

The science

While the world's climate has always varied naturally, the vast majority of scientists now believe that rising concentrations of "greenhouse gases" in the earth's atmosphere, resulting from economic and demographic growth over the last two centuries since the industrial revolution, are overriding this natural variability and leading to irreversible climate change. In 1995, the Second Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) confirmed that "the balance of evidence suggests that there is a discernible human influence on global climate". The Report projected that global mean surface temperatures would increase by between 1 and 3.5 C by 2100, the fastest rate of change since the end of the last ice age, and that global mean sea levels would rise by between 15 and 95 cm by 2100, flooding many low-lying coastal areas. Changes in rainfall patterns are also predicted, increasing the threat of drought, floods or intense storms in many regions.

The climate system is complex, and scientists still need to improve their understanding of the extent, timing and impacts of climate change. However, what we know already alerts us to the potentially dramatic negative impacts of climate change on human health, food security, economic activity, water resources and physical infrastructure. Farming could be seriously disrupted, leading to falling crop yields in many regions. Tropical diseases are expected to spread; the geographical zone of potential malaria transmission, for example, could increase from around 45% of the world population today to approximately 60% by the latter half of this century. Sea level rise and changing weather patterns could also trigger large-scale migration from more seriously affected areas. While no one will be able to escape from climate change, it is the poorer people and countries who are most vulnerable to its negative impacts.

The international response to the problem

The emergence of political concern

Increasing scientific evidence of human interference with the climate system, coupled with growing public concern over global environmental issues, began to push climate change onto the political agenda in the mid-1980s. Recognising the needs of policy-makers for authoritative and up-to-date scientific information, the World Meteorological Organization (WMO) and the UN Environment Programme (UNEP) established the IPCC in 1988. That same year, following a proposal by the Government of Malta, the United Nations General Assembly took up the issue of climate change for the first time and adopted resolution 43/53 on the "Protection of global climate for present and future generations of mankind". In 1990, the IPCC issued its First Assessment Report, confirming that climate change was indeed a threat and calling for a global treaty to address the problem. This call was echoed by the Ministerial Declaration of the Second World Climate Conference, held in Geneva in October/November of that year. The UN General Assembly responded to these calls in December of 1990, formally launching negotiations on a framework convention on climate change by its resolution 45/212, and establishing an Intergovernmental Negotiating Committee (INC) to conduct those negotiations.

The Climate Change Convention

The INC met for the first time in February 1991. After just 15 months, on 9 May 1992, the INC adopted by consensus the United Nations Framework Convention on Climate Change. The Convention was opened for signature at the UN Conference on Environment and Development (UNCED), the so-called "Earth Summit", in Rio de Janeiro, Brazil, on 4 June 1992, and came into force on 21 March 1994. Today, 181 governments and the European Community are Parties (see section on Parties) to the Convention. To become a Party, a country must ratify, accept, approve, or accede to, the Convention (follow the link for an explanation of these terms). Parties meet regularly at the annual Conference of the Parties (COP) to review the implementation of the Convention and continue talks on how best to tackle climate change. The Convention sets an "ultimate objective" of stabilizing atmospheric concentrations of greenhouse gases at safe levels. Such levels, which the Convention does not quantify, should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. To achieve this objective, all countries have a general commitment to address climate change, adapt to its effects, and report on the action they are taking to implement the Convention. The Convention then

divides countries into two groups: those listed in its Annex I (known as "Annex I Parties") and those that are not so listed (so-called "non-Annex I Parties").

The Annex I Parties are the industrialized countries who have historically contributed the most to climate change. Their per capita emissions are higher than those of most developing countries, and they have greater financial and institutional capacity to address the problem. The principles of equity and "common but differentiated responsibilities" enshrined in the Convention therefore require these Parties to take the lead in modifying longer-term trends in emissions. To this end, Annex I Parties are committed to adopting national policies and measures with the non-legally binding aim of returning their greenhouse gas emissions to 1990 levels by the year 2000. They must also submit regular reports, known as National Communications, detailing their climate change policies and programmes, as well as annual inventories of their greenhouse gas emissions (Emission Inventories). Most Annex I Parties have now submitted two National Communications and the third is due on 30 November 2001. These National Communications are subject to individual In-Depth Review by teams of experts and a trial period will be launched in 2000 for a technical review of the annual Emission Inventories.

The Annex I Parties include both the relatively wealthy countries that were members of the Organization for Economic Co-operation and Development (OECD) in 1992, and countries with "economies in transition" (known as EITs), that is, the Russian Federation and several other Central and Eastern European countries. The Convention allows EITs "a certain degree of flexibility" in implementing their commitments, owing to the major economic and political upheavals that have taken place in these countries. Several EITs have invoked this clause to choose a baseline earlier than 1990, that is, before the economic changes which led to big reductions in their emissions. The OECD members of Annex I are also listed in the Convention's Annex II. These countries have a special obligation to provide "new and additional financial resources" to developing countries to help them tackle climate change, as well as to facilitate the transfer of climate-friendly technologies to both developing countries and EITs.

The countries listed in Annex I are as follows: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey*, Ukraine, UK and USA. (Countries whose names are marked in bold are also included in Annex II and countries classified as EITs are underlined. Countries added to Annex I at COP 3 in 1997 are marked in italics, and an asterisk (*) denotes countries that have not yet ratified the Convention).

All remaining countries, basically, the developing countries, make up the group of non-Annex I Parties. These countries must report in more general terms on their actions to address climate change and adapt to its effects. The time frame for the submission of their initial National Communications, including their Emission Inventories, is less tight than for Annex I Parties and is contingent on the receipt of funding from the Convention's financial mechanism, operated by the Global Environment Facility (GEF). Because of this, non-Annex I Parties have only recently started to submit their National Communications. A consultative group of experts on non-Annex I Party National Communications was established by COP 5, in order to help improve those communications.

The Convention recognises that financial assistance and technology transfer are critical to enabling non-Annex I Parties to address climate change and adapt to its effects, in the context of their sustainable development. Financial assistance is provided by Annex II Parties and mostly channelled through the Convention's financial mechanism, operated by the GEF. The long-standing issue of technology transfer was given renewed impetus at COP 4, when Parties established a "consultative process" under the Chairman of the Subsidiary Body for Scientific and Technological Advice (SBSTA) (see section on sessions of subsidiary bodies) with the aim of identifying meaningful and effective actions to promote the transfer of climate-friendly technology. Greater emphasis is now also being placed on supporting capacity-building initiatives in both non-Annex I Parties and EITs; for the first time, a separate decision on this issue was taken at COP 5.

The Kyoto Protocol

At the first COP, which was held in Berlin, Germany, in 1995, Parties decided that the specific commitments in the Convention for Annex I Parties were not adequate. They therefore launched a new round of talks to decide on stronger and more detailed commitments for these countries. After two and a half years of intense negotiations, the Kyoto Protocol was adopted at COP 3 on 11 December 1997.

The Kyoto Protocol commits Annex I Parties to individual, legally-binding targets to limit or reduce their greenhouse gas emissions, adding up to a total cut of at least 5% from 1990 levels in the period 2008-2012. The individual targets for Annex I Parties are listed in the Protocol's Annex B, and range from a -8% cut for the EU and several other countries, to a +10% increase for Iceland. (Under the terms of the Protocol, the EU may redistribute its target among its 15 member states. It has already reached agreement on such a scheme, known as a "bubble".) Although they are listed in the Convention's Annex I, Belarus and Turkey are not included in the Protocol's Annex B as they were not Parties to the Convention when the Protocol was adopted.

The targets cover emissions of the six main greenhouse gases, namely:

- carbon dioxide (CO₂),
- methane (CH₄),
- nitrous oxide (N₂O),
- hydrofluorocarbons (HFCs),
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF₆).

Some specified activities in the land-use change and forestry sector (namely, afforestation, deforestation and reforestation) that emit or remove carbon dioxide from the atmosphere are also covered. All changes in emissions, and in removals by so-called "sinks", go into the same basket for accounting purposes.

The Protocol also establishes three innovative "mechanisms", known as joint implementation, emissions trading and the clean development mechanism, which are designed to help Annex I Parties reduce the costs of meeting their emissions targets by achieving or acquiring reductions more cheaply in other countries than at home. The clean development mechanism also aims to assist developing countries in achieving sustainable development by promoting environmentally-friendly investment in their economies from industrialized country governments and businesses. However, while these mechanisms were agreed in principle in the Protocol, their operational details must now be fleshed out. In addition, Parties must develop the compliance system outlined in the Protocol, and further work is also needed on provisions for the land-use change and forestry sector, methodologies for estimating emissions and removals, and reporting obligations. How to address the vulnerability of developing countries is another issue on the post-Kyoto political agenda; some developing countries, such as low-lying island nations, are highly vulnerable to the impacts of climate change, others feel more threatened by the potential economic repercussions of mitigation action. The Convention recognises both these dimensions of vulnerability, and also emphasises the special situation of least developed countries. At COP 4 in 1998, Parties agreed to a programme of work (the "Buenos Aires Plan of Action") to reach agreement on these various issues, to be completed by COP 6 in November 2000.

The Kyoto Protocol was open for signature between 16 March 1998 and 15 March 1999. 84 countries signed the Protocol during that period, including all but two Annex I Parties, indicating their acceptance of the text and intent to become Parties to it (states that did not sign may also become Parties). In order to enter into force, the Protocol must now be ratified (or adopted, approved, or acceded to) by 55 Parties to the Convention, including Annex I Parties accounting for 55% of carbon dioxide emissions from this group in 1990 (a list of the 1990 emissions of Annex I Parties can be found in the annex to the COP 3 report). Although some countries have already ratified or acceded to the Protocol (as of 22 May 2000), no Annex I Party has yet done so, and most are awaiting the outcome of negotiations on the operational details of the Protocol at COP 6. Many Parties wish to bring the Protocol into force by 2002, in time for the tenth anniversary of the Rio Conference and of the adoption and signing of the Convention.

Key landmarks in the climate change process

Date	Landmark
1988	WMO and UNEP establish the IPCC. The UN General Assembly takes up climate change for the first time.
1990	The IPCC's First Assessment Report is published. It recommends the launch of negotiations on a global climate change agreement. The Second World Climate Conference also calls for the launch of negotiations. The UN General Assembly opens negotiations on a framework convention on climate change and establishes an Intergovernmental Negotiating Committee to conduct these.
February 1991	The INC meets for the first time.
9 May 1992	The UN Framework Convention on Climate Change is adopted in New York.
4 June 1992	The Convention is opened for signature at the Earth Summit in Rio de Janeiro, Brazil.
21 March 1994	The Convention enters into force, after receiving 50 ratifications.
7 April 1995	COP 1 launches a new round of negotiations on a "protocol or another legal instrument".
11-15 Dec 1995	The IPCC approves its Second Assessment Report on the science of climate change. Its findings underline the need for strong policy action.
19 July 1996	COP 2 takes note of the Geneva Ministerial Declaration, which acts as a further impetus to the on-going negotiations.
11 Dec 1997	COP 3 adopts the Kyoto Protocol to the UN Framework Convention on Climate Change in Kyoto, Japan.
16 March 1998	The Kyoto Protocol is opened for signature at UN headquarters in New York. Over a one year period, it receives 84 signatures.
14 Nov 1998	COP 4 adopts the "Buenos Aires Plan of Action" to strengthen the implementation of the Convention and prepare for the Protocol's entry into force. COP 6 is set as the deadline for adopting many important decisions.
13 – 24 Nov 2000	COP 6 will meet in The Hague, the Netherlands, to take key decisions on the implementation of the Convention and details of the Protocol.
2002	"Rio + 10" "Earth Summit 2002", ten years on from the 1992 "Earth Summit".
200?	<i>Entry into force of the Kyoto Protocol?</i>
2005	Annex I Parties must have made "demonstrable progress" in achieving their commitments under the Protocol. Launch of talks for the next round of commitments post-2012.
2008-12	First commitment period under the Kyoto Protocol.
2013-17?	<i>Second commitment period?</i>

The institutions created

The Intergovernmental Negotiating Committee

The negotiations on the Convention were conducted by the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC), established by the UN General Assembly. The INC met five times under the chairmanship of Jean Ripert (France), including a resumed fifth session in May 1992 at which the Convention was adopted. The INC met a further six times after the adoption of the Convention to prepare for the first session of the COP, this time under the chairmanship of Raúl Estrada-Oyuela (Argentina). Over this period, the INC developed recommendations for decisions on the implementation of the Convention to be taken at COP 1, including on the financial mechanism, reporting obligations and the adequacy of commitments. The INC met for the last time in February 1995, before handing over the results of its work to COP 1 in late March of that year.

The Conference of the Parties

The Conference of the Parties (COP) is the "supreme body" of the Convention, that is, its highest decision-making authority. It is an association of all the countries that have ratified or acceded to the Convention.

The COP is responsible for keeping international efforts to address climate change on track. It reviews the implementation of the Convention and examines the commitments of Parties in light of the Convention's objective, new scientific findings and experience gained in implementing climate change policies. A key task for the COP is to review the National Communications submitted by Parties. Based on this information, the COP assesses the effects of the measures taken by Parties and the progress made in achieving the ultimate objective of the Convention.

The COP meets every year, unless the Parties decide otherwise. So far, it has met five times in different cities. The venue for the COP usually rotates between the five recognized UN regions together with the position of COP President (see Table below). When no offer is received to host the COP, it meets in Bonn, the seat of the secretariat (formerly Geneva).

Dates, venues and Presidents for the sessions of the COP held to date

COP	Dates	Venue	President (all of ministerial rank)
COP 1	28 March - 7 April 1995	Berlin	Angela Merkel (Germany)
COP 2	8 – 19 July 1996	Geneva	Chen Chimutengwende (Zimbabwe)
COP 3	1 – 11 Dec. 1997	Kyoto	Hiroshi Ohki (Japan)
COP 4	2 – 14 Nov. 1998	Buenos Aires	Maria Julia Alsogaray (Argentina)
COP 5	25 October - 5 November 1999	Bonn	Jan Szyszko (Poland)
COP 6	13 – 24 Nov 2000	The Hague	Jan Pronk (President-designate) (Netherlands)

The Convention COP will serve as the "meeting of the Parties" (or "MOP") to the Protocol. This body, known by the acronym COP/MOP, will meet during the same period as the COP. Parties to the Convention that are not Parties to the Protocol will be able to participate in the COP/MOP as observers, but with no right to take decisions. The functions of the COP/MOP relating to the Protocol are similar to those carried out by the COP for the Convention.

The Subsidiary Bodies

The Convention also established two standing "subsidiary bodies": the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). These bodies give advice to the COP and each has a specific mandate.

As its name suggests, the SBSTA's task is to provide the COP with advice on scientific, technological and methodological matters relating to the Convention. It serves as the link between the scientific information provided by expert sources such as the Intergovernmental Panel on Climate Change (IPCC) on the one hand, and the policy-oriented needs of the COP on the other. The SBSTA works closely with the IPCC, sometimes requesting specific studies from it.

The SBI helps with the assessment and review of the implementation of the Convention. It plays a key role in examining the National Communications and Emission Inventories submitted by Parties and provides advice to the COP on the financial mechanism (operated by the Global Environment Facility), as well as on administrative and budgetary matters.

The SBSTA and SBI work together on cross-cutting issues that touch on both their areas of expertise. These include the Protocol's mechanisms, compliance, capacity building and the vulnerability of developing countries to climate change and to mitigation measures.

The subsidiary bodies are open to participation by all Parties to the Convention, and governments often send representatives who are experts in the fields of the respective bodies. The Chairmen of the subsidiary bodies that have served to date are listed in the table below. The SBSTA and the SBI meet in parallel, at least twice a year. When they are not meeting in conjunction with the COP, the subsidiary bodies usually convene at the seat of the secretariat. Exceptionally, in September 2000, they will meet for their thirteenth sessions in Lyon, France.

Past and present Chairmen of the SBSTA and the SBI

Term of Office	SBSTA	SBI
Elected at COP 1 Served SBSTA 1-7	Tibor Fargo (Hungary)	Mahmoud Ould El Ghaoud (Mauritania)
Elected at COP 3 Served SBSTA 8-10	Chow Kok Kee (Malaysia)	Bakary Kante (Senegal)
Elected at COP 5 Expected to serve SBSTA 11-13	Harald Dovland (Norway)	John Ashe (Antigua and Barbuda)

In addition to the SBSTA and the SBI, the COP may establish additional bodies as needed. Thus far, it has established two:

The Ad hoc Group on the Berlin Mandate (AGBM) was set up at COP 1 to conduct the talks that led to the adoption of the Kyoto Protocol. It met eight times, including a resumed eighth session on the eve of COP 3, under the Chairmanship of Raúl Estrada-Oyuela (Argentina).

The Ad hoc Group on Article 13 (AG13) was also launched by COP 1, to explore how to implement Article 13 of the Convention. Article 13 calls for the establishment of a "multilateral consultative process" to help governments overcome difficulties they may experience in meeting their commitments. AG13 met six times, under the Chairmanship of Patrick Széll (UK), and made its final report to COP 4. Although it was able to agree on almost all elements of a multilateral consultative process, there was no consensus over the composition of the committee that would run this process.

COP 4 established a joint working group under the SBI and SBSTA to develop the compliance system outlined in the Protocol. The joint working group meets in parallel with the SBSTA and SBI and reports to the COP through the subsidiary bodies. It is not, therefore, a subsidiary body itself. The joint working group is expected to complete its work by COP 6. It is co-chaired by Harald Dovland (Norway) and Tuiloma Neroni Slade (Samoa), who replaced Espen Ronneberg (Marshall Islands) after COP 5.

The Kyoto Protocol will make use of the same permanent subsidiary bodies as the Convention, but only Parties to the Protocol will have the right to take decisions on Protocol matters. The COP/MOP will also be able to establish its own subsidiary bodies, if needed.

Bureaux

The work of the COP and each subsidiary body is guided by a Bureau, elected by Parties to the Convention at the start of each session of the COP. To ensure continuity, the elected Bureaux serve not only at sessions of the COP and subsidiary bodies but during inter-sessional periods as well.

The COP Bureau consists of 11 members; two are nominated by each of the five UN regional groups and one place is reserved for a representative of small island developing states. The members include the COP President, seven Vice Presidents, the Chairmen of the SBSTA and the SBI, and a Rapporteur. The position of COP President is typically held at ministerial level. He or she is responsible for presiding over the work of the COP and facilitating agreement among Parties. The Vice-Presidents provide support to the President and may be called upon to consult on specific issues. The Rapporteur is responsible for the report on the session. The positions of the President and the Rapporteur are formally required to rotate among the five UN regional groups (see section on the participants in the Convention process), while the positions of the subsidiary body Chairmen are subject to an informal rotation. The Bureau is elected for one year, although its members may be re-elected for a second term.

The SBSTA and SBI Bureaux consist of a Chairman, a Vice-Chairman and a Rapporteur, who perform similar functions to their counterparts on the COP Bureau and usually serve for two years.

The COP, SBSTA and SBI Bureaux will also serve the Protocol, but only members representing Parties to the Protocol will be able to sit on the Bureaux when Protocol issues are being discussed.

Financial mechanism

The Convention established a financial mechanism to provide funds on a grant or concessional basis to help developing countries to implement the Convention and address climate change. The Convention assigned the role of operating the financial mechanism to the Global Environment Facility (GEF) on an interim basis and, in 1996, COP 2 adopted a memorandum of understanding with the GEF on their respective roles and responsibilities. In 1998, COP 4 entrusted the GEF with this role on an on-going basis, subject to review every four years. The multi-billion-dollar GEF was established by the World Bank, the UN Development Programme (UNDP) and the UN Environment Programme (UNEP) in 1990 to fund certain developing country projects that have global environmental benefits, not only in the area of climate change, but also in biodiversity, protection of the ozone layer and international waters. Since the establishment of the GEF in 1991 (initially as a pilot programme), a total of US\$5.7 billion has been allocated to climate change activities. Over the last reporting period July 1998 – June 1999, total project financing for climate change activities during the reporting period exceeded US\$534 million, of which GEF provided US\$115 million in grant financing. Approximately US\$420 million was leveraged in co-financing for the project activities from bilateral agencies, recipient countries, and the private sector.

The financial mechanism is accountable to the COP, which decides on its climate change policies, programme priorities and eligibility criteria for funding. The COP therefore provides regular policy guidance to the financial mechanism on its climate change work, based on advice from the SBI.

The Kyoto Protocol will use the same financial mechanism.

Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change is not an institution of the Convention but it provides vital scientific input to the climate change process. It was established in 1988 by the World Meteorological Organization (WMO) and UNEP to bring together leading scientists from all over the world to conduct rigorous surveys of the latest technical and scientific literature on climate change. The IPCC is best known for its assessment reports that are widely recognized as the most credible sources of information on climate change. The First Assessment Report in 1990 helped launch negotiations on the Convention. The findings of the Second Assessment Report, which was approved in 1995, galvanized many governments into intensifying negotiations on what was to become the Kyoto Protocol. The Third Assessment Report will be released in 2001.

The IPCC also produces "Technical Papers" and "Special Reports" on specific issues at the request of the SBSTA and carries out important work on improving methodologies for estimating greenhouse gas emissions. The SBSTA acts as a link between the COP and the IPCC, and a joint working group of the Bureaux of the two bodies meets regularly to ensure coordination. A contribution is made to the costs of the IPCC from the Convention's Programme Budget.

The participants in the Convention process

Parties

Each Party to the Convention is represented at sessions of the Convention bodies by a national delegation consisting of one or more officials who are empowered to represent, and negotiate on behalf of, their government.

Based on the tradition of the UN, Parties are organized into five regional groups, mainly for the purposes of electing the Bureaux. These groups are: Africa, Asia, Eastern Europe, Latin America and the Caribbean (GRULAC) and the Western Europe and Others Group (WEOG). (The "others" in WEOG include Australia, Canada, Iceland, New Zealand, Norway, Switzerland and the US, but not Japan, which is in the Asian Group).

The five regional groups, however, are not usually used to present the substantive interests of Parties and several other groupings are more important to the climate negotiations.

Developing countries generally work through the Group of 77 and China to establish common negotiating positions on issues of interest to them, such as finance and technology transfer. The G-77 was founded in 1964 in the context of the UN Conference on Trade and Development (UNCTAD) and now functions throughout the UN system, comprising some 132 developing country members. The country holding the Chair of the G-77 and China in New York (which rotates every year) often speaks for the Group as a whole. However, because the G-77 and China is a diverse group with differing interests on climate change issues, individual developing countries also intervene in debates, as do groups within the G-77, such as the African Group and AOSIS.

The Alliance of Small Island States (AOSIS) is a coalition of some 43 low-lying and small island countries, most of which are members of the G-77, that are particularly vulnerable to sea-level rise. The AOSIS countries are united by the threat that climate change poses to their survival, and frequently adopt a common stance in negotiations. They were the first to propose a draft text during the Kyoto Protocol negotiations, calling for cuts in carbon dioxide emissions of 20% from 1990 levels by 2005.

The 15 members of the European Union meet in private to agree on common positions for the negotiations. The country that holds the EU Presidency - a position that rotates every six months - then speaks for the group as a whole. As a regional economic integration organization, the European Community itself can be, and is, a Party to the Convention. However, it does not have a separate vote from its members.

The "JUSSCANNZ" group is a coalition of the non-EU developed countries, which acts as an information-sharing and discussion forum. JUSSCANNZ stands for Japan, the US, Switzerland, Canada, Australia, Norway and New Zealand. Iceland, Mexico, the Republic of Korea and other invited countries may also attend meetings.

The "Umbrella Group" is a variation on the JUSSCANNZ coalition. Although there is no formal list, the Group is usually made up of the JUSSCANNZ members including Iceland, plus the Russian Federation and Ukraine, but without Switzerland. This informal group emerged following the adoption of the Kyoto Protocol, and works together mostly on the Protocol's mechanisms, especially emissions trading.

Several other groups also work together in the climate change process, including the Organization of Petroleum Exporting Countries (OPEC) and the Arab Group.

States that are not Parties to the Convention (of which there are now only a few) may attend sessions of the COP and subsidiary bodies as observers.

Observers

Several categories of observer organizations also attend sessions of the COP and its subsidiary bodies. These include: Representatives of the United Nations secretariat units and bodies (e.g. UNEP and UNCTAD), as well as its specialized agencies and related organizations (e.g. WMO); Intergovernmental organizations (IGOs), such as the OECD and its International Energy Agency (IEA); and Non-governmental organizations (NGOs). Observer delegates routinely outnumber State representatives at sessions of the Convention bodies.

Currently, almost 400 non-governmental organizations and about 35 intergovernmental organizations are accredited. In order to be accredited as observers, non-governmental organizations must be legally constituted entities, "not for profit", and competent in matters related to the Convention. A broad spectrum of NGOs represent different interests, including environmental groups, business and industry associations, local governments and municipal authorities, research and academic institutes,

parliamentarians, labour organizations and religious bodies. Three main constituency groupings have emerged to facilitate interaction: Environmental groups; Business and industry associations; and Local governments and municipal authorities.

Observers may attend meetings of the Convention bodies (COP, SBSTA and SBI meetings) without the right to vote, unless at least one-third of Parties object. At COP 4, it was formally decided to allow observers to attend open-ended contact groups, subject to the same proviso. However, the contact group Chairman may close the group to observers at any time. Informal closed meetings are not open to observers. Observers may make interventions during meetings, subject to the approval of the Chairman. An opportunity is also extended to NGOs to address the COP and subsidiary bodies in plenary meetings. These statements are encouraged to be on behalf of a broad constituency.

Limited logistical support is made available to the NGO constituencies during meetings. A tradition of "special events" and "exhibits" has developed on the margins of the official meetings. These are mainly organised by the NGO community and provide a forum for the exchange of information between observers, Party delegates, UN bodies and agencies, and IGOs. The special events, including workshops and seminars, allow for interaction between the various players in the Convention process and provide a forum for civil society to voice its concerns and ideas to Parties and the media. The exhibits provide participants with a variety of climate related information, including new technologies, scientific information on climate change, activities related to climate change mitigation or adaptation, project results, videos, and a host of other related materials. At COP 5 there were over 145 special events and 50 exhibits.

Media

Accredited representatives of the media may also attend sessions of the Convention bodies as observers. The number of media representatives varies, depending on the profile of the session; at COP 3, for example, some 3,500 media representatives were present to cover the final stages of the Kyoto Protocol negotiations, while only 530 or so attended COP 5. A high media presence is expected for COP 6.

The procedures

The proceedings of the COP and subsidiary bodies are governed by written rules of procedure. However, the COP has not yet formally adopted its rules of procedure, owing to differences in opinion over the voting rule. Discussions are continuing to try to find a compromise. Because all the other rules are agreed, the draft Rules of Procedure are "applied" at each session, with the exception of the rule on voting.

As there is no agreed voting rule, almost all decisions must be adopted by consensus. Consensus is usually interpreted to mean that there is no stated objection to a decision, and is not quite the same as unanimity. For example, a Party may choose not to object formally to a decision, but to ask for its concerns to be taken note of in the report on the session.

The Convention text, however, may be amended by a three-fourths majority vote, if it proves impossible to reach consensus. This is because the Convention itself includes this rule. Once an amendment has been adopted, it must be ratified by three-fourths of the Parties before it enters into force. No amendment to the Convention has yet been adopted.

The procedure is similar for the amendment of annexes to the Convention. However, these amendments do not need to be ratified and come into force automatically, except for Parties that lodge a written objection. Annex I was amended at COP 3, by consensus, to add the names of Croatia, Liechtenstein, Monaco and Slovenia, and to replace Czechoslovakia with the Czech Republic and Slovakia. The amendment came into force on 13 August 1998.

There is no stated rule in the Convention for the adoption of protocols. Therefore, in the absence of an agreed voting rule, these must be adopted by consensus and define their own entry into force procedures. The Kyoto Protocol was adopted in this way at COP 3.

The draft Rules of Procedure set out general rules for debating and negotiating. An important rule is that proceedings of formal meetings must be interpreted into all six languages of the UN (Arabic, Chinese, English, French, Russian and Spanish). Delegates may only speak when they are given the floor by the President or Chairman, and a quorum of two-thirds of Parties must be present for a decision to be taken. The rules also cover the drafting and adoption of agendas and the participation of observers (see section on observers).

The Kyoto Protocol will apply the Convention's rules of procedure, unless its Parties decide otherwise by consensus. Like the Convention, the Protocol states that amendments to it can be adopted by a three-

fourths majority vote if consensus is not possible. Unlike the Convention, however, amendments to the Protocol's Annexes A and B (listing greenhouse gases covered by the Protocol and the emission targets of Parties, respectively) can only come into force after ratification by three-fourths of Parties. Furthermore, any changes to the list of Parties in Annex B must be approved in writing by the Party concerned.

The secretariat

The COP, subsidiary bodies and Bureaux are serviced by a secretariat, whose mandate is laid out in general terms in Article 8 of the Convention. The main functions of the secretariat are to make practical arrangements for sessions of the Convention bodies, to assist Parties in implementing their commitments, to provide support to on-going negotiations and to coordinate with the secretariats of other relevant international bodies, notably the Global Environment Facility (GEF) and the Intergovernmental Panel on Climate Change (IPCC). Specific tasks of the secretariat include the preparation of official documents for the COP and subsidiary bodies, the coordination of in-depth reviews of Annex I Party national communications and the compilation of greenhouse gas inventory data. The greater technical work needed since the adoption of the Kyoto Protocol (e.g. on the mechanisms, methodologies and land-use change and forestry) is leading to a trend of increased technical expertise within the secretariat. The Convention secretariat will also serve the Protocol.

The secretariat is institutionally linked to the United Nations and administered under United Nations Rules and Regulations. It now employs some 100 staff from all over the world. Its head, the Executive Secretary, is appointed by the Secretary-General of the United Nations in consultation with the COP through its Bureau, and currently holds the rank of Assistant-Secretary-General. The Executive Secretary reports to the Secretary-General through the Under-Secretary-General heading the Department of Management on administrative and financial matters, and through the Under-Secretary-General heading the Department for Economic and Social Affairs on other matters. The present Executive Secretary, Michael Zammit Cutajar (Malta), has headed the secretariat since it was set up in 1991.

As a neutral body of international civil servants, the secretariat is accountable, through the Executive Secretary, to the COP and subsidiary bodies and carries out those tasks that fall under its mandate in the Convention and Programme Budget. The COP and subsidiary bodies will often request a specific assignment from the secretariat within this mandate, e.g. to prepare a background study on a particular issue. The secretariat is guided in its work by the Bureaux of the Convention bodies.

Since August 1996, the secretariat has been located in Bonn, Germany. It moved from its previous location in Geneva, Switzerland, following an offer from Germany to host the secretariat, which was accepted by COP 1.

Every two years, the Executive Secretary proposes a Programme Budget, setting out the main tasks to be performed by the secretariat in the coming biennium and the funding needed to carry out this work. This proposed Programme Budget is considered in the SBI, which then recommends a Programme Budget for approval by the COP. For the current biennium 2000-2001, the Programme Budget for the secretariat stands at around US\$12 million per year, and is funded by contributions from Parties, their shares being based on the UN scale of assessment. The Government of Germany (the host country of the secretariat) provides a further annual contribution to offset planned expenditures, currently amounting to DM 1.5 million as well as an annual contribution of DM 3.5 million to support the costs of conference and meeting facilities and related requirements for events in Bonn (the "Bonn Fund"). Additional voluntary contributions also fund participation by developing countries (approximately US\$1.8 million a year) and supplementary activities (averaging around US\$3 million a year). The secretariat's structure is kept under review and modified to ensure that it responds to the changing needs of the climate change process.

The secretariat is currently organized into six programmes (see organigramme of the secretariat), each headed by a "Coordinator", whose main areas of responsibility are as follows:

Executive Direction and Management (EDM): EDM, the office of the Executive Secretary, supports the Executive Secretary in the overall management of the secretariat, in developing policies and in ensuring the coherence of the secretariat's work. The Executive Secretary gives advice to the Convention bodies and their Bureaux, and promotes partnerships with other organizations. The Executive Secretary is assisted by a Deputy, designated from among the Coordinators of the other programmes.

Science and Technology (S&T): S&T deals with the methodological, scientific and technological aspects of the Convention process, providing support to the SBSTA. Its tasks include developing methodologies to improve data accuracy, identifying options to promote the transfer of climate-friendly technologies,

elaborating methodologies and tools for evaluating adaptation strategies and maintaining close contact with the IPCC. An important element of S&T's current work programme concerns the technical aspects of the Protocol, for example, the drafting of reporting guidelines and issues relating to carbon "sinks".

Implementation (IMP): IMP is at the frontline of assisting countries in implementing their commitments and is responsible for support to the SBI. IMP compiles and synthesizes National Communications and inventory data, coordinates In-Depth Reviews of Annex I Party National Communications, facilitates capacity-building activities for developing countries and ensures liaison with the Convention's financial mechanism (operated by the GEF). IMP is also responsible for supporting negotiations on a compliance system under the Protocol and on the vulnerability of developing countries to climate change and to mitigation measures.

Planning, Coordination and Emerging Issues (PCEI): This programme provides support to negotiations under the SBSTA and SBI on the design of the Kyoto Protocol mechanisms and has responsibility for the analysis of new and cross-cutting issues. It also supports the Executive Secretary in strategic planning, and in monitoring the coherence of the secretariat's substantive preparatory work for COP/MOP 1 (e.g. on compliance and reporting obligations). Another key task for PCEI is supporting the implementation of Activities Implemented Jointly (AIJ).

Intergovernmental and Conference Affairs (ICA): A core task of the secretariat is organizing sessions of the COP, subsidiary bodies and informal meetings such as workshops. ICA organizes the substantive agenda of the sessions of the COP, makes arrangements for COP Bureau meetings and supports the COP President. In addition, it finds suitable venues for the sessions of COP and subsidiary bodies, coordinates the production and dissemination of official documents and makes all the logistical arrangements for interpretation into the six UN languages, accrediting delegates and related services. Furthermore, ICA is responsible for relations with Parties, including the maintenance of a system of National Focal Points.

Information, Outreach and Administrative Services (IOAS): IOAS disseminates information on climate change and the Convention process, including official documents, data and public information products. A key aim of IOAS' work is to raise public awareness of climate change and build capacity in the secretariat and among Parties to network, exchange information and communication technologies. IOAS is active in forging links with other UN and intergovernmental bodies engaged in climate change-related work (e.g. the UN Environment Programme (UNEP), the UN Development Programme (UNDP), the UN Conference on Trade and Development (UNCTAD), the UN Industrial Development Organization (UNIDO), the Convention on Biological Diversity and the Convention to Combat Desertification). IOAS is also responsible for the administration and financial management of the secretariat, i.e. administering the financial resources and staff; liaising with the United Nations and the host Government on administrative matters.

The Climate Change process at work

Sessions of the COP

The climate change process revolves around the annual sessions of the COP, usually held over two weeks, and often in parallel with sessions of the SBSTA and SBI. A few thousand participants attend these sessions, including government delegates and observers. The attendance record so far was at COP 3, with some 10,000 participants, including around 2,500 Party delegates, 4,000 observer organizations, and 3,500 media representatives.

Plenary meetings of the COP, that is, formal meetings of all the Parties, take place in three-hour timeslots, from 10 a.m. to 1 p.m. and from 3 p.m. to 6 p.m. Meetings can also be held in the evening, sometimes going on all night when a deadline is looming. The timing and length of plenary meetings is restricted by the availability of interpreters.

The COP President, with advice from the Bureau and the secretariat, must decide how to structure the work of the session. Because of the formal nature of the COP, most of its work is usually referred to the SBSTA and SBI, which try to broker agreement and forward draft decisions to the COP. This frees the COP President to consult informally behind the scenes on the most controversial issues, often at ministerial level.

An alternative approach is for the COP to delegate work to a group known as a "Committee of the Whole", with its own Chairman, to conduct negotiations and report back to the COP. This approach was used at COP 1, and also at COP 3 for the final negotiations on the Kyoto Protocol.

Smaller informal working groups are often convened within this larger structure to take up specific issues. Sometimes these are open-ended contact groups that are attended by all interested delegates and, subject to the approval of Parties, observers. Sometimes they are informal consultations or drafting groups that involve a smaller but representative number of delegates and are closed to observers. These working groups can help to move talks forwards by allowing delegates to talk more freely in a more informal atmosphere. However, efforts are made to convene no more than two meetings at any one time, because of difficulties faced by small delegations in covering a multiplicity of events. These informal groups do not take decisions, but forward proposals to their convening body (the COP or subsidiary bodies).

The COP President may also invite "Friends of the Chairman", that is, delegates representing the main interest groups, to give advice on the most tricky issues under negotiation.

Thus far, sessions of the COP have included a high-level segment involving ministers. This often takes place during the last few days of the session, so that the political weight of ministers can be brought to bear on the final and most difficult decisions.

The aim of these different negotiating mechanisms is to forge agreement on decisions that reflect the consensus view of Parties. Draft text that is under discussion but not yet agreed is placed in square brackets. As agreement is reached, the brackets are said to be "lifted".

Once a draft decision is agreed in an informal working group it may then be discussed and approved by the subsidiary bodies or the Committee of the Whole. It is then forwarded for final adoption to the COP Plenary. If there are no objections, the President will bang his or her gavel on the table and declare that the decision is adopted, using the time-honoured formula "it is so decided". The decision cannot normally be reopened, though explanatory statements may be made after adoption.

The COP has adopted some 20 decisions at each of its sessions so far. These decisions make up a detailed "rule book" for the implementation of the Convention and are included in the formal COP reports. Decisions are known by their number (e.g. decision 4/CP.3 is decision number four taken at COP 3). Key decisions are sometimes given a more high-profile title, with a premium attached to the "pole position", that is, decision number one. For example, decision 1/CP.1, which launched negotiations on the Kyoto Protocol, is known as the "Berlin Mandate". The adoption of the Protocol was effected through decision 1/CP.3, while the programme of work adopted by decision 1/CP.4 is termed the "Buenos Aires Plan of Action".

In addition to decisions, the COP can produce other outcomes, such as declarations or resolutions. These are non-binding political statements intended to guide the work of the Convention or express the will of the COP. For example, the Geneva Ministerial Declaration, which was taken note of (but not adopted) at COP 2, helped to instill new momentum in the negotiations on the Kyoto Protocol. Similarly, at COP 4, Parties adopted a resolution of solidarity with Central America, following the devastating hurricane that had just hit that region.

Sessions of the subsidiary bodies

The subsidiary bodies are the main working bodies of the Convention and meet once or twice between COP sessions. The sessions of the SBSTA and the SBI held outside of the annual COP are also important events in the climate change process, but attract somewhat fewer participants (around 1,500). The organization of work of the SBSTA and SBI, and the negotiating techniques available to the presiding officers, are similar to those described for the COP.

As the "supreme body" of the Convention, however, only the COP takes decisions. The main products of the SBSTA and SBI are therefore recommendations for draft decisions, which are forwarded to the COP for consideration and adoption. In addition, the subsidiary bodies adopt conclusions, which are included in their reports. The subsidiary bodies often invite Parties to submit views or proposals on particular issues in between sessions, in order to move talks forward when they are in session. These are circulated by the secretariat in "Misc" (miscellaneous) documents.

In between sessions

The climate change process does not stop when the COP and subsidiary bodies are not in session. Parties continue their efforts to implement the Convention at home and work on their negotiating positions for the next sessions. If they were requested to do so by the SBSTA or the SBI at the last session, they submit written views or proposals to the secretariat on particular topics. The secretariat prepares background papers, compiles submissions from Parties, and makes arrangements for the next sessions.

The COP Bureau usually meets two or three times in between COP sessions, while the COP President may also choose to convene high-level informal consultations to pave the way for maximum progress at the next session.

A practice that is becoming more common in the climate change process is to convene informal workshops and consultations on specific issues in between sessions of the Convention bodies. These are held in Bonn or elsewhere (by invitation), and are organized by the secretariat, under the guidance of the subsidiary body Chairmen, with attendance from an invited representative group of Parties. Representatives of observer organizations may also be invited, subject to the availability of physical resources and depending on the mandate. The aim of these inter-sessional meetings is to promote informal discussion and to explore options, without entering into negotiations or taking decisions. Some are technical in nature, and NGO experts may be invited to provide their technical inputs on specific issues.

The road ahead

The climate change process has evolved rapidly since the Convention was adopted in 1992. The most high profile development has undoubtedly been the adoption of the Kyoto Protocol, with its legally-binding emission targets for industrialized countries. However, progress in implementing the Convention, for example through National Communications and In-Depth Reviews, financial assistance, technology transfer and methodological issues, is also of critical importance to forging an effective response to climate change.

The next milestone is COP 6, where major decisions are expected on the operational details of the Kyoto Protocol, as well as on the implementation of the Convention, with the aim of bringing the Protocol into force as early as possible. Many Parties have indicated a wish to see this occur by 2002. But that will not be the end of the story. Like the Convention, the Protocol will be reviewed on a regular basis and talks on targets for the post-2012 period are due to start no later than 2005. The intergovernmental process on climate change will continue to evolve as scientific knowledge improves and political will increases.