

UNITED NATIONS

FRAMEWORK

CONVENTION

ON CLIMATE

CHANGE

HANDBOOK

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United Nations Framework Convention on Climate Change:
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United Nations Framework
Convention on Climate Change
Handbook



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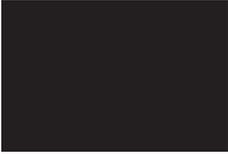
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Acronyms, abbreviations and general expressions

AAU	Assigned amount unit (exchanged through emissions trading)
AF	Adaptation Fund
AFOLU	Agriculture, Forestry and other Land-Use
AG13	Ad Hoc Group on Article 13 (1995–1998)
AGBM	Ad Hoc Group on the Berlin Mandate (1995–1997)
AJ	Activities Implemented Jointly (under the pilot phase)
AIP	Annex I Parties
AOSIS	Alliance of Small Island States
AR4	Fourth Assessment Report (by the IPCC)
Art.	Article
AWG.	Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol
BAPA	Buenos Aires Plan of Action (decided at COP 4 in 1998)
BINGO	Business and industry non-governmental organizations (observer constituency)
C ₂ F ₆	Tetrafluoroethane
CACAM	Central Asia, Caucasus, Albania and Moldova (as a negotiating group)
CBD	Convention on Biological Diversity
CDI	Capacity Development Initiative (of GEF/UNDP)
CDM	Clean Development Mechanism (under the Kyoto Protocol)
CDM EB	CDM Executive Board
CEO	Chief Executive Officer
CER	Certified emission reduction (generated through the CDM)
CF ₄	Carbon Tetrafluoride
CFC	Chlorofluorocarbon
CG-11	Central Group 11 (former negotiating group, replaced by the Central Group)
CGE	Consultative Group of Experts on National Communications from Non-Annex I Parties
CH ₄	Methane
CO	Carbon monoxide
CO ₂	Carbon dioxide
COP	Conference of the Parties (to the UNFCCC)
COP/MOP	Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
COW	Committee of the Whole
CPF	Collaborative Partnership on Forests
CRF	Common reporting format
DAC	Development Assistance Committee (of the OECD)
EA	Enabling Activity (GEF project category)
EC	European Community

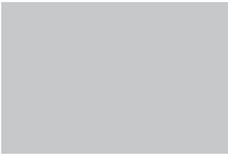


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EGTT	Expert Group on Technology Transfer
EIG	Environmental Integrity Group (negotiating group)
EIT	Economy in transition (countries of the former Soviet Union and Central and Eastern Europe which are undergoing the process of transition to a market economy)
ENGO	Environmental non-governmental organizations (observer constituency)
ERU	Emission reduction unit
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAR	First Assessment Report (by the IPCC)
FNCCC	Framework Convention on Climate Change (= UNFCCC)
FSP	Full-Size Project (GEF project category)
G-77	Group of 77 and China (a coalition of developing countries in the UN context)
GCOS	Global Climate Observing System
GEF	Global Environment Facility
GEO	Ad hoc Group on Earth Observations
GEOSS	Global Earth Observation System of Systems
GET	Global Environment Trust Fund (replaced by the GEF Trust Fund)
GHG	Greenhouse gas
GOOS	Global Ocean Observing System
GRULAC	Group of Latin America and Caribbean States (UN regional group)
GTOS	Global Terrestrial Observing System
GTZ	German Technical Cooperation Agency
GWP	Global warming potential
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
HWP	Harvested wood products
IAEA	International Atomic Energy Agency
ICAO	International Civil Aviation Organization
ICJ	International Court of Justice
ICSU	International Council of Scientific Unions
IEA	International Energy Agency
IGBP	International Geosphere-Biosphere Programme
IGO	Intergovernmental Organization
IHDP	International Human Dimensions Programme on Global Environmental Change
IMO	International Maritime Organization
INC	Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (1990–1995)
IOC	Intergovernmental Oceanographic Commission (of UNESCO)

Acronyms, abbreviations and general expressions

IPCC	Intergovernmental Panel on Climate Change
IPO	Indigenous peoples organizations (observer constituency)
ISSC	International Social Science Council
IUCN	World Conservation Union
JI	Joint Implementation (under the Kyoto Protocol)
JLG	Joint Liaison Group (between the UNFCCC, CBD and UNCCD secretariats)
JUSSCANNZ (or JUSCANZ)	Japan, United States, Switzerland, Canada, Australia, Norway and New Zealand (former negotiating group, has been replaced by the Umbrella Group)
JWG	Joint Working Group (between SBSTA and IPCC)
LDC	Least developed country
LDCF	Least Developed Countries Fund
LEG	Least Developed Countries Expert Group
LGMA	Local government and municipal authorities (observer constituency)
LUCF	Land use change and forestry
LULUCF	Land use, land use change and forestry
MOU	Memorandum of Understanding (between the COP and the GEF)
MSP	Medium-sized project (GEF project category)
mutatis mutandis	"with the necessary changes" (from Latin)
N ₂ O	Nitrous oxide
NAIP	Non-Annex I Parties
NAPA	National Adaptation Programme of Action
NCCSAP	Netherlands Climate Change Studies Assistance Programme
NCSA	National capacity needs self-assessment
NCSP	National Communications Support Programme
NGO	Non-governmental organization
NIR	National inventory report
NMVOC	Non-methane volatile organic compound
NO _x	Nitrogen oxides
ODA	Official development assistance
OECD	Organization for Economic Co-operation and Development
OP	Operational programme (of the GEF)
OPEC	Organization of Petroleum Exporting Countries
PDF	Project Preparation and Development Facility (of the GEF)
PFC	Perfluorocarbon
POP	Persistent organic pollutant
QA	Quality assurance
QC	Quality control
RDB	Regional Development Bank
RINGO	Research oriented and independent non-governmental organizations (observer constituency)
RMU	Removal unit (generated by LULUCF projects)



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SAR	Second Assessment Report (by the IPCC)
SB	Subsidiary Body
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SBSTTA	Subsidiary Body for Scientific, Technical and Technological Advice (of the CBD)
SCCF	Special Climate Change Fund
SDR	Special Drawing Rights
SF ₆	Sulphur hexafluoride
SGP	Small Grants Programme (of the GEF)
SIDS	Small Island Developing States
SO _x	Sulphur oxides
STRM	Short-term response measures (GEF programme category)
TAR	Third Assessment Report (by the IPCC)
TEAP	Technology and Economic Assessment Panel (of the Montreal Protocol)
TT:CLEAR	Technology Transfer Information Clearing House
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNGA	United Nations General Assembly
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UNU	United Nations University
URF	Uniform Reporting Format
USCSP	U.S. Country Studies Program
WCRP	World Climate Research Programme
WEOG	Western European and Others Group (UN regional group)
WHO	World Health Organization
WMO	World Meteorological Organization
WTO	World Trade Organization



List of Parties and Observer States and their ISO three-letter country codes

Numerical code	Country or area name	ISO ALPHA-3 code
004	Afghanistan	AFG
008	Albania	ALB
012	Algeria	DZA
020	Andorra	AND
024	Angola	AGO
028	Antigua and Barbuda	ATG
032	Argentina	ARG
051	Armenia	ARM
036	Australia	AUS
040	Austria	AUT
031	Azerbaijan	AZE
044	Bahamas	BHS
048	Bahrain	BHR
050	Bangladesh	BGD
052	Barbados	BRB
112	Belarus	BLR
056	Belgium	BEL
084	Belize	BLZ
204	Benin	BEN
064	Bhutan	BTN
068	Bolivia	BOL
070	Bosnia and Herzegovina	BIH
072	Botswana	BWA
076	Brazil	BRA
096	Brunei Darussalam	BRN
100	Bulgaria	BGR
854	Burkina Faso	BFA
108	Burundi	BDI
116	Cambodia	KHM
120	Cameroon	CMR
124	Canada	CAN
132	Cape Verde	CPV
140	Central African Republic	CAF
148	Chad	TCD
152	Chile	CHL

Numerical code	Country or area name	ISO ALPHA-3 code
156	China	CHN
170	Colombia	COL
174	Comoros	COM
178	Congo	COG
184	Cook Islands	COK
188	Costa Rica	CRI
384	Côte d'Ivoire	CIV
191	Croatia	HRV
192	Cuba	CUB
196	Cyprus	CYP
203	Czech Republic	CZE
408	Democratic People's Republic of Korea	PRK
180	Democratic Republic of the Congo	COD
208	Denmark	DNK
262	Djibouti	DJI
212	Dominica	DMA
214	Dominican Republic	DOM
218	Ecuador	ECU
818	Egypt	EGY
222	El Salvador	SLV
226	Equatorial Guinea	GNQ
232	Eritrea	ERI
233	Estonia	EST
231	Ethiopia	ETH
242	Fiji	FJI
246	Finland	FIN
250	France	FRA
266	Gabon	GAB
270	Gambia	GMB
268	Georgia	GEO
276	Germany	DEU
288	Ghana	GHA
300	Greece	GRC
308	Grenada	GRD

Numerical code	Country or area name	ISO ALPHA-3 code
320	Guatemala	GTM
324	Guinea	GIN
624	Guinea-Bissau	GNB
328	Guyana	GUY
332	Haiti	HTI
336	Holy See	VAT
340	Honduras	HND
348	Hungary	HUN
352	Iceland	ISL
356	India	IND
360	Indonesia	IDN
364	Iran, Islamic Republic of	IRN
368	Iraq	IRQ
372	Ireland	IRL
376	Israel	ISR
380	Italy	ITA
388	Jamaica	JAM
392	Japan	JPN
400	Jordan	JOR
398	Kazakhstan	KAZ
404	Kenya	KEN
296	Kiribati	KIR
414	Kuwait	KWT
417	Kyrgyzstan	KGZ
418	Lao People's Democratic Republic	LAO
428	Latvia	LVA
422	Lebanon	LBN
426	Lesotho	LSO
430	Liberia	LBR
434	Libyan Arab Jamahiriya	LBY
438	Liechtenstein	LIE
440	Lithuania	LTU
442	Luxembourg	LUX
450	Madagascar	MDG
454	Malawi	MWI
458	Malaysia	MYS
462	Maldives	MDV
466	Mali	MLI

Numerical code	Country or area name	ISO ALPHA-3 code
470	Malta	MLT
584	Marshall Islands	MHL
478	Mauritania	MRT
480	Mauritius	MUS
484	Mexico	MEX
583	Micronesia, Federated States of	FSM
492	Monaco	MCO
496	Mongolia	MNG
499	Montenegro	
504	Morocco	MAR
508	Mozambique	MOZ
104	Myanmar	MMR
516	Namibia	NAM
520	Nauru	NRU
524	Nepal	NPL
528	Netherlands	NLD
554	New Zealand	NZL
558	Nicaragua	NIC
562	Niger	NER
566	Nigeria	NGA
570	Niue	NIU
578	Norway	NOR
512	Oman	OMN
586	Pakistan	PAK
585	Palau	PLW
591	Panama	PAN
598	Papua New Guinea	PNG
600	Paraguay	PRY
604	Peru	PER
608	Philippines	PHL
616	Poland	POL
620	Portugal	PRT
634	Qatar	QAT
410	Republic of Korea	KOR
498	Republic of Moldova	MDA
642	Romania	ROU
643	Russian Federation	RUS
646	Rwanda	RWA

List of Parties and Observer States and their
ISO three-letter country codes

Numerical code	Country or area name	ISO ALPHA-3 code
659	Saint Kitts and Nevis	KNA
662	Saint Lucia	LCA
670	Saint Vincent and the Grenadines	VCT
882	Samoa	WSM
674	San Marino	SMR
678	Sao Tome and Principe	STP
682	Saudi Arabia	SAU
686	Senegal	SEN
688	Serbia	
690	Seychelles	SYC
694	Sierra Leone	SLE
702	Singapore	SGP
703	Slovakia	SVK
705	Slovenia	SVN
090	Solomon Islands	SLB
706	Somalia	SOM
710	South Africa	ZAF
724	Spain	ESP
144	Sri Lanka	LKA
736	Sudan	SDN
740	Suriname	SUR
748	Swaziland	SWZ
752	Sweden	SWE
756	Switzerland	CHE
760	Syrian Arab Republic	SYR
762	Tajikistan	TJK
764	Thailand	THA
807	The former Yugoslav Republic of Macedonia	MKD
626	Timor-Leste	TLS
768	Togo	TGO
776	Tonga	TON
780	Trinidad and Tobago	TTO
788	Tunisia	TUN
792	Turkey	TUR
795	Turkmenistan	TKM
798	Tuvalu	TUV
800	Uganda	UGA

Numerical code	Country or area name	ISO ALPHA-3 code
804	Ukraine	UKR
784	United Arab Emirates	ARE
826	United Kingdom of Great Britain and Northern Ireland	GBR
834	United Republic of Tanzania	TZA
840	United States of America	USA
858	Uruguay	URY
860	Uzbekistan	UZB
548	Vanuatu	VUT
862	Venezuela (Bolivarian Republic of)	VEN
704	Viet Nam	VNM
887	Yemen	YEM
894	Zambia	ZMB
716	Zimbabwe	ZWE

Source: United Nations Statistics Division
<<http://unstats.un.org/unsd/methods/m49/m49.htm>>



Foreword

The United Nations Framework Convention on Climate Change provides the basis for concerted international action to mitigate climate change and to adapt to its impacts. Its provisions are far-sighted, innovative and firmly embedded in the concept of sustainable development. With 189 Parties, the Convention has nearly a universal membership.

This handbook aims to help governments, researchers and others interested in the international climate change negotiations navigate through the complex web of activities undertaken by the Conference of the Parties to the Convention (COP) to advance the implementation of the Convention.

During the past eleven years, there have been twelve sessions of the Conference of the Parties. More than 300 decisions on various issues have been adopted by the COP. These include prominent ones, like the adoption of the Kyoto Protocol; technical ones, like these on guidelines for the national reports and national communications from Parties on their emissions and actions to address climate change; and political decisions on activities concerning technology transfer and capacity-building for developing countries and countries with economies in transition.

The handbook is structured along two parts. Part I focuses on the process side of the international climate change negotiations. It reviews the history of the climate change process, and provides an overview of the institutional arrangements: who does what in the process (the COP, the Bureau, the subsidiary bodies, and the secretariat); who is who in the process (Parties, negotiating groups, intergovernmental and non-governmental organizations, and media); and how to make changes to the Convention – amendments, adoption of protocols and annexes.

Part II provides an overview of the activities related to the implementation of the Convention, including on adaptation to climate impacts, mitigation of climate change, finance, technology transfer, capacity-building, and reporting; as well as the discussions underway to shape future action on climate change.

The handbook also contains information on the Kyoto Protocol, especially where this relates to the Convention provisions. A similar handbook on the Protocol may be published in the future.

To supplement this handbook, the Convention website contains up-to-date information on every aspect of the Convention and the work of the COP.

We wish to thank the Government of Switzerland and the Department of State of the Government of the United States of America for their support in making this handbook a reality.

Yvo de Boer
Executive Secretary
United Nations Framework Convention on Climate Change
October 2006



Scope and purpose of the handbook

This handbook provides an overview of the United Nations Framework Convention on Climate Change (the Convention) as of August 2006. It focuses on the institutional framework of the Convention and the actions taken by the Conference of the Parties to the Convention (COP). It touches on some aspects of the Kyoto Protocol but it is first and foremost a handbook to the Convention.

The handbook has two parts. Part I describes the institutions, Parties, observers and procedures of the Convention; Part II provides information on the thematic work within the Convention such as mitigating climate change, adapting to it, providing financial resources, developing and transferring technology, building capacity and communicating information about implementation. It also describes the dialogue on further long-term actions agreed in Montreal in December 2005.

The handbook aims to serve as a reference for those interested in and working on the issues around climate change. It is designed to provide an easy route to understanding the climate change negotiations under the Convention.

For further information, as well as updated information since the publication of this handbook, please visit the web site of the secretariat: <http://unfccc.int>.



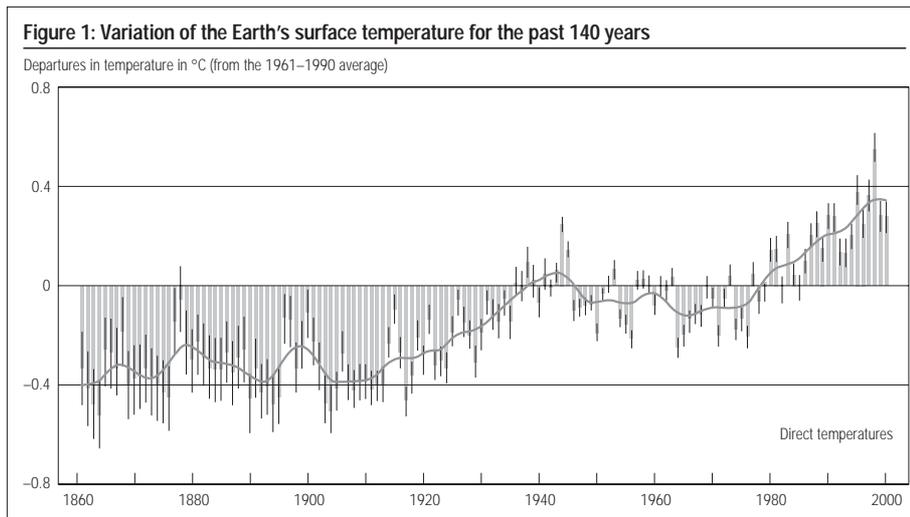
Introduction

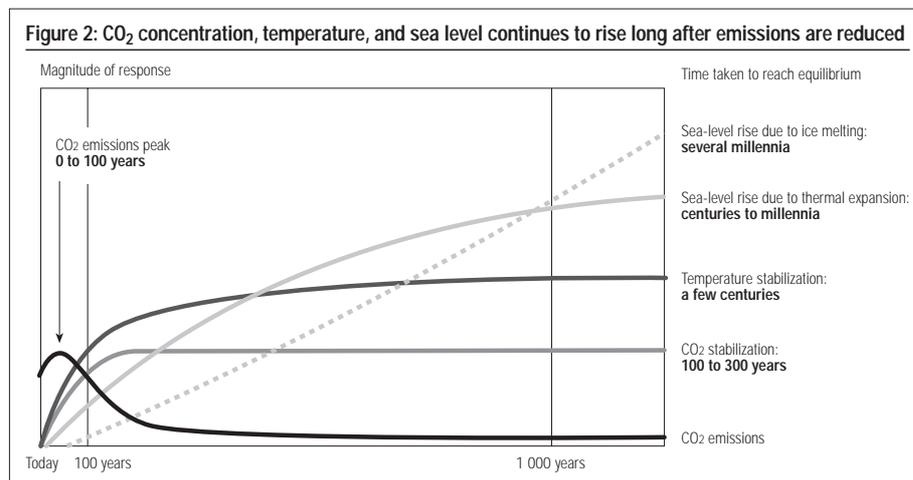
Climate change

The Earth's climate has always changed and evolved. Some of these changes have been due to natural causes but others can be attributed to human activities such as deforestation and to atmospheric emissions, from, for example, industry and transport, which have led to gases and aerosols being stored in the atmosphere. They are known as greenhouse gases (GHGs) because they trap heat and raise air temperatures near the ground, acting like a greenhouse on the surface of the planet.

The Intergovernmental Panel on Climate Change (IPCC; see chapter 4) pointed out in its 2001 Third Assessment Report on the state of the global climate that an increasing body of observations gave a collective picture of a warming world and other changes in the climate system. The report noted that it was very likely that the 1990s had been the warmest decade worldwide, and 1998 the warmest year since instrumental records had begun in 1861, although a few areas had not been warmed in recent decades. The report also stated that new analyses of proxy data for the Northern Hemisphere indicated that the twentieth century was likely to have been the warmest century in the last 1,000 years. It added that new and stronger evidence pointed to the likelihood that most of the warming observed over the past 50 years had arisen from human activities. According to the report, human influence will continue to change atmospheric composition throughout the twenty-first century.

Global warming has begun to affect the sea level, snow cover, ice sheets and rainfall. Shifts in regional patterns of climate marked by rising air temperatures are already affecting watersheds and ecosystems in many parts of the world. The cost to national economies of coping with extreme weather events, crop failures and other emergencies related to climate is growing steadily higher. The





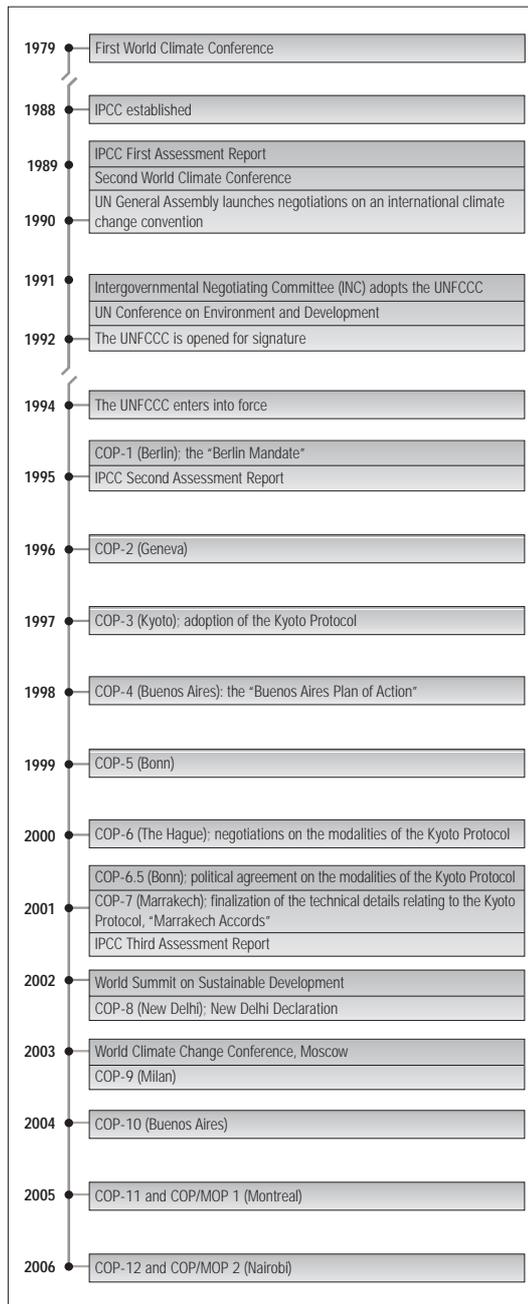
human costs are also multiplying. Low-income economies and poor households in developing countries are especially vulnerable to adverse effects of climate change combined with the “normal” pressures of poverty. Many small island developing states threatened by a rise in sea level are a yet more telling case in point. Their very existence as habitable countries is under threat.

Reducing emissions of GHGs to a point where their concentration in the atmosphere can be stabilized at an agreed level would, according to the IPCC and others, delay and reduce adverse effects of climate change on natural systems and human development. Even so, impacts will persist long after steps to reduce or mitigate GHG emissions take effect. They are also expected to vary from country to country and within countries. Measures designed to help the most vulnerable societies and economies adapt to – or insure against – adverse effects (including, in some cases, economic consequences arising from proposed measures to reduce emissions) are seen as essential adjuncts to the global task of stabilizing levels of GHGs in the atmosphere.

History and development of the Convention

1979. The First World Climate Conference identified climate change as an urgent world problem and issued a declaration calling on governments to anticipate and guard against potential climate hazards. A World Climate Programme was set up, steered by the World Meteorological Organization (WMO), the United Nations Environment Programme (UNEP) and the International Council of Scientific Unions (ICSU). Several intergovernmental conferences on climate change followed.

1988. The Toronto Conference on the Changing Atmosphere advanced public debate, when more than 340 participants from 46 countries all recommended developing a comprehensive global framework convention to protect the atmosphere.



Following a proposal by Malta, the United Nations General Assembly addressed climate change for the first time by adopting Resolution 43/53. This recognized that “climate change is a common concern of mankind, since climate is an essential condition which sustains life on earth”, and determined that “necessary and timely action should be taken to deal with climate change within a global framework ...”¹.

The WMO and UNEP established the Intergovernmental Panel on Climate Change (IPCC), to assess the magnitude and timing of changes, estimate their impacts and present strategies for how to respond.

1990. The IPCC published the First Assessment Report on the state of the global climate, which had a potent effect on policy makers and on public opinion. It became the main basis for negotiations under the United Nations General Assembly on a climate change convention, beginning in late 1990.

The Second World Climate Conference met in Geneva in November, and, unlike the 1979 Climate Conference, included ministers as well as scientists.

On 21 December the United Nations General Assembly established, by Resolution 45/212, the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC) as “a single intergovernmental negotiating process under the auspices of the General Assembly.”² The INC met for five sessions between February 1991 and May 1992.

¹ A/RES/45/53.
² A/RES/45/212.



1992. The INC finalized the Convention text in just 15 months, in time for its adoption in New York on 9 May and its full launch in June at the Rio de Janeiro Earth Summit, where 154 states signed it.

1994. The Convention entered into force on 21 March, 90 days after the fiftieth state's instrument of ratification had been deposited.

1995. The INC completed its work of preparing for the implementation of the Convention. The Conference of the Parties to the Convention (COP) became the Convention's ultimate authority, holding its first session (COP 1) in Berlin early in the year. The Parties to the Convention agreed that commitments contained in the Convention for industrialized countries were inadequate and launched the "Berlin Mandate" talks on additional commitments. As a result, COP 1 established the Ad Hoc Group on the Berlin Mandate to conduct the negotiations. COP 1 also decided that the Subsidiary Body for Implementation (SBI, established by Article 10 of the Convention) and the Subsidiary Body for Scientific and Technological Advice (SBSTA, established by Article 9 of the Convention) should meet.

1996. The IPCC finalized its Second Assessment Report in time for COP 2 in Geneva in June. It concluded that on the balance of available evidence there was indeed a discernible human influence on global climate that posed hazards to human and economic development. It recommended cost-effective steps, consistent with sustainable development and designed to provide "no regrets" safeguards against such risks. Steps should also be compatible with food security, social justice and the wealth of nations.

1997. Taking its cue from these conclusions, COP 3 adopted the Kyoto Protocol in December. The Kyoto Protocol sets individual, legally binding targets for industrialized countries prepared to take positive steps to curb emissions of carbon dioxide and other GHGs from sources within their remit. Time constraints prevented COP 3 from working out the details of how the Kyoto Protocol should operate in practice.

1998. At COP 4, held in Buenos Aires in November, a two-year plan for completing a set of practical rules was agreed, the so-called Buenos Aires Plan of Action (BAPA).

1999. The agenda of COP 5, which took place in Bonn, was based on this plan.

2000. Since not all the issues relating to the operational rules for the Protocol could be resolved at COP 6 in November in The Hague, the meeting was suspended.

2001. COP 6 resumed in Bonn in late July and reached an outline agreement – the so-called Bonn Agreements – on an emissions trading system, on a Clean Development Mechanism (CDM), on rules for accounting for emissions reductions from carbon "sinks" and on a compliance regime. It also outlined a package of financial and technological support to help developing countries contribute to global action on climate change and address its adverse effects.



Detailed legal texts based on these decisions were on the negotiating table at COP 7, held in Marrakesh in late 2001. COP 7 adopted the respective decisions, the so-called Marrakesh Accords.

2002. COP 8, held in New Delhi in November, was the first session after the negotiations under the BAPA had been completed. It marked a new phase of negotiations as the focus shifted to implementation of the Marrakesh Accords and to Convention issues. COP 8 adopted the Delhi Ministerial Declaration on Climate Change and Sustainable Development as well as the New Delhi work programme on education, training and public awareness (Article 6).

2003. COP 9, held in Milan in December, adopted decisions on afforestation and reforestation activities under the CDM.

2004. At COP 10, held in Buenos Aires in December, the predominant issue was adapting to climate change and one of the outcomes was the Buenos Aires programme of work on adaptation and response measures.

2005. The Kyoto Protocol came into force on 16 February. The first Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP 1), was held with COP 11 in Montreal in November and December. It was one of the most successful to date, with an important political break-through being the decision by Parties to start a dialogue on strategic long-term cooperative action.

As of September 2006, of a total United Nations membership of 191 nations, 189 countries and the European Community have joined the Convention (and 164 countries and the European Community have joined the Kyoto Protocol). It is therefore clear that the Convention is one of the most universally supported international agreements in existence.

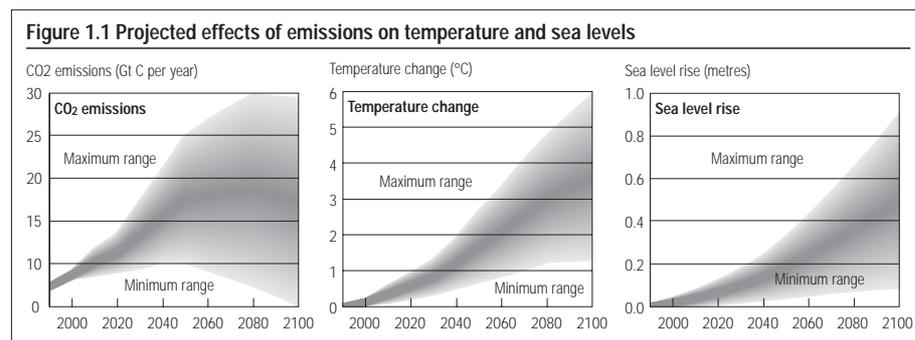
Objective and principles of the Convention

This chapter addresses the objective (Article 2) and principles (Article 3) of the Convention. It should be noted that the titles of Convention articles, such as “Objective”, “Principles” and “Commitments”, do not form part of the negotiated text of the Convention. They have been included solely to assist the reader.

1.A. Objective

According to Article 2, the Convention’s ultimate objective is “to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic [originating in human activity] interference with the climate system”. This objective is qualified in that it “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”.

In stating this objective, the Convention reflects concerns that the earth’s climate system is threatened by a rise in atmospheric greenhouse gas (GHG) concentrations, which is caused by increased anthropogenic GHG emissions. The Convention does not state a limit for total anthropogenic GHG emissions which would have to be respected to reach the objective. Nor does it indicate the level of total GHG concentrations beyond which “dangerous anthropogenic interference with the climate system” would occur. Estimates of where these levels lie evolve continually with scientific advances and are complicated by the political need to take into account the changing ability of societies to adapt to climate change. Another important factor is that stabilizing atmospheric concentrations of GHGs near current levels would actually require a steep reduction of current emissions. This is because, once emitted, GHGs remain in the atmosphere for a considerable length of time: carbon dioxide, for instance, stays in the climate system, on average, for a century or more.³



³ See IPCC Second Assessment Synthesis of Scientific-Technical Information Relevant to Interpreting Article 2 of the UN Framework Convention on Climate Change. IPCC Second Assessment Climate Change 1995, pp. 1-18.



Estimates of what GHG concentrations would lead to what overall rise in temperature, and what effects this would have on nature and human life are provided in reports from the Intergovernmental Panel on Climate Change (IPCC). Its reports also detail how policies and measures can influence these developments. The IPCC was set up in 1988 to provide an authoritative source of up-to-date interdisciplinary knowledge on climate change. It defines its conclusions as “policy-relevant, but not policy-prescriptive”⁴ (see chapter 4). Ultimately, the question of what levels of GHG concentrations are acceptable cannot be resolved by science alone. It has also to be the subject of political decisions. Natural science, however, presents evidence on the existence, underlying mechanisms and extent of human influence on the climate system that has significantly increased since the adoption of the Convention. The IPCC’s Third Assessment Report (TAR), published in 2001, confirmed the results of its previous Assessment Reports (1990 and 1995). According to the TAR, it is very likely that human-induced climate change has already begun to negatively affect ecosystems, human life and the economy. The TAR also provides a range of scenarios estimating the reductions in GHG emissions that would be necessary to achieve stabilization of atmospheric GHG concentrations at certain levels. The debate on what the objective defined in Article 2 implies in concrete terms continues within the IPCC⁵ and this question will be addressed as a cross-cutting issue in the IPCC’s Fourth Assessment Report, scheduled for 2007.

The Convention does not provide a list of the GHGs that are to be regulated. It only refers to carbon dioxide – of which there is the greatest quantity of all GHGs – and “other greenhouse gases not controlled by the Montreal Protocol”. The Montreal Protocol (see section 4.C) regulates those GHGs that also contribute to the depletion of the ozone layer, for example, chlorofluorocarbons (CFCs).

As shown in Box 1.1, there are four gases and two groups of gases of most concern: carbon dioxide (CO₂), estimated to account for 50 per cent of the overall warming effect arising from human activities; methane (CH₄), 18 per cent; nitrous oxide (N₂O), 6 per cent; sulphur hexafluoride (SF₆), used in some industrial processes and in electric equipment; hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), used as replacements for ozone-depleting substances currently being phased out under the Montreal Protocol.

The requirements for inventories and reporting under the Convention cover further gases, including precursors of GHGs (chapter 18).

Although the Convention does not indicate targets for an overall limitation, or reduction, of GHG emissions, it provides a first quantified goal in Article 4.2(a) and (b), calling on Parties included in Annex I to the Convention (Annex I

⁴ *Climate Change 2001: Synthesis Report*, IPCC.

⁵ See, for instance, the report on the IPCC Expert Meeting on “The Science to Address UNFCCC Article 2 including Key Vulnerabilities”, Buenos Aires, Argentina, May 2004. <<http://www.ipcc.ch/wg2srpdf/>>.

Box 1.1: GHGs under the Kyoto Protocol

The Kyoto Protocol, in its Annex A, addresses a basket of four important gases and two groups of gases. Parties included in Annex I to the Convention are expected to limit or reduce emissions of them during the first commitment period from 2008 to 2012. They are:

Gases	Groups of gases
Carbon dioxide (CO ₂)	Hydrofluorocarbons (HFCs)
Methane (CH ₄)	Perfluorocarbons (PFCs)
Nitrous oxide (N ₂ O)	
Sulphur hexafluoride (SF ₆)	

Emissions of these gases are to be limited or reduced in six key sectors: energy; industrial processes; solvents and other products; agriculture; land-use change and forestry; and waste.

Parties)⁶ (see chapter 3) to return their GHG emissions, individually or jointly, to 1990 levels. However, the provisions in Article 4.2(a) and (b) were judged to be inadequate by the Conference of the Parties to the Convention (COP) at the first session in 1995. This paved the way for negotiating more stringent targets. The Kyoto Protocol of 1997 contains further quantifications of limits for GHG emissions, which are also restricted to Annex I Parties and cover a relatively narrow time horizon (up to 2012). A global, long-term goal for stabilizing GHG concentrations in the atmosphere, along with the reductions in emissions necessary to achieve this stabilization, has not yet been agreed upon.

1.B. Principles

The principles of the Convention are stipulated in Article 3, which also states that these principles *inter alia* shall guide the actions of Parties, and thus do not constitute an exhaustive list.

Article 3.1 stresses the principles of equity and of common but differentiated responsibilities. The latter principle was also formulated in 1992 as Principle 7 of the Rio Declaration.

Box 1.2: Principle 7 of the 1992 Rio Declaration on Environment and Development

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

⁶ These are 41 industrialized countries which are Parties to the Convention and included in its Annex I. The Annex I Parties are listed in the appendices of this handbook.

Box 1.3: Principle 6 of the 1992 Rio Declaration on Environment and Development

This calls for priority to the special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable.

In the context of the Convention, this principle has several applications. Past and present GHG emissions are distributed unevenly among Parties and Parties have different capacities and resources to address the causes and effects of climate change. Article 3.1 thus calls on industrialized countries to “take the lead in combating climate change and the adverse effects thereof”. This is reflected in the Convention by differentiating between Annex I Parties and those Parties not listed in Annex I to the Convention (non-Annex I Parties). Within these two basic groups, further differentiations are made to take account of the different capacities, specific situations and vulnerabilities of Parties.

While all Parties have commitments under the Convention, most of which are laid down in Article 4.1, Annex I Parties are subject to specific requirements to demonstrate that they are taking the lead in combating climate change. Article 4.2 requires them to adopt policies and measures to mitigate climate change by limiting their GHG emissions and enhancing their GHG sinks and reservoirs. A sink is a process, activity or mechanism that removes a GHG from the atmosphere; a reservoir is part of the climate system that enables a GHG to be stored. Article 12 regulates the way Parties communicate information on implementation (see chapter 18). The Convention requires Annex I Parties to reduce their GHG emissions to 1990 levels by end of the 1990s but it also provides for a review of the adequacy of these commitments. The first review ultimately led to the adoption of the Kyoto Protocol, which sets more stringent, legally binding targets for Annex I Parties with a time horizon well beyond 2000.

Further differentiation occurs within Annex I. On one hand, Parties listed in Annex II to the Convention (Annex II Parties) are required to provide financial assistance and facilitate the transfer of technologies to developing countries to help them implement their commitments under the Convention. On the other hand, the group of countries with economies in transition (EITs) are granted a certain degree of flexibility in implementing their commitments, on account of recent economic and political upheavals in those countries.

Box 1.4: Principle 15 of the 1992 Rio Declaration on Environment and Development

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Box 1.5: Principle 3 of the 1992 Rio Declaration on Environment and Development

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

There is also differentiation within the non-Annex I Parties. The 48 Parties classified as least developed countries (LDCs) by the United Nations are given special consideration under the Convention because of their limited capacity to respond to climate change and adapt to its adverse effects. Parties are urged to take full account of the special situation of LDCs when considering funding and technology transfer. In addition, reporting requirements for LDCs are less strict than for other non-Annex I Parties insofar as they may make their initial national communication at their discretion.

Furthermore, certain groups of developing countries are recognized by the Convention as being especially vulnerable to the adverse effects of climate change. These include countries with low-lying coastal areas and those prone to desertification and drought. Others, such as countries that rely heavily on income from fossil fuels, are more vulnerable to the potential economic impacts of measures taken to respond to climate change. The Convention (in Article 4.8 and 9) emphasizes activities that might answer the special needs and concerns of these vulnerable countries, such as investment, insurance and technology transfer.

The differentiation of responsibilities under the Convention is also expressed by Article 4.7. This states that the extent to which developing country Parties will effectively implement their commitments “will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties”.

Article 3.2 addresses the different degrees to which Parties will be affected by climate change and by measures to implement the Convention. It calls for “full consideration of specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention”. This is in line with Principle 6 of the Rio Declaration.

In the Convention, this provision is further detailed in Article 4.8 (specific needs and concerns of developing country Parties), Article 4.9 (specific needs and special situations of LDCs) and Article 4.10 (situation of Parties with economies vulnerable to the adverse effects of response measures).

Article 3.3 refers to the precautionary principle, which is widely reflected in environmental law and environmental agreements: “Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be



Box 1.6: Principle 12 of the 1992 Rio Declaration on Environment and Development

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

used as a reason for postponing such measures” – a statement which closely mirrors the wording of Principle 15 of the Rio Declaration.

In line with this, Article 3.3 further stresses the need for cost-effectiveness. Accordingly, the measures undertaken to implement the Convention should avoid unnecessary burdens for the economy. One way of minimizing costs might be to implement measures jointly (see Article 4.2(a) and chapter 11).

Article 3.4 lays down the right, and obligation, to promote sustainable development. This is in line with Principle 3 of the Rio Declaration.

Article 3.4 specifies that policies and measures to protect the climate system “should be appropriate for the specific conditions of each Party and should be integrated with national development programmes, taking into account that economic development is essential for adopting measures to address climate change”.

Article 3.5 upholds the principle of free trade, calling on the Parties to promote a “supportive and open international economic system that would lead to sustainable economic growth and sustainable development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change”. Article 3.5 also calls on Parties to avoid measures that “constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade”. This Article is closely related to Principle 12 of the Rio Declaration.

Institutional arrangements – who does what

Several institutions and bodies work within the framework of the Convention. These include those established by the Convention – the Conference of the Parties to the Convention (COP), the subsidiary bodies (SBs), the Bureau and the secretariat. They also include other bodies established by the COP, in accordance with Article 7.2(i) of the Convention: committees, working groups and expert bodies.

In this chapter the structure, powers and respective field of work of these institutions and bodies are discussed. These have been shaped by Articles 7-10 of the Convention, by the draft rules of procedure of the COP, by the practices and needs of the COP and by a number of COP decisions.

2.A. The Conference of the Parties (COP)

The climate change process revolves around the annual sessions of the COP, which bring together all countries that are Parties to the Convention. Article 7.2 defines the COP as the “supreme body” of the Convention, as it is its highest decision-making authority.

2.A.1. Responsibilities

According to Article 7.2, the COP is responsible for reviewing the implementation of the Convention and any related legal instruments, and has to make the decisions necessary to promote the effective implementation of the Convention. In particular, its role is to:

1. **examine the Parties’ commitments** in light of the Convention’s objective, new scientific findings and experience gained in implementing climate change policies;
2. **promote and facilitate the exchange of information** on measures adopted by Parties to address climate change and its effects;
3. **facilitate the coordination of measures** adopted by Parties to address climate change and its effects, if requested to do so by two or more Parties;
4. **promote and guide the development and refinement of comparable methodologies** for activities related to implementing the Convention, such as preparing inventories of GHG emissions and removals and evaluating the effectiveness of measures to limit emissions and enhance removals;
5. **assess the implementation of the Convention** by Parties, the effects of the measures taken by them and the progress made towards achieving the ultimate objective of the Convention;
6. **consider and adopt reports** on the implementation of the Convention, and ensure their publication;
7. **make recommendations** on any matters necessary for the implementation of the Convention;
8. seek to **mobilize financial resources**;
9. **review reports submitted by its SBs** and provide guidance to them; and
10. exercise such other functions as are required to achieve the objective of the Convention as well as all other functions assigned to the COP under the Convention.

Between COP 1 in 1995 and COP 11 in 2005, 221 decisions were adopted in accordance with Article 7.2. As well as 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, gave new momentum to the Kyoto Protocol negotiations. At COP 4 and COP 6, Parties adopted resolutions of solidarity with, respectively, Central America and Southern African countries, especially Mozambique, following devastating extreme weather in those regions. More often, resolutions contain expressions of gratitude to countries that host COP sessions.

In accordance with Article 7.4 and Rule 4 of the draft rules of procedure, the COP meets annually unless the Parties decide otherwise. Extraordinary COP sessions may be held if the COP deems it necessary, or, if a Party submits a written request that is supported by at least one third of the Parties, within six months (Article 7.5). An extraordinary session is held no later than 90 days after the request has received the required support (draft rules of procedure, Rule 4). No extraordinary session has yet been held (in the case of COP 6, Part II was a resumed session, held 13–27 July 2001, in Bonn).

The sessions of the COP usually last two weeks, and are often held in parallel with sessions of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) (see section 2.C). In general, a few thousand participants attend these sessions, including government delegates and observers (see Table 2.1). COP 3 had the highest attendance record to date with almost 10,000 participants, including around 1,500 Party delegates, 4,000 observer organizations, and 3,500 media representatives.

In accordance with Rule 4 of the draft rules of procedure, the dates of a COP session are usually scheduled at the previous session. The COP venue is the seat of the secretariat in Bonn unless a Party offers to host the session, which

Box 2.1: The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP)

In accordance with Article 13 of the Kyoto Protocol, the COP/MOP, will meet in conjunction with the COP. The first session of the COP/MOP was held in Montreal at the same time as COP 11, in 2005.

Parties to the Convention that are not Parties to the Protocol participate in the COP/MOP as observers, without the right to take part in decision-making (Kyoto Protocol Article 13.2). The functions of the COP/MOP for the Protocol are similar to those carried out by the COP for the Convention.

At COP/MOP 1, one of the main outcomes was decision 1/CMP.1 "Consideration of commitments for subsequent periods for Annex I Parties to the Convention under Article 3.9 of the Kyoto Protocol", whereby Parties decided to initiate a process to consider further commitments by Annex I Parties for the period beyond 2012. It established an open-ended ad hoc working group of Parties to the Kyoto Protocol to conduct that process and report on it to each session of the COP/MOP. conduct that process and report on it to each session of the COP/MOP.

has usually been the case. Traditionally, the venue rotates among the five United Nations regional groups (Africa; Asia; Central and Eastern Europe; Latin America and the Caribbean states; Western Europe and Others: see chapter 3). No later than two months before the session, the secretariat notifies the Parties of its dates and venue (draft rules of procedure, Rule 5). In practice, the participants are informed early in the year so that they can start planning.

2.A.2. Agenda

For each COP session, the secretariat drafts a provisional agenda in agreement with the President (draft rules of procedure, Rule 9). According to Rule 10 of the draft rules of procedure, the provisional agenda includes the following, as appropriate:

- items arising from the Convention, including COP functions specified in Article 7 of the Convention;
- items that a previous session has decided to include on the provisional agenda;
- any item on the agenda of a previous session which was not completed at that session;
- items proposed by a Party and received by the secretariat before the provisional agenda is circulated; and
- the proposed budget and administrative implications of matters arising from the substantive agenda.

In accordance with Rule 11 of the draft rules of procedure, the secretariat makes the provisional agenda available to Parties in all six United Nations languages (Arabic, Chinese, English, French, Russian and Spanish) at least six weeks before the session. If Parties propose additional items for the provisional agenda after it has been produced (but before the session has been opened), the secretariat – in agreement with the President – includes such items in a supplementary provisional agenda (draft rules of procedure, Rule 12). Parties may also request changes to the provisional agenda on the first day of the session. During the adoption of the agenda, Parties may decide to add, delete, defer or amend items. Only items which the COP considers “urgent and important” may be added (draft rules of procedure, Rule 13). The provisional agenda of an extraordinary session consists of the items included in the request to hold such a session (draft rules of procedure, Rule 14).

2.A.3. Plenary sessions

The plenary sessions of the COP are at the core of the climate change negotiations. They are held in public, unless the COP decides otherwise, which has not yet happened. The official United Nations languages (Arabic, Chinese, English, French, Russian and Spanish) are also the official languages of the COP. Parties making statements in a non-official language must provide for their interpretation into an official language. Plenary sessions are normally broadcast live on the internet, and recordings are stored by the secretariat in a web archive. Audio recordings of the proceedings are made and kept by the secretariat.

Table 2.1: Overview of COP sessions held to date

COP	Date	Venue	President (all of ministerial rank)	Size*	Major outcomes (selection)
COP 1	28 March– 7 April 1995	Berlin	Angela Merkel (Germany)	1925	Berlin Mandate (decision 1/CP.1)
COP 2	8–19 July 1996	Geneva	Chen Chimutengwende (Zimbabwe)	1788	Geneva Ministerial Declaration [not adopted]
COP 3	1–11 Dec. 1997	Kyoto	Hiroshi Ohki (Japan)	6138	Kyoto Protocol (decision 1/CP.3)
COP 4	2–14 Nov. 1998	Buenos Aires	Maria Julia Alsogaray (Argentina)	4740	Buenos Aires Plan of Action (decisions 1/CP.4 – 8/CP.4)
COP 5	25 Oct.–5 Nov. 1999	Bonn	Jan Szyszko (Poland)	4188	
COP 6	13–24 Nov. 2000	The Hague	Jan Pronk (The Netherlands)	6050	
COP 6 Part II	13–27 July 2001	Bonn	Jan Pronk (The Netherlands)	3542	Bonn Agreements (decision 5/CP.6)
COP 7	29 Oct.–9 Nov. 2001	Marrakesh	Mohamed Elyazghi (Morocco)	4001	Marrakesh Ministerial Declaration Marrakesh Accords (decisions 1/CP.7 – 24/CP.7)
COP 8	23 Oct.– 1 Nov. 2002	New Delhi	T. R. Baalu (India)	3557	Delhi Ministerial Declaration (decision 1/CP.8) New Delhi Work Programme on Article 6 (decision 11/CP.8)
COP 9	1–12 Dec. 2003	Milan	Miklós Persányi (Hungary)	4645	
COP 10	6–17 Dec. 2004	Buenos Aires	Ginés González García (Argentina)	5366	Buenos Aires Programme of Work on Adaptation and Response Measures (decision 1/CP.10)
COP 11 held with COP/ MOP 1	28 Nov– 9 Dec. 2005	Montreal	Stéphane Dion (Canada)	8657	Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention (decision 1/CP.11)

* numbers of participants, excluding media representatives

A segment for ministerial participation may also be organized and often takes place during the last few days. Ministers typically make brief national policy statements to the COP plenary. Sometimes a round-table discussion may be organized to promote an informal exchange of views among ministers and other heads of delegations on specific subjects.

The COP works in various ways during the session. It may request the SBs to undertake work on specific items on the agenda and report back to the COP. It may also establish informal groups to conduct negotiations on various items.

2.B. COP President and Bureau

2.B.1. President

The office of the COP President normally rotates among the five United Nations regional groups. The President is usually the environment minister of his or her home country. S/he is elected by acclamation immediately after the opening of a COP session.

Their role is to facilitate the work of the COP and promote agreements among Parties. Accordingly, the rules of procedure stipulate that the President remains under the authority of the COP and that he or she must remain impartial and not exercise the rights of the representative of a Party.

2.B.2. Bureau

The work of the COP and each subsidiary body is guided by an elected Bureau. To ensure continuity, it serves not only during sessions, but between sessions as well.

The COP Bureau consists of 11 officers: the COP President, seven Vice-Presidents, the Chairs of the two subsidiary bodies and a Rapporteur. The Vice-Presidents routinely preside during the high-level segment while the President is engaged in negotiations with Parties on controversial issues, frequently at ministerial level. The Rapporteur is responsible for preparing the report of the session.

The five United Nations regional groups each nominate two members, and one place is reserved for a representative of Small Island Developing States (SIDS). The Bureau is elected by the COP from among Parties' representatives for one year. Its members may be re-elected for a second one-year term, and exceptions have been agreed in the past to allow Bureau members to serve for three years. If an officer resigns or is otherwise unable to perform the assigned task, the Party or region concerned may name a representative as a replacement.

Neither the Convention nor the draft rules of procedure define the functions of the Bureau. Instead, practice has shaped its role and operational procedures. It deals mainly with procedural and organizational issues arising from the COP, and advises the President. In addition, the Bureau has other technical functions, such as examining the credentials of Party representatives and reviewing – in cooperation with the secretariat – requests for accreditation by non-governmental organizations (NGOs) and intergovernmental organizations (IGOs) (see chapter 5).

2.C. Subsidiary Bodies (SBs)

The Convention establishes two permanent subsidiary bodies (SBs), namely the Subsidiary Body for Scientific and Technological Advice (SBSTA), by Article 9, and the Subsidiary Body for Implementation (SBI), by Article 10. These bodies advise the COP. In accordance with Articles 9.1 and 10.1, they are both multidisciplinary bodies open to participation by any Party, and governments send representatives with relevant expertise.

Table 2.2: Sessions and Chairs of the SBSTA

Session	Date and venue	Chair
SBSTA 1	Geneva, 28 August–1 September 1995	Tibor Faragó (Hungary) elected at COP 1
SBSTA 2	Geneva, 27 February–4 March 1996	
SBSTA 3	Geneva, 9–16 July 1996	
SBSTA 4	Geneva, 16–18 December 1996	
SBSTA 5	Bonn, 25–28 February 1997	
SBSTA 6	Bonn, 28 July–5 August 1997	
SBSTA 7	Bonn, 20–28 October 1997	
SBSTA 8	Bonn, 2–12 June 1998	Chow Kok Kee (Malaysia)
SBSTA 9	Buenos Aires, 3–10 November 1998	elected at COP 3
SBSTA 10	Bonn, 31 May–11 June 1999	
SBSTA 11	Bonn, 25 October–5 November 1999	Harald Dovland (Norway) elected at COP 5
SBSTA 12	Bonn, 12–16 June 2000	
SBSTA 13 part I	Lyon, 11–15 September 2000	
SBSTA 13 part II	The Hague, 13–18 November 2000	
SBSTA 14	Bonn, 24–27 July 2001	
SBSTA 15	Marrakesh, 29 October–6 November 2001	
SBSTA 16	Bonn, 5–14 June 2002	Halldor Thorgeirsson (Iceland)
SBSTA 17	New Delhi, 23–29 October 2002	elected at COP 7
SBSTA 18	Bonn, 4–13 June 2003	
SBSTA 19	Milan, 1–9 December 2003	
SBSTA 20	Bonn, 16–25 June 2004	Abdullatif S. Benrageb (Libya)
SBSTA 21	Buenos Aires, 6–14 December 2004	elected at COP 9
SBSTA 22	Bonn, 19–27 May 2005	
SBSTA 23	Montreal, 28 November–9 December 2005	
SBSTA 24	Bonn, 18–26 May 2006	Kishan Kumarsingh (Trinidad and Tobago)
SBSTA 25	Nairobi, 6–17 November 2006	elected at COP 11.

The SBSTA and the SBI, whose respective fields of work are discussed in the following sub-sections, are the main working bodies of the Convention. They meet twice a year for one to two weeks; the first time normally in mid-year and the second in conjunction with the COP (see Tables 2.2 and 2.3). Given the more technical nature of their work, they tend to involve technical specialists rather than high-level political negotiators, and to attract somewhat fewer participants (around 1,500) than the COP. The ways of organizing the work of the SBs are similar to those described above for the COP.

The sessions of the SBs are important events in the climate change process but only the COP makes decisions. The main products of the SBSTA and SBI are therefore recommendations for draft decisions, which are then forwarded to the COP for consideration and adoption. In addition, the SBs can adopt conclusions, which are included in their meeting reports.

Like the COP, the SBSTA and SBI each have a Bureau. They consist of a Chair, a Vice-Chair and a Rapporteur, who all perform similar functions to their counterparts on the COP Bureau and usually serve for two years. The Chair, the Vice-Chair and the Rapporteur are elected according to the principle of equitable geographic representation.

2.C.1. Division of labour between the SBSTA and SBI

The Convention lays down the general distribution of tasks to the SBs (Article 9 for the SBSTA and Article 10 for the SBI) and the COP has further defined their areas and division of work, notably in decisions 6/CP.1 and 13/CP.3 (see below). The division of labour has also further evolved during the Convention process.

In general terms, the SBSTA functions as the “link between the scientific, technical and technological assessments of information provided by competent international bodies, and the policy-oriented needs” of the COP, while the SBI develops recommendations to assist the COP “in its review and assessment of the implementation of the Convention and in the preparation and implementation of its decisions” (decision 6/CP.1).

While there are some areas of work which clearly lie within the responsibility of one SB (such as “methodological issues” for the SBSTA, or “administrative and financial matters” for the SBI), the SBSTA and SBI cooperate on a number of cross-cutting issues that touch on both their areas of expertise. In the interests of efficiency, it is generally preferable for only one to take the overall responsibility for a given issue. Where no overall responsibility for an issue is assigned to either, agendas are organized to avoid having both SBs dealing with the same issue in parallel sessions (decision 13/CP.3).

2.C.2 Subsidiary Body for Scientific and Technological Advice (SBSTA)

The SBSTA's task is to provide the COP and, as appropriate, its other subsidiary bodies “with timely advice on scientific and technological matters relating to the Convention” (Article 9.1). More specifically, the Convention and decision 6/CP.1 assign the following tasks to the SBSTA:

- to provide assessments of the state of scientific knowledge of climate change and its effects (Article 9.2(a)) to the COP by reviewing the latest relevant information provided by competent bodies such as the IPCC (see chapter 4), and evaluating its implications to the extent possible;
- to prepare scientific assessments of the effects of measures taken in implementing the Convention (Article 9.2(b)) by compiling in-depth reports on national communications (see chapter 18), and making recommendations on technical aspects of the review process;
- to identify innovative, efficient and state-of-the-art technologies and know-how and advise on how to promote their development and/or

Table 2.3: Sessions and Chair of the SBI

Session	Date and venue	Chair
SBI 1	Geneva, 31 August 1995	Mahmoud Ould El Ghaouth (Mauritania)
SBI 2	Geneva, 27 February–8 March 1996	elected at COP 1
SBI 3	Geneva, 9–16 July 1996	
SBI 4	Geneva, 10–11 December 1996	
SBI 5	Bonn, 25 February–7 March 1997	
SBI 6	Bonn, 28 July–5 August 1997	
SBI 7	Bonn, 20–29 October 1997	
SBI 8	Bonn, 2–12 June 1998	Bakary Kanté (Senegal)
SBI 9	Buenos Aires, 3–10 November 1998	elected at COP 3
SBI 10	Bonn, 31 May–11 June 1999	
SBI 11	Bonn, 25 October–5 November 1999	John Ashe (Antigua and Barbuda)
SBI 12	Bonn, 12–16 June 2000	elected at COP 5
SBI 13 Part I	Lyon, 11–15 September 2000	
SBI 13 Part II	The Hague, 13–18 November 2000	
SBI 14	Bonn, 24–27 July 2001	
SBI 15	Marrakesh, 29 October–8 November 2001	
SBI 16	Bonn, 10–14 June 2002	Raúl Estrada-Oyuela (Argentina)
SBI 17	New Delhi, 23 October–1 November 2002	elected at COP 7
SBI 18	Bonn, 4–13 June 2003	Daniela Stoycheva (Bulgaria)
SBI 19	Milan, 1–10 December 2003	elected at COP 8
SBI 20	Bonn, 16–25 June 2004	
SBI 21	Buenos Aires, 6–14 December 2004	
SBI 22	Bonn, 20–27 May 2005	Thomas Becker (Denmark)
SBI 23	Montreal, 28 November–9 December 2005	elected at COP 10
SBI 24	Bonn, 18–26 May 2006	
SBI 25	Nairobi, 6–17 November 2006	

transfer (Article 9.2(c)) by ensuring that information on them is collected and disseminated and by providing advice on them and evaluating ongoing efforts in their development and/or transfer according to need under the Convention;

- to advise on **scientific programmes, international cooperation in research and development** and on supporting **capacity-building in developing countries** (Article 9.2(d)), and to assist the Parties in implementing Article 5⁷ and Article 6⁸ of the Convention, by ensuring that information on related international initiatives is collected and disseminated. In addition, to advise on education programmes, human resources and training and on the promotion of such initiatives, and to evaluate ongoing efforts in this field according to need under the Convention;
- to **respond to scientific, technological and methodological questions** that the COP and the SBI may put to it (Article 9.2(e)).

In the context of this last task, the SBSTA works on developing, improving and refining comparable methodologies for national inventories and projections of emissions and removals of GHGs (see chapter 18) and for evaluating the effects of measures undertaken to implement the Convention. It also carries out methodological work in specific areas, such as the land use, land use change and forestry (LULUCF) sector (see chapter 11 and Box 18.8 in chapter 18), the relationship with efforts to protect the ozone layer (see chapter 4), the allocation and control of emissions from bunker fuels i.e. fuels used by aircraft or ships for international transport (see Box 18.6 in chapter 18), and assessments of adaptation and vulnerability (see chapter 12).

2.C.3. Subsidiary Body for Implementation (SBI)

The SBI's task is to assist the COP "in the assessment and review of the effective implementation of the Convention" (Article 10.1). More specifically, the Convention and decision 6/CP.1 assign the following tasks to the SBI:

- to **consider the information communicated by all Parties** in accordance with Article 12.1, in order to **assess the overall aggregated effect of the steps taken** in the light of the latest scientific assessments of climate change (Art. 10.2(a));
- to **consider the information communicated by Annex I Parties** in accordance with Article 12.2, in order to **assist the COP in carrying out the review of the adequacy of commitments** (see chapter 11) as required by Article 4.2(d) (Article 10.2(b));
- to assist the COP, as appropriate, in **preparing and implementing its decisions** (Art. 10.2(c)).

In the context of this last task, the SBI reviews the financial mechanism of the Convention (see chapter 13), which is established to assist developing countries in implementing their commitments under the Convention⁹. It also has to make

⁷ Research and systematic observation; see Chapter 15.

⁸ Education, training and public awareness; see Chapter 16.

⁹ Annex I of decision 6/CP.1, paragraph 3(a).

recommendations to the COP on possible responses to the findings of the review of the adequacy of commitments¹⁰. Furthermore, the SBI advises the COP on budgetary and administrative matters¹¹.

2.D. The secretariat

The secretariat, also known as the Climate Change Secretariat, services the COP, the SBs, the Bureau and other bodies established by the COP. Its mandate is laid down in Article 8 of the Convention:

- to **make practical arrangements** for sessions of the Convention bodies, namely the COP and its SBs;
- to **assist Parties**, in particular developing countries, in implementing their commitments;
- to **provide support** to negotiations; and
- to **coordinate** with the secretariats of other relevant international bodies, notably the Global Environment Facility (GEF) and its implementing agencies (United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP) and the World Bank), the IPCC and other relevant conventions.

Specific tasks of the secretariat include preparing official documents for the COP and the SBs, coordinating in-depth reviews of Annex I Party national communications and compiling GHG inventory data. It also carries out tasks that are specified in the programme of work that is adopted by the COP and other tasks decided by the COP.

The secretariat also services the bodies established by the Kyoto Protocol. The growth in technical work since the adoption of the Kyoto Protocol (e.g. on reporting guidelines and the LULUCF sector) has led to increasing the technical expertise within the secretariat.

The secretariat is institutionally linked to the United Nations and administered under United Nations rules and regulations (see also chapter 4). 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 secretariat is accountable, through the Executive Secretary, to the COP.

Every two years, the Executive Secretary proposes a programme budget, setting out the main tasks to be performed by the secretariat in the coming two-year period and the funding needed to carry out this work (see section 2.G).

¹⁰ Annex I of decision 6/CP.1, paragraph 3(b).

¹¹ UNFCCC secretariat, *A Guide to the Climate Change Convention Process*, preliminary 2nd edition, 2002.

In August 2006, Mr. Yvo de Boer (The Netherlands) was appointed Executive Secretary. Mr. de Boer succeeds Ms. Joke Waller-Hunter (The Netherlands) who served as Executive Secretary from 2002 to 2005. She succeeded the first Executive Secretary, Michael Zammit Cutajar (Malta), who headed the secretariat from the beginning of the climate change negotiations in 1991 until his retirement in January 2002.

The secretariat moved from its initial location in Geneva, Switzerland, to Bonn, Germany, in August 1996 after COP 1 had accepted an offer by Germany to host it there (16/CP.1).

2.E. Other bodies

Other bodies have been set up by the COP to undertake specific tasks. These bodies report back to the COP when they complete their work.

COP 1 established two **ad hoc groups** to conduct negotiations on specific issues (see below): the **Ad hoc Group on the Berlin Mandate (AGBM)** and the **Ad hoc Group on Article 13 (AG13) (1/CP.1 and 20/CP.1)**. Another ad hoc group was established by COP/MOP 1 to consider further commitments for Annex I Parties in the context of the Kyoto Protocol (see Box 2.2).

The COP has also established three **limited-membership bodies**, or “expert groups” to move work forward on specific issues (see section below). These bodies have a precise mandate which expires at a certain time, but may be extended by the COP. Additional bodies have been set up in the context of the Kyoto Protocol (see Box 2.3).

COP 11 established the “**Dialogue**” to exchange experiences and analyse strategic approaches for long-term cooperative action to address climate change. The workshops on the dialogue are open to governments and observer organizations and will be open-ended.

The **Joint Working Group**, established to ensure coordination and exchange of information between the SBSTA and the IPCC, is discussed in chapter 4, as is the **Joint Liaison Group**, which facilitates cooperation with other conventions.

A variety of groups of a more informal character have been set up on an ad hoc basis to move the negotiation process forward during sessions. Their existence is therefore usually limited to the session in which they were established. For example, the COP may delegate work to a **Committee of the Whole (COW)**, which is open to all delegations and has its own Chair, to conduct negotiations and report back to the COP. The COP, or the COW, may also convene **negotiating groups**, usually led by members of the Bureau, with the aim of reaching agreement on specific issues. Furthermore, the COP, as well as the SBs, may establish open-ended **contact groups** or **drafting groups**.

2.E.1. Ad hoc groups

The **Ad hoc Group on the Berlin Mandate (AGBM)** was set up to conduct the negotiations that led to the adoption of the Kyoto Protocol (see chapter 11)

Box 2.2: Ad hoc working group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG)

COP/MOP 1 decided to establish an open-ended ad hoc working group of Parties to the Kyoto Protocol to consider further commitments by Annex I Parties for the period beyond 2012, in accordance with Article 3.9 of the Kyoto Protocol (decision 1/CMP.1). It has to aim to complete its work and have its results adopted by the COP/MOP as early as possible and in time to ensure that there is no gap between the first and second commitment periods. It will report to the COP/MOP at each session on progress in its work.

(1/CP.1). It met eight times, plus a resumed eighth session on the eve of COP 3 in 1997, with Raúl Estrada-Oyuela (Argentina) as chair, after which it was disbanded.

The **Ad hoc Group on Article 13 (AG13)** was launched to explore how to implement Article 13 of the Convention (see chapter 6) (20/CP.1). Article 13 calls for the establishment of a “multilateral consultative process” to help governments overcome difficulties they may experience in meeting their commitments. The AG13 met six times, chaired by Patrick Széll (UK), and made its final report to COP 4 in 1998. Although it has been able to agree on almost all the elements of a multilateral consultative process, there is still no consensus on the composition of the committee that would run this process.

2.E.2. Limited-membership bodies

In the framework of the Convention, several specialized bodies with a limited membership have been established to address specific areas, namely:

- the Expert Group on Technology Transfer (EGTT);
- the Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (Consultative Group of Experts, or CGE); and
- the Least Developed Countries Expert Group (LEG).

These groups have been set up on an ad hoc and temporary basis. Their mandate and possible continuation is subject to review by the COP. The nature of their work is technical; their conclusions and recommendations must be reported either to the SBSTA or the SBI.

Expert Group on Technology Transfer (EGTT)

The central task of the EGTT, launched by the Marrakesh Accords at COP 7 in 2001 (4/CP.7), is to provide scientific and technical advice to move forward the development and transfer of environmentally friendly technologies under the Convention (see chapter 14). The group comprises 20 experts, including three developing country members each from Africa, Asia and the Pacific, and Latin America and the Caribbean; one member from the Small Island Developing States (SIDS); seven members from Annex I Parties; and three from relevant international organizations. The EGTT meets twice a year, in conjunction with the SBs, and reports to the SBSTA. The work of the group will be reviewed by COP 12 in 2006.

Consultative Group of Experts on National Communications from Non-Annex I Parties (CGE)

The CGE (see also chapter 18) was set up by COP 5 in 1999 (8/CP.5) to help improve the process of preparing national communications from non-Annex I Parties. It meets no more than twice a year, in conjunction with sessions of the SBs, and holds workshops to gather regional expertise. If considered necessary and funds are available, ad hoc meetings may be convened in consultation with the Chair of the SBI. The CGE reports to the SBI.

At COP 7 in 2001, the CGE was given an additional mandate to look at technical problems and constraints affecting the preparation of initial national communications by those non-Annex I Parties that had not yet completed them. It was also asked to contribute to the ongoing review and improvement of the guidelines for preparing national communications of non-Annex I Parties. The CGE's mandate and terms of reference were reviewed by COP 8 in 2002 and will be reviewed again by COP 13 in 2007.

The CGE comprises 24 members drawn from a roster of experts, namely five experts from the United Nations regions Africa, Asia, and Latin America and the Caribbean, six experts from Annex I Parties, including one from a country with an economy in transition, and three experts from international organizations with relevant experience. The regions appoint the experts to ensure geographical balance and the secretariat selects the experts from each international organization. If required, additional experts are selected on an ad hoc basis from the roster of experts, in consultation with the Chair of the SBI, who decides on their terms and lengths of service. CGE members may serve two consecutive two-year terms.

A representative from one of the three regions, Africa, Asia, and Latin America and the Caribbean, chairs the CGE on a rotational basis for a one-year term. The Rapporteur, also a representative from one of these regions, succeeds the Chair, at which time a new Rapporteur is nominated on a rotational basis. If a member resigns or is otherwise unable to complete the term, the nominating group replaces him or her, following a request from the CGE.

Least Developed Countries Expert Group (LEG)

The LEG, established as part of the Marrakesh Accords, has as its objective to advise LDCs on preparing and implementing national adaptation programmes of action (NAPAs) to meet their urgent and immediate adaptation needs (see chapter 12) (29/CP.7). In 2003, COP 9 extended the group's mandate for another two years under unchanged terms of reference (see decision 7/CP.9), and in 2005, COP 11 extended the mandate for an additional two years with the same terms of reference (see decision 4/CP.11).

The LEG is composed of 12 experts, including five from African LDC Parties, two from Asian LDC Parties, two from small island LDC Parties, and three from Annex II Parties. COP 9 decided that new experts could be selected or current members of the group could continue to serve, as determined by the respective regions or groups. In order to ensure linkages between the LEG and the CGE

on adaptation issues, at least one member of the LEG from an LDC and one from an Annex II Party are also members of the CGE. The Parties select the experts from their respective regions or groups.

Box 2.3: Constituted bodies under the Kyoto Protocol

Clean Development Mechanism (CDM) Executive Board

COP 7, by decision 17/CP.7, adopted "Modalities and procedures for a clean development mechanism as defined in Article 12 of the Kyoto Protocol", which established the CDM Executive Board. It has wide-ranging responsibilities to supervise the CDM "under the authority and guidance of the COP/MOP", to whom it has to be "fully accountable". Before the entry into force of the Kyoto Protocol, the COP exercised this authority. The COP/MOP confirmed the decisions taken by the COP on the CDM Executive Board in decision 4/CMP.1. The Executive Board undertakes a variety of tasks relating to the day-to-day operation of the CDM, including the accreditation of operational entities, pending their formal designation by the COP/MOP.

It is made up of 10 members, including one from each of the five United Nations regional groups, one from the SIDS, and two members each from Annex I and non-Annex I Parties. Members serve in their personal capacity. Only representatives from countries that have become Parties to the Kyoto Protocol are eligible to serve. Each member is accompanied by an alternate from the same constituency. It held its first meeting after the close of COP 7 on 11 November 2001.

Article 6 Supervisory Committee

COP/MOP 1, by its decision 9/CMP.1, established an Article 6 Supervisory Committee to verify emission reduction units (ERUs) that are to be transferred and acquired according to Article 6 of the Kyoto Protocol. This decision establishes detailed "Guidelines for the implementation of Article 6 of the Kyoto Protocol" (Article 6 guidelines) setting out the duties of the Committee and the manner in which it must discharge them. The Committee will oversee a verification procedure for ERUs generated by joint implementation projects in host countries that are not fully meeting eligibility requirements relating to methodological and reporting obligations.

The Article 6 Supervisory Committee is composed of 10 members, each accompanied by an alternate, including three from the EITs, three from Annex I Parties that are not EITs, three from non-Annex I Parties and one from the SIDS. Members serve in their personal capacity.

Compliance Committee

COP/MOP 1, by decision 27/CMP.1, adopted the procedures and mechanisms relating to compliance, including the establishment of a Compliance Committee. The procedures and mechanisms relating to compliance provide that the members of the Committee are elected by the COP/MOP and serve in their individual capacities.

The Committee functions through a plenary, a bureau, a facilitative branch and an enforcement branch. The facilitative branch aims to promote compliance, and may facilitate technical and financial advice, including technology transfer and capacity-building. It may also make recommendations to Parties. The enforcement branch is responsible for determining whether a Party is complying with its obligations, for determining consequences for Parties that are not and, in the event of a disagreement between an expert review team and a Party, whether to apply an adjustment to an inventory and a correction to the compilation and accounting database for assigned amounts.

The Committee is made up of 20 members, with 10 serving in the facilitative branch and 10 in the enforcement branch, each with an alternate. The composition of each branch is the same as the CDM Executive Board: that is, one member from each of the five regional groups, one from the SIDS, and two members each from Annex I and non-Annex I Parties.

The plenary consists of the members of the two branches, with the chairperson and vice-chairperson of each branch making up the bureau. The plenary reports on the activities of the Committee to the COP/MOP, and submits proposals on rules of procedure, administrative and budgetary matters. It also applies general policy guidance received from the COP/MOP.

The LEG meets twice a year and is chaired by a representative from an LDC, who is elected for a one-year term. A Vice-President and two Rapporteurs are also elected from an LDC. Members of the group serve in their personal capacity and are not allowed to have pecuniary or financial interests in the issues under consideration by the group. The LEG reports to the SBI.

2.F. Draft rules of procedure

According to Article 7.2(k), the COP shall “agree upon and adopt, by consensus, rules of procedure and financial rules for itself and for any subsidiary bodies”. Article 7.3 mandated the COP to adopt at its first session such rules for itself and the SBs established by the Convention, “which shall include decision-making procedures for matters not already covered by decision-making procedures stipulated in the Convention”.

Draft rules of procedure were drawn up for adoption by COP 1. Lack of agreement on draft Rule 42 on voting, however, prevented COP 1 from reaching consensus. To enable the COP to proceed with its business, Parties agreed to apply the draft rules of procedure, as contained in COP document FCCC/CP/1996/2, with the exception of Rule 42. As a result of the continuing lack of consensus, this has been the practice ever since.

The outstanding issue is the voting majorities to be established in Rule 42 for decisions on matters of substance, and on matters relating to the financial mechanism regulated by Article 4.3 and Article 11 of the Convention. The United Nations practice, on which the draft rules of procedure are based, exhorts States to reach agreement on all matters of substance by consensus; voting is to be used as a last resort. Since no rule on voting is applied at COP sessions, decision-making on all matters of substance requires consensus. On all matters of procedure, a simple majority of those present and voting is the norm.

The draft rules of procedure are generally followed for the COP sessions, for areas such as voting, setting the date and place of the session, adopting the agenda and conducting business. They are also used to regulate the role of the session president and other officers, the secretariat, and observers.

2.G. Financial rules: budget and financing

In line with Article 7.2(k), COP 1 adopted, by consensus, financial rules for itself, the secretariat and the SBs (“financial procedures”, contained in Annex I of decision 15/CP.1). These rules provide for a two-year financial period, of which the first year must be an even numbered year. This corresponds to the practice in the United Nations at large.

Every two years, the Executive Secretary proposes a programme budget to the SBI, setting out the proposed activities and budget of the secretariat for the coming two years. The SBI considers the proposal and forwards a recommended programme budget to the COP for its approval. The COP adopts the budget by consensus.

Table 2.4: UNFCCC budget 2006–2007

	US dollars
Total programme budget (approved budget for indicative contributions)*	53,501,583
Contingency budget for conference servicing (to be added to the programme budget in the event that the General Assembly decides not to provide resources for these activities in the United Nations regular budget)	7,828,611
Other trust funds (resource requirements for voluntary contributions):	
Trust Fund for Participation	5,650,000
Trust Fund for Supplementary Activities	28,119,395

* of which US\$1,533,876 is paid by the host Government

The resources of the COP comprise contributions by Parties according to an indicative scale adopted by the COP by consensus, voluntary contributions by Parties and the uncommitted balance of appropriations from previous financial periods and miscellaneous income. The indicative scale is based on the United Nations scale of assessments which is adopted by the General Assembly and follows the principle that all Parties should contribute to the Convention budget. The indicative scale, as amended at COP 4, mandates that each Party contributes no less than 0.001 per cent nor more than 25 per cent to the Convention part of the core budget (decision 17/CP.4). However, the maximum assessment rate for the apportionment of the expenses of the United Nations has been lowered to 22 per cent.¹² The Convention applies this cap to any contributor whose adjusted assessed contribution might exceed 22 per cent under either the Convention part of the core budget or the Kyoto Protocol part of the core budget. Voluntary contributions are in addition to the obligatory contributions. Contributions are due on 1 January of each calendar year.

The Executive Secretary is authorized to make transfers within each of the main appropriation lines of the approved budget. The COP has set an aggregate limit of 15 per cent of total estimated expenditure, including a maximum of minus 25 per cent for each appropriation line. The financial rules require the Executive Secretary to provide interim and final reports on the allocation of funds and their use. The accounts and financial management of funds are also subject to the internal and external audit process of the United Nations.

The financial procedures also contain the request to the United Nations Secretary-General to establish two trust funds which bear costs related to the Convention, namely:

- the Trust Fund for the Core Budget of the Convention, which receives contributions from Parties, according to an indicative scale based on the United Nations scale of assessment; and

¹² General Assembly resolution 55/5 of 22 January 2001.

- the Trust Fund for Participation in the Convention process, which receives voluntary contributions and supports participation of eligible representatives from developing country and EIT Parties in the COP and its subsidiary bodies.

Subsequently, two additional trust funds were established in line with the provision contained in the financial rules that, subject to the approval of the COP, the United Nations Secretary-General may establish other trust funds, provided that they are consistent with the objectives of the Convention:

- the Trust Fund for Supplementary Activities, which receives funding donated by Parties in addition to their indicative contributions to the core budget and generally supports public awareness activities, capacity-building, inter-sessional workshops and activities related to the Kyoto Protocol (Parties often earmark their contributions for specific projects); and
- the Trust Fund for the Special Annual Contribution of the Government of Germany (the “Bonn Fund”), which consists of an additional annual contribution from Germany, the host of the secretariat, and primarily supports conferences and other meetings in Bonn (decision 16/CP.3).

The SBI regularly reviews the status of contributions to the funds. At COP 8, Parties adopted a decision noting with concern the large number of Parties that had not made their contributions for 2002 and urging these Parties to do so without delay (decision 16/CP.8). COP 9 and COP 10 both continued to express concern at the continuing trend towards late payment of contributions (decisions 15/CP.9 and 11/CP.10).

The financial rules of the Convention apply to the Kyoto Protocol *mutatis mutandis* (Article 13.5 of the Kyoto Protocol). In this context, COP 11 and COP/MOP 1 agreed that the programme budget for 2006–2007 should be apportioned at 63.2 per cent for the Convention and at 36.8 per cent for the Kyoto Protocol.

Parties, groups and observer states – who is who

This chapter briefly addresses the rights and obligations of Parties to the Convention and the process of becoming or ceasing to be a Party (section 3.A). It also describes the groups of Parties which operate in the context of the Convention and refers to:

- groups of Parties under the Convention (section 3.B);
- regional groups (section 3.C); and
- political negotiating groups (section 3.D).

Finally, this chapter addresses Observer States (section 3.E).

3.A. Parties to the Convention

3.A.1. *Becoming a Party*

States and regional economic integration organizations may become Parties to the Convention. The Convention has, as of August 2006, 189 Parties, including 188 States and 1 regional economic integration organization¹³, namely the European Community. Each Party to the Convention designates a national focal point. According to Article 22, states and regional economic integration organizations become Parties by ratifying, accepting, or approving the Convention. While ratification, acceptance or approval have technical differences, they entail the same consequences, namely that they are legally binding on the entity concerned¹⁴. States and regional economic integration organizations may also accede to the Convention. Accession has the same legal effect as ratification, acceptance or approval. However, unlike ratification, which must be preceded by signature, accession requires only one step, namely, the deposit of an instrument of accession. The Convention has been open for accession since the day after the Convention was closed for signing, which was 19 June 1993 (Article 20). Signing generally does not – in contrast to ratification, acceptance, approval or accession – bind the signatory to the treaty, but obliges it to refrain, in good faith, from acts that would defeat the object and purpose of the treaty. Signing is subject to ratification, acceptance or approval.

Instruments of ratification, acceptance, approval or accession are submitted to the Depositary i.e. the United Nations Secretary-General. Many Parties made declarations with their ratification. Some of them refer to the renunciation of rights under international law on state responsibility or the commitments under Article 4.2 of the Convention. These declarations comment on and specify the Convention but they do not constitute a reservation, as reservations to the Convention are forbidden under Article 24.

¹³ According to Article 1.6, regional economic integration organization means "an organization constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned".

¹⁴ Article 11 of the Vienna Convention on the Law of Treaties stipulates: "The consent of a State to be bound by a treaty may be expressed by signature, exchange of instruments constituting a treaty, ratification, acceptance, approval or accession, or by any other means if so agreed".

A regional economic integration organization is itself bound by all obligations under the Convention if it is a Party to the Convention but none of its member states is (Article 22.2). If member states of such an organization are Parties to the Convention, as well as the organization, the organization and its member states have to agree on their respective responsibilities. In this case, the organization and the member states may not exercise their rights under the Convention concurrently. The regional economic integration organization declares the extent of its competence in its instrument of ratification, acceptance, approval or accession (Article 22.3).

The European Community stated upon ratification (in line with Article 22.3) that it is, alongside its Member States, competent to take action towards the protection of the environment as determined by the Treaty establishing the European Economic Community. Furthermore, the ratification instrument stated that “the commitment to limit anthropogenic CO₂ emissions set out in Article 4.2 of the Convention will be fulfilled by the Community as a whole, through action by the Community and its Member States, within the respective competence of each”¹⁵.

According to Rule 41 of the draft rules of procedure, a regional economic integration organization has a number of votes equal to the number of its member states that are Parties to the Convention. However, it may only exercise its right to vote if none of its member states exercises its voting right on its own.

3.A.2. *Withdrawing from the Convention*

A Party may withdraw from the Convention at any time after three years from the date that the Convention entered into force for that Party (Article 25). To withdraw, Parties must submit a written notification to the Depositary, stating their intention. A withdrawal takes effect at least one year after the date that the Depositary receives the notification. Parties may also determine that the withdrawal comes into effect at a later date. A withdrawal from the Convention automatically entails a withdrawal from any protocol which binds the Party concerned. To date, no Party has withdrawn from the Convention.

3.B. Groups of Parties under the Convention

The Convention establishes a number of groups of Parties. It divides Parties into two main ones: those that are listed in Annex I, known as Annex I Parties (see section 3.B.1), and those not included in Annex I, known as non-Annex I Parties (see section 3.B.3).

Within these principal groups, further distinctions are made. Some of the Annex I Parties are also listed in Annex II of the Convention (see section 3.B.2), while others are in the category of countries with economies in transition (EITs; see section 3.B.4).

¹⁵ EU, Official Journal L 033 , 07/02/1994 pp. 0013 – 0028

Within the group of non-Annex I Parties, the Convention distinguishes least developed countries (LDCs) from others (see section 3.B.5). Furthermore, Article 4.8 highlights a range of categories of developing countries that are particularly vulnerable to the adverse effects of climate change and/or the implementation of measures to respond to it, because of their specific geographical, climatic or economic conditions (see chapter 12).

Annex I Parties

The Convention currently lists 41 industrialized countries as Annex I Parties. They include both the relatively wealthy countries that were members of the Organisation for Economic Co-operation and Development (OECD) in 1992, plus the EITs, including the Russian Federation, the Baltic States, and several Central and Eastern European States.

Annex I Parties have higher per capita emissions than most developing countries and they have greater financial and institutional capacity to address climate change. The principles of equity and “common but differentiated responsibilities” (Article 3.1) that underpin the Convention require these Parties to take a lead in modifying longer-term trends in emissions (see chapter 1). To this end, Annex I Parties pledged to adopt national policies and measures that aim to return national GHG emissions to 1990 levels by the year 2000 (see chapter 11).

Box 3.1: Annex I to the Convention

Australia	Greece	Portugal
Austria	Hungary ^a	Romania ^a
Belarus ^a	Iceland	Russian Federation ^a
Belgium	Ireland	Slovakia ^a *
Bulgaria ^a	Italy	Slovenia ^a *
Canada	Japan	Spain
Croatia ^a *	Latvia ^a	Sweden
Czech Republic ^a *	Liechtenstein*	Switzerland
Denmark	Lithuania ^a	Turkey
European Economic Community	Luxembourg	Ukraine ^a
Estonia ^a	Monaco*	United Kingdom of Great Britain and Northern Ireland
Finland	Netherlands	United States of America
France	New Zealand	
Germany	Norway	
	Poland ^a	

^a Countries that are undergoing the process of transition to a market economy.

* Publisher's note: Countries added to Annex I by an amendment that entered into force on 13 August 1998, pursuant to decision 4/CP.3 adopted at COP.3.

Parties, groups and observer states – who is who

Annex I Parties must submit regular reports, known as national communications, detailing their climate change policies and measures (see chapter 18). By 2004, most Annex I Parties had submitted three national communications. They must also submit an annual inventory of their GHG emissions, including data for their base year (1990 except for some EITs) and all years since, except for the two years before submission. In 2006, Annex I Parties are expected to submit their fourth national communications. These should also include issues governed by the Kyoto Protocol, for those Parties that have ratified it.

Annex II Parties

Annex II of the Convention currently contains 24 Annex I Parties who were OECD members in 1992. They have a special obligation to provide “new and additional financial resources” (Article 4.3) to developing countries to help them tackle climate change (see chapter 13). They must also facilitate the transfer of climate-friendly technologies to both developing countries and EITs (Article 4.5; see chapter 14).

Box 3.2: Annex II to the Convention

Australia	Iceland	Sweden
Austria	Ireland	Switzerland
Belgium	Italy	United Kingdom of Great Britain and Northern Ireland
Canada	Japan	Ireland
Denmark	Luxembourg	United States of America
European Economic Community	Netherlands	
Finland	New Zealand	
France	Norway	
Germany	Portugal	
Greece	Spain	

Publisher's note: Turkey was deleted from Annex II by an amendment that entered into force 28 June 2002, pursuant to decision 26/CP.7 adopted at COP.7.

Parties not included in Annex I (Non-Annex I Parties)

Most of the remaining Parties are developing countries. These Parties must report in more general terms on their actions to address climate change and to adapt to its effects. The time frame for the submission of their initial national communications, including their emission inventories, is less stringent than for Annex I Parties and is contingent on the receipt of funding (see chapter 18). Non-Annex I Parties therefore began submitting their national communications later than Annex I Parties. As of May 2005 124 of 148 non-Annex I Parties had submitted their first national communications and three had submitted the second communication.

Box 3.3: Countries with economies in Transition

Belarus	Hungary	Russian Federation
Bulgaria	Latvia	Slovakia
Croatia	Lithuania	Slovenia
Czech Republic	Poland	Ukraine
Estonia	Romania	

Countries with economies in transition (EITs)

Annex I Parties undergoing the process of transition to a market economy are allowed a certain degree of flexibility in implementing the commitments under Article 4.2 (Article 4.6) to allow for the economic and political changes they have recently undergone. Some EITs have accordingly selected a base year different from 1990 as the reference year for their historic emission levels (see Appendices and chapter 11)

3.B.5. Least Developed Countries (LDCs)

The 49 countries defined as LDCs by the United Nations are also Convention Parties, with the exception of one state (Somalia). They include members of the African Group, the Alliance of Small Island States (AOSIS) and others. They are increasingly active in the climate change process, often working together to defend their particular interests, in, for example, vulnerability and adaptation to climate change. The particular situation of LDCs is recognized by the Convention (Article 4.9, Article 12.5).

3.C. Regional groups

Whereas the Convention itself refers to the groups of Parties mentioned above, the draft rules of procedure refer to the five regional groups that are defined in line with common United Nations practice, namely:

- Africa;
- Asia;
- Central and Eastern Europe;
- Latin America and the Caribbean states (GRULAC); and
- Western Europe and Others (WEOG; the "Others" include Australia, Canada, New Zealand, Turkey and the United States).

In addition to these regional groups, the draft rules of procedure also refer to the group of Small Island Developing States (SIDS). According to Rule 22.1, there are two Bureau members from each of the five regional groups (see chapter 2.A) and one Bureau member from the SIDS; the office of President rotates among the five regional groups. The aim of achieving a balanced representation of the regional groups and SIDS is also reflected in the rules for the composition of certain other bodies under the Convention, notably the constituted bodies (see chapter 2) and bodies set up under the Kyoto Protocol (see Box 2.3).

3.D. Political negotiating groups

Most Parties belong to political negotiating groups, formed on the basis of their common interests. There is no formal process for establishing these groups. Parties decide to form them, and inform the COP Bureau, the SBs or the secretariat. They meet informally during sessions of the COP or the SBs. Their purpose is to exchange information and, quite often, to share information on common issues, and, in some instances, develop and agree on common positions.

Group of 77 and China

The G-77 was founded in 1964 in the context of the United Nations Conference on Trade and Development (UNCTAD) and now functions throughout the United Nations system, comprising 132 members. It consists of small island countries, oil-exporting countries, LDCs, industrializing countries, and middle-income countries.

The country holding the Chair of the group often speaks for the G-77 and China as a whole, provided China was present in the discussions of the group. It only speaks on behalf of the group on issues on which there is previous agreement. If there is no agreement, each country or group of countries is free to take a different position. Accordingly, individual members intervene in debates, as do groups within the G-77 and China, such as the African Group, the Alliance of Small Island States (AOSIS) and the group of Least Developed Countries.

The **African Group** is the only regional group working as an active negotiating group. It consists of 53 members. They have various common concerns, including the lack of resources and vulnerability to extreme weather. The group often makes common statements on various issues, such as capacity-building and technology transfer.

The **Alliance of Small Island States (AOSIS)** is an alliance of 43 small island states and low-lying coastal countries that share similar development challenges and environmental concerns, especially their vulnerability to the adverse effects of global climate change. This group was established in November 1990 during the Second World Climate Conference. The AOSIS countries, united by the threat that climate change poses to their survival, 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 per cent from 1990 levels by 2005. Most of the AOSIS members also belong to the SIDS.

European Union (EU)

While the European Community, represented by the European Commission, has become a Party to the Convention as a regional economic integration organization, the association formed by its Member States is commonly referred to as the European Union (EU)¹⁶. The 25 EU Member States, plus the European

¹⁶ The EU was established in 1992 by the Treaty of Maastricht. The European Community, as one of its constituting elements, is the underlying entity entitled to conclude international treaties.

Commission, meet in private to agree on common positions. The country that holds the EU Presidency – a position that rotates every six months – speaks for the European Community and its Member States. Additionally, individual Member States have been appointed to take the lead in bilateral negotiations with other states or groups and may act as leaders on particular issues.

Umbrella Group

The Umbrella Group is a loose association of developed countries which was formed following the adoption of the Kyoto Protocol at COP 3 in 1997. Although there is no formal list, the group is usually made up of Australia, Canada, Iceland, Japan, New Zealand, Norway, the Russian Federation, Ukraine and the United States. It evolved from the JUSSCANNZ group, which was active during the Kyoto Protocol negotiations (JUSSCANNZ being an acronym for Japan, the United States, Switzerland, Canada, Australia, Norway and New Zealand). The main difference between the two is that the Umbrella Group excludes Switzerland and includes the Russian Federation and Ukraine. Countries in the Umbrella Group share information on issues of common concern, but do not take common positions.

Environmental Integrity Group (EIG)

The EIG is a group comprising Mexico, the Republic of Korea and Switzerland. This group emerged at the thirteenth sessions of the SBs, held in Lyon, in September 2000. It aims to achieve environmental integrity in the outcome of climate change negotiations. It is the only group that brings together non-Annex I (Mexico and the Republic of Korea) and Annex I Parties (Switzerland). Like most other negotiation groups, the EIG develops common positions and feeds them into the climate change process.

Central Group

The Central Group brings together three Parties, namely Bulgaria, Croatia and Romania. It evolved from the Central Group-11 (CG-11) of 11 EITs. When the EU enlargement negotiations concluded in December 2002, the CG-11 was dissolved as those of its members that were to enter the EU in 2004 became part of the EU negotiation group. The three remaining Parties are now candidates for accession to the EU.

Other groups

Several other Parties work collaboratively in the climate change process. Among these are countries from the Organization of Petroleum Exporting Countries (OPEC) and the Central Asia, Caucasus, Albania and Moldova (CACAM).

OPEC

OPEC members – Algeria, Indonesia, Iran, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, Venezuela – meet during the session to coordinate their positions. All the Parties that are members of OPEC are also G-77 members.

CACAM

A number of countries in Asia and Central and Eastern Europe which are not included in Annex I have joined together as Central Asia, Caucasus, Albania and Moldova (CACAM). Although these countries are not included in Annex I,

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they do not consider themselves to be developing countries and are not members of the G-77. They have consequently asked the COP for a clarification of their status under the Convention. However, the COP has been unable to take a decision on this matter and will consider it at a future session.

3.E. Observer States

States that are not Parties to the Convention may attend sessions of the COP and SBs as observers, if they have been invited by the COP President, and if no objections have been raised by more than one third of the Parties present (Article 7.6 and Rule 6.2 of the draft rules of procedure). The secretariat informs them of the date and venue of sessions, and they notify the secretariat of their intention to attend. Observer States are entitled to participate in the sessions, but are not entitled to vote.

Cooperation with UN bodies/agencies and intergovernmental organizations

The Convention calls on the COP to “seek and utilize ... the services and cooperation of, and information provided by, competent international organizations and intergovernmental and non-governmental bodies” (Article 7.2 (l)) in order to promote the implementation of the Convention. To this end, the COP and its SBs cooperate with other international organizations.

This chapter treats the way, based on specific arrangements, the Convention institutions cooperate with other international organizations and bodies:

- the United Nations (section 4.A);
- the Intergovernmental Panel on Climate Change (IPCC) (section 4.B); and
- other multilateral environmental agreements (section 4.C), in particular international efforts to protect the ozone layer (Vienna Convention/Montreal Protocol) and the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD) and the Convention on Wetlands, also known as the Ramsar Convention.

Other important linkages, not covered in this chapter, concern:

- the Global Environment Facility (GEF), which is an operating entity of the Convention’s financial mechanism, as well as the World Bank and regional development banks, which also promote the implementation of the Convention (see chapter 13);
- the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO), on methodologies relating to fuel used for international transport (see Box 18.6 in chapter 18);
- the Food and Agriculture Organization of the United Nations (FAO), the United Nations Forum on Forests (UNFF), and the Collaborative Partnership on Forests (CPF), on issues relating to land use, land-use change and forestry (LULUCF) (see chapter 11);
- the secretariat of the Global Climate Observing System (GCOS) (see chapter 15);
- the World Health Organization (WHO), on issues relating to adverse effects of climate change (see chapter 15); and
- the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO), on issues relating to transferring technology, building capacity and Article 6 of the Convention (see chapter 18).

4.A. Institutional linkage of the Convention secretariat to the United Nations

Climate change has been high on the international agenda for many years and the United Nations is seen as the principal channel of the efforts of the international community to address the challenges it poses.

Box 4.1: Decisions of the Parties and corresponding United Nations General Assembly resolutions on institutional linkage

- COP decision 14/CP.1, Institutional linkage of the Convention secretariat to the United Nations (7 April 1995): United Nations General Assembly resolution 50/115, Protection of global climate for present and future generations of mankind (20 December 1995)
- COP decision 22/CP.5, Institutional linkage of the Convention secretariat to the United Nations (25 October 1999): United Nations General Assembly resolution 54/222, Protection of global climate for present and future generations of mankind (22 December 1999)
- COP decision 6/CP.6, Institutional linkage of the Convention secretariat to the United Nations (27 July 2001): United Nations General Assembly resolution 56/199, Protection of global climate for present and future generations of mankind (21 December 2001)
- COP decision 11/CP.11, Institutional linkage of the Convention secretariat to the United Nations (9–10 December 2005). In this decision, the COP invited the Secretary-General to seek the endorsement of the General Assembly at its sixty-first session for the continuation of the institutional linkage.

The mandate to negotiate a Framework Convention on Climate Change originated in the United Nations General Assembly (UNGA), with its resolution 45/212 of 21 December 1990 entitled “Protection of global climate for the present and future generations of mankind”. The resolution established an Intergovernmental Negotiating Committee. Conference servicing facilities were provided by the Office of Conference Affairs in New York throughout the negotiations until the adoption of the Convention, at which point they were transferred to the United Nations Office in Geneva (UNOG). The negotiating process was organized and conducted under United Nations rules and several national delegations were headed by their Permanent Representatives to the UN in New York.

After negotiating the Convention, Parties agreed to continue the link between the Convention secretariat and the United Nations. The institutional linkage was initially approved by the COP in April 1995 (decision 14/CP.1) and by the UNGA in December 1995 (resolution 50/115). This linkage has been successively confirmed and continued by the COP and the UNGA through decisions and resolutions since then.

It has enabled the secretariat to draw upon the support of the departments, programmes and agencies of the United Nations and to benefit from close working relations within the United Nations community. The secretariat can therefore call on the Department of Economic and Social Affairs, the Office of Legal Affairs and other departments, programmes and agencies on substantive matters. The efforts to protect the global climate are thus conducted under the umbrella of the United Nations.

The administrative aspects of the linkage provide for the secretariat to be subject to United Nations regulations and rules as far as personnel and financial matters are concerned. UNOG provides the secretariat with administrative support for treasury and payroll.

The Executive Secretary is appointed by the Secretary-General of the United Nations after consultation with the COP through its Bureau. S/he is accountable to the COP and enjoys a considerable degree of delegated authority which includes responsibility for financial, procurement and personnel management of the secretariat. The Executive Secretary reports to the Secretary-General on administrative and financial matters through the Under-Secretary-General for Management and on substantive matters through the Under-Secretary-General for Economic and Social Affairs.

Provision is made in the United Nations regular budget for conference services for meetings of Convention and Protocol bodies in accordance with resolutions adopted by the General Assembly. The actual service is provided by UNOG.

4.B. Intergovernmental Panel on Climate Change (IPCC)

The IPCC¹⁷ is not an institution of the Convention, but it contributes important scientific information to the climate change process. It was established before the adoption of the Convention, in 1988, by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) to provide an authoritative source of up-to-date interdisciplinary knowledge on climate change. It does not carry out its own research but comprehensively assesses the scientific, technical and socio-economic information on climate change that is available around the world in peer-reviewed literature, journals, books and other sources. The IPCC is open to all members of the United Nations and WMO. Its secretariat is in the WMO headquarters in Geneva.

4.B.1. Structure

The IPCC is currently structured in three Working Groups. Working Group I addresses the science of climate change, Working Group II deals with impacts, vulnerability and adaptation and Working Group III with mitigation. The IPCC also includes a Task Force on National Greenhouse Gas Inventories, which was established in 1996.

4.B.2. Assessment reports and other publications

The IPCC is best known for its comprehensive assessment reports, incorporating findings from all three Working Groups, which are widely acknowledged as authoritative sources of information on climate change. The First Assessment Report (FAR) in 1990, confirming the scientific basis for concern about climate change, helped launch negotiations on the Convention. The Second Assessment Report (SAR) in 1995, which was made available to COP 2 in 1996, provided a basis for the negotiations that led to the adoption of the Kyoto Protocol. The Third Assessment Report (TAR), submitted to COP 7 in 2001, confirmed the findings of the SAR, providing new and stronger evidence of a warming world. A Fourth Assessment Report (AR4) is to be issued in 2007.

The IPCC also produces shorter special reports and technical papers on specific issues, a number of them at the request of the COP or the SBSTA. Special reports are produced under the guidance of one or more working

¹⁷ <<http://www.ippc.ch>>.

groups following the procedures that are used for writing and reviewing the assessment reports. In 2000, for example, the IPCC issued a *Special Report on Land Use, Land-Use Change and Forestry*, which served as an input into negotiations on the rules for the LULUCF sector under the Kyoto Protocol (see Box 11.3 in chapter 11).

Technical papers are based on material that is already in IPCC assessment reports and special reports. For instance, a technical paper on interlinkages between climate change and biodiversity, released in 2002, was prepared at the request of the CBD (see also section 4.C.2).

Through its Task Force on Inventories, the IPCC carries out important work on methodologies for estimating and reporting GHG emissions (see chapter 18). The *IPCC 1996 Revised Guidelines for National Greenhouse Gas Inventories*, for example, are used by all Parties to prepare their annual emission inventories. In addition, the IPCC has developed guidance to help Parties deal with data uncertainties and support the use of good practice in managing emission inventories.

The IPCC frequently organizes workshops and expert meetings to support the assessment process. It may also co-sponsor workshops if they are considered to be a useful contribution to its own activities.

4.B.3. Funding

A contribution is made to the costs of the IPCC from the Convention's programme budget. From 1996 to 2003, Convention contributions made up around 12 per cent of the IPCC's Trust Fund¹⁸. The main source of funding is voluntary contributions from individual governments; regular funding is also provided by the IPCC's parent organizations, UNEP and WMO.

4.B.4. Cooperation

According to Article 21.2 of the Convention, the secretariat "will cooperate closely with the Intergovernmental Panel on Climate Change to ensure that the Panel can respond to the need for objective scientific and technical advice". Cooperation with the IPCC has been further defined and strengthened by several COP decisions. In 1995, COP 1 invited the SBs, in particular the SBSTA, to submit proposals for future cooperation with the IPCC (decisions 4/CP.1, 6/CP.1). This resulted in a **Joint Working Group (JWG)** of the SBSTA and the IPCC, established the same year. This informal group meets regularly to ensure coordination and exchange information on the activities of the two bodies. The JWG is composed of the Chairs of SBSTA and IPCC, other officers of the Convention and IPCC, and members of the secretariats. Meetings usually take place during the session of the SBs.

The COP has repeatedly expressed its appreciation for the IPCC's work (decisions 6/CP.2, 7/CP.3, 19/CP.5, 25/CP.7 and 9/CP.11) and called on the Convention bodies (in particular the SBSTA) to continue cooperation with the IPCC and to seek its advice. It has also urged Parties to contribute financially to the IPCC's

¹⁸ See IPCC Programme and Budget for 2005 to 2008, IPCC-XXII/Doc.4

work (decisions 19/CP5 and 25/CP7), as well as to nominate and support experts for the IPCC, especially from developing countries (decision 25/CP7).

Relevant COP decisions:

Decision 4/CP1:	Methodological issues
Decision 6/CP1:	The subsidiary bodies established under the Convention
Decision 6/CP2:	Second Assessment Report of the Intergovernmental Panel on Climate Change
Decision 7/CP3:	Cooperation with the Intergovernmental Panel on Climate Change
Decision 19/CP5:	Cooperation with the Intergovernmental Panel on Climate Change
Decision 25/CP7:	Third Assessment Report of the Intergovernmental Panel on Climate Change
Decision 10/CP9:	Scientific, technical and socio-economic aspects of, and vulnerability and adaptation to, climate change, and scientific, technical and socio-economic aspects of mitigation
Decision 1/CP11:	Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention
Decision 9/CP11:	Research needs relating to the Convention

4.C. Cooperation with other environmental agreements

4.C.1. International efforts to protect the ozone layer: Vienna Convention/Montreal Protocol

The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer¹⁹ controls chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which are synthetic compounds that deplete the ozone layer and are also GHGs. It is a protocol of the Vienna Convention for the Protection of the Ozone Layer of 1985. The Convention only addresses those GHGs not already controlled by the Montreal Protocol²⁰. Among these are certain substances which are used as replacements for CFCs and HCFCs because they do not contribute to ozone depletion, but nevertheless act as GHGs. This applies in particular to hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), which have been included in the basket of GHGs subject to control under the Kyoto Protocol. According to the IPCC's Third Assessment Report, the Global Warming Potential (GWP) of HFCs over a time horizon of 20 years ranges from 40 (HFC-161) to 9400 (HFC-23), while that of PFCs ranges from 3900 (CF₄) to 8000 (C₂F₆)²¹. (The GWP is a measure of how much a given mass of GHG is estimated to contribute to global warming. It is a relative scale, which compares the warming effect of the gas in question to

¹⁹ See <<http://www.unep.org/ozone>>.

²⁰ While the Kyoto Protocol (Article 1.4) explicitly stipulates that the reference to the Montreal Protocol extends to all its subsequent adjustments and amendments – which includes possible extensions to substances not mentioned in the 1987 version – the Convention does not contain such provision.

²¹ *Climate Change 2001: The Scientific Basis*, Chapter 6, pp. 388/389. <http://www.grida.no/climate/ipcc_tar/wg1/248.htm>.

that of the same mass of carbon dioxide, whose GWP is set as 1; see also Box 18.7 in chapter 18).

In 1998, COP 4 invited Parties, the bodies of the Montreal Protocol, and intergovernmental organizations (IGOs) and non-governmental organizations (NGOs) to provide information on ways of limiting emissions of HFCs and PFCs, including their use as replacements for ozone-depleting substances. COP 4 also encouraged convening a joint workshop by the IPCC and the Technology and Economic Assessment Panel (TEAP) of the Montreal Protocol (decision 13/CP.4).

Following a request by COP 5 to further consider “information aspects” of the HFC/PFC issue (decision 17/CP.5), SBSTA 15 (October/November 2001) invited Annex I Parties, IGOs and NGOs to update information²², and asked all Parties to submit their views on information aspects²³. On the basis of these submissions, SBSTA 16 (June 2002) considered it vital to disseminate policy-neutral information on alternatives to ozone-depleting substances that also affect the climate system. It encouraged Parties and organizations to continue to make such information available and also noted the importance of a concise and balanced scientific, technical and policy-relevant information package.

In this context, COP 8, by decision 12/CP.8, invited the IPCC and TEAP to develop a special report, covering:

- up-to-date scientific information on the relation between ozone-layer depletion and global warming;
- practices and technologies for phasing out ozone-depleting substances and at the same time contributing to the objectives of the Montreal Protocol and the Convention; and
- the future demand and supply of HFCs and the implications for developing countries.

SBSTA 22 (May 2005) expressed its appreciation for this report²⁴ and encouraged Parties to use the information for their national climate strategies.

Relevant COP decisions:

- Decision 13/CP.4: Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system: issues related to hydrofluorocarbons and perfluorocarbons
- Decision 17/CP.5: Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system

²² Compiled in FCCC/SBSTA/2002/INF.1.

²³ See FCCC/SBSTA/2002/MISC.6 and Add.1.

²⁴ *Special Report on Safeguarding the Ozone Layer and the Global Climate System: Issues Related to Hydrofluorocarbons and Perfluorocarbons*, IPCC/TEAP Special Report.

Decision 12/CP.8: Relationship between efforts to protect the stratospheric ozone layer and efforts to safeguard the global climate system: issues relating to hydrofluorocarbons and perfluorocarbons

4.C.2. Conventions on biological diversity, desertification, and wetlands

With the UNFCCC, two other environmental conventions were developed in close connection with the 1992 Earth Summit in Rio de Janeiro and are therefore known as the “Rio Conventions”. These are the Convention on Biological Diversity (CBD)²⁵, which was adopted at the Earth Summit, and the 1994 United Nations Convention to Combat Desertification (UNCCD)²⁶, preparation of which was begun there. The CBD and UNCCD, as well as parties to other conventions such as the Convention on Wetlands (Ramsar, Iran, 1971)²⁷, have been actively involved in the UNFCCC process, exchanging information and expertise on activities and outcomes from their processes.

Interlinkages of issues to do with climate change, biodiversity and desertification can be found in a broad range of ecosystem types and different natural resource issues. This includes areas such as:

- dry and sub-humid lands;
- wetlands;
- biological diversity of forests;
- agricultural resources; and
- marine and coastal resources (of particular concern is the possible contribution of climate change to the bleaching of coral reefs).

At SBSTA 10 (June 1999), the Convention secretariat was encouraged to explore ways of cooperating with the secretariats of the other Rio Conventions to strengthen collaboration on issues of common interest. Since then, cooperation with other conventions has become an integral part of the SBSTA agenda.

In July 2001, SBSTA 14 endorsed the formation of a **Joint Liaison Group (JLG)** of the CBD, the Convention and the UNCCD, following a proposal by the CBD’s Subsidiary Body for Scientific, Technical and Technological Advice (SBSTTA). The JLG consists of the respective officers of the SBs, the Executive Secretaries and other members of the convention secretariats. It aims to develop coordination between the three conventions.

SBSTA 15 invited Parties to submit their views on cooperation between the conventions²⁸. Following a request by SBSTA 16, the secretariat, in cooperation with the JLG, prepared a scoping paper identifying the following main cross-cutting themes and activities of the CBD the Convention and UNCCD²⁹:

²⁵ <<http://www.biodiv.org>>.

²⁶ <<http://www.unccd.int>>.

²⁷ <<http://www.ramsar.org>>.

²⁸ The submissions were compiled in FCCC/SBSTA/2001/MISC.8.

²⁹ FCCC/SBSTA/2002/INF.16.<http://ramsar.org/cop8/cop8_docs_index_e.htm>.

- technology transfer;
- education and outreach;
- research and systematic observation;
- capacity-building;
- reporting; and
- impacts and adaptation.

COP 8 requested that the SBSTA develop cooperation with the subsidiary bodies of the UNCCD and CBD, and urged the JLG to continue its efforts to maximize coordination between the three conventions and their secretariats (decision 13/CP.8). The COP affirmed the need to invite the secretariat of the Ramsar Convention to share information and to participate in the meetings of the JLG, as appropriate.

Following guidance from the SBSTA and the SBI, two workshops on possible synergy and joint action with the other multilateral environmental conventions and agreements, and on enhancing cooperation with other conventions, were held in July 2003 in Espoo, Finland³⁰. Another workshop, dealing especially with forests and forest ecosystems, was organized by the UNCCD and CBD³¹.

Substantial information on the linkages between climate change and biodiversity is contained in reports by the CBD secretariat³² and the IPCC³³. Similarly, the linkages between wetlands and climate change, with respect to the Ramsar Convention, were examined by the World Conservation Union (IUCN)³⁴ and the Ramsar Convention's Scientific and Technical Review Panel³⁵.

Relevant COP decision:

Decision 13/CP.8: Cooperation with other conventions

³⁰ A report of these two workshops is contained in FCCC/SB/2003/1.

³¹ For the workshop report, see <<http://www.unccd.int/workshop/docs/finalreport.pdf>>.

³² Secretariat of the Convention on Biological Diversity (2003): *Interlinkages between biological diversity and climate change. Advice on the integration of biodiversity considerations into the implementation of the United Nations Framework Convention on Climate Change and its Kyoto Protocol*. CBD Technical Series no. 10. <<http://www.biodiv.org/doc/publications/cbd-ts-10.pdf>>.

³³ Intergovernmental Panel on Climate Change (2002): *Climate change and biodiversity*. IPCC Technical Paper V. <<http://www.ipcc.ch/pub/tpbiodiv.pdf>>.

³⁴ IUCN (1999): *Wetlands and Climate Change*. <http://www.ramsar.org/key_unfccc_bkgd.htm>.

³⁵ *Climate Change and Wetlands: Impacts, Adaptation and Mitigation*. COP8 DOC 11. <http://ramsar.org/cop8/cop8_docs_index_e.htm>.

Observer organizations and the media

A considerable number of COP participants are not representatives of Parties but observers. General rules for their participation are laid down in the Convention and the rules of procedure. These general provisions are discussed in section 5.A. Specific observer organizations and provisions for their participation are described in later sections. They include United Nations bodies and agencies (section 5.B) and other intergovernmental organizations (IGOs) and non-governmental organizations (NGOs) (section 5.C). Finally, the role of the media in the climate change process is briefly addressed (section 5.D).

5.A. General rules: participation and rights of observers

Article 7.6 of the Convention provides that:

the United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State Member thereof or observers thereto not Party to the Convention, may be represented at sessions of the Conference of the Parties as observers. Any body or agency, whether national or international, governmental or non-governmental, which is qualified in matters covered by the Convention, and which has informed the secretariat of its wish to be represented at a session of the Conference of the Parties as an observer, may be so admitted unless at least one third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

The participation of observers is regulated in further detail by Rules 6, 7, 8 and 30 of the draft rules of procedure (see chapter 2).

Rule 6 reaffirms the provisions of Article 7.6 regarding **United Nations** and United Nations-related bodies and agencies and extends them to “any international entity or entities entrusted ... with the operation of the financial mechanism” of the Convention i.e. the Global Environment Facility (GEF). Furthermore, “such observers may, upon invitation of the President, participate without the right to vote in the proceedings of any session, unless at least one third of the Parties present at the session object”.

Rule 7 addresses the participation of **other organizations**, encompassing both IGOs and NGOs. While also reaffirming the provisions of Article 7.6 concerning these organizations, it states that “such observers may, upon invitation of the President, participate without the right to vote in the proceedings of any session in matters of direct concern to the body or agency they represent, unless at least one third of the Parties present at the session object”.

The participation of United Nations and United Nations-related bodies and agencies thus follows rules different from those governing other observer organizations, insofar as it does not require an admission procedure and is not

Box 5.1: Side-events and exhibits

A tradition of informal side-events and exhibits has developed in the margins of the official meetings, organized mostly by the NGO community, but also by IGOs, United Nations bodies, the secretariat and Parties. At COP 11, for example, 150 side-events and 93 exhibits took place. The side-events, including workshops and seminars, provide a forum for the organizers to showcase their activities, as well as to voice their concerns, proposals and ideas on issues in the negotiations. The exhibits provide participants with information on a variety of products and issues related to climate, including new technologies, scientific research, ways of mitigating climate change or adapting to it, project results, videos and a host of other materials.

limited to sessions which deal with matters of direct concern to the respective organization. The admission procedure for other IGOs and NGOs is further described in section 5.C.

Rule 8 provides for the **secretariat** to notify those entitled to be observers of the date and venue of any session scheduled by the COP.

Rule 30 stipulates that meetings of the COP are to be held in public and SB meetings in private unless the COP decides otherwise. However, this rule also contains an interpretative footnote specifying that duly accredited observers should also be permitted to participate in 'private' meetings.

Decision 18/CP.4 regulates the attendance of observers at **open-ended contact groups**. The presiding officers of Convention bodies may invite representatives of both IGOs and NGOs "to attend as observers any open-ended contact group established under the Convention process, unless one third of the Parties present at the session of the Convention body setting up that contact group object". However, the presiding officers of a contact group may close the group to observers at any time.

Plenary sessions of the COP regularly include statements from observers. The COP President, the chairs of the SBs and the chairs of contact groups may also permit interventions by observers on specific items when deemed appropriate.

Between sessions, observer organizations may be invited to submit their views on specific issues. While this is long-standing practice for IGOs, SBI 20 (June 2004) concluded that requests for submission of information and views could be extended to NGOs where appropriate, on the understanding that such submissions would not be issued as official documents, but would be made available on the secretariat web site only (for further relevant SBI 20 conclusions, see section 5.C).

Furthermore, observers have played a major role in organizing informal side-events and exhibits connected with COP or SB sessions (see Box 5.1).

5.B. United Nations bodies and agencies

United Nations bodies and agencies that regularly attend sessions of the Convention bodies include the United Nations Conference on Trade and

Development (UNCTAD), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), the United Nations Institute for Training and Research (UNITAR) and the United Nations University (UNU).

Secretariats of other environment-related conventions (see chapter 4) also regularly attend sessions of the COP and its SBs.³⁶

Many of the United Nations specialized bodies and agencies have strong working relationships or even specific institutional arrangements with the Convention (see chapter 4). These include the GEF and the IPCC, the Food and Agriculture Organization of the United Nations (FAO), the United Nations Industrial Development Organization (UNIDO), the World Bank, the World Health Organization (WHO), the World Meteorological Organization (WMO), the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO).

As related organizations of the United Nations system, the International Atomic Energy Agency (IAEA) and the World Trade Organization (WTO) have also been regularly represented at sessions of the Convention bodies.

5.C. Other IGOs and NGOs

To be admitted as observers, IGOs and NGOs have to provide, inter alia:

- a statement of competence in Convention matters (in line with the provisions of Article 7.6);
- confirmation of independent juridical personality;
- confirmation of non-profit and/or tax-exempt status in a State Member of the United Nations, of one of its specialized agencies or of the IAEA, or in a State Party to the International Court of Justice.

A full list of information required for the application procedure is available on the secretariat's web site.

The secretariat draws up a list of eligible applicants, which is then communicated to the COP Bureau. If there are no objections by the Bureau, the organizations are informed that they may attend the sessions of the SBs where they are provisionally admitted. The final decision on admission, however, rests with the COP and will be considered under the appropriate agenda item at the following session.

5.C.1. IGOs

Currently, 56 IGOs are admitted as observers. Some of them have regularly provided statements to the COP or contributed in other ways to the Convention process. Among these are the Organisation for Economic Co-operation and Development (OECD); the International Energy Agency (IEA); the

³⁶ As the Ramsar Convention on Wetlands is not part of the United Nations system of environmental treaties, it belongs to the IGOs treated below.

Box 5.2: Admission of observer organizations to the COP/MOP

Observer organizations already admitted to COP sessions are also admitted to the Conference of the Parties serving as the meeting of Parties to the Kyoto Protocol (COP/MOP), according to decision 36/CMP.1. This decision also stipulated that a single admission process would be used for the COP and the COP/MOP and that the COP would take the decision on admission.

Organization of Petroleum Exporting Countries (OPEC); and the Asian Development Bank.

5.C.2. NGOs

Currently, more than 750 NGOs are admitted as observers. In the course of the Convention process, observer NGOs which share certain common interests or perspectives have formed loose groups known as “constituencies”. Constituencies mainly serve to facilitate communication with the secretariat; each has its focal point to channel this communication. However, this is an informal arrangement which does not preclude other ways of communicating. Currently the following five constituencies are acknowledged:

- business and industry NGOs (BINGOs) (already in existence before COP 1);
- environmental NGOs (ENGOs) (already in existence before COP 1);
- indigenous peoples’ organizations (IPOs) (since COP 7);
- local government and municipal authorities (LGMAs) (since COP 1); and
- research-oriented and independent organizations (RINGOs) (since COP 9).

Certain other types of observer organizations are not covered by these broad groupings. This is true, for instance, for faith groups, trade unions and parliamentarians.

In addition to the formal arrangements regulating attendance and participation of observers described above, other, less formal arrangements have been made. Observers participating in workshops mandated by the COP or SBs, for instance, are arranged individually for each workshop, depending on its nature and purpose and the resources available. The chairs of the SBs, advised by the workshop chairs, play a key role in deciding whether and how many observers will be invited.

The secretariat has issued guidelines for the participation of NGO representatives³⁷ to promote a harmonious atmosphere that favours discussion and negotiation and to encourage observers to participate effectively. These guidelines, which are based on current practice, are not exhaustive but cover access, etiquette and safety, participation and information materials.

³⁷ *Guidelines for the participation of representatives of non-governmental organizations at meetings of the bodies of the United Nations Framework Convention on Climate Change*, March 2003.

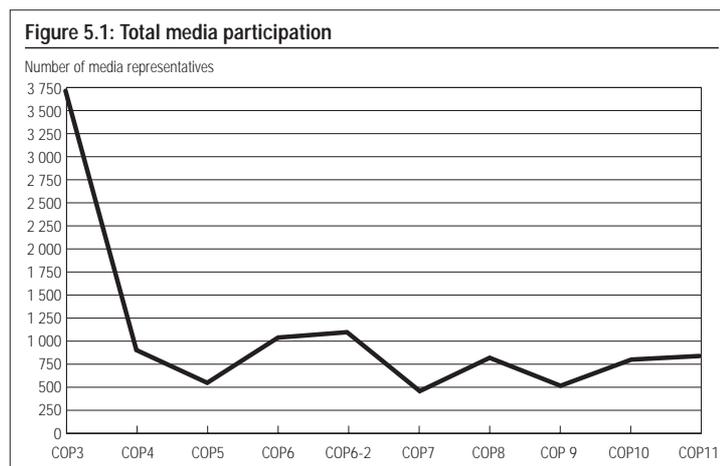
SBI 20 (June 2004) considered the current practice of admitting observer organizations, in particular NGOs, and their participation, along with possible ways of improving effectiveness. Recognizing the importance of a more balanced representation of NGOs, SBI 20 encouraged interested Parties to support the attendance of NGOs from developing countries and countries with economies in transition that lack the necessary resources to support their participation. The SBI agreed to continue consideration of effective participation of observers at future sessions.

5.D. The media

With their potential to raise awareness and provide support to the response of the international community to the challenges posed by climate change, the media fulfil an important role. Accredited representatives of the press and broadcast media attend the sessions of the COP and SBs. They may sit in on official meetings, attend side-events and press conferences, and conduct interviews with key officials in order to gather information for reports and feature articles to be used in print, radio or television media.

Press conferences and briefings are called by Parties, NGOs and the secretariat during the sessions of the COP, especially during the higher-profile ones. These press conferences typically attract widespread coverage on the world's television networks, radio, and in the press. During COP 11 and COP/MOP 1, for example, 825 media representatives from 230 media organizations were present. Journalists from developing countries are often supported by governmental and intergovernmental organizations to attend COP sessions so as to promote media coverage of the climate change issues in these countries.

The graph below shows how media attendance has evolved between COP 3 and COP 11.



Multilateral consultative process: Article 13

Article 13 of the Convention states that “the Conference of the Parties shall, at its first session, consider the establishment of a multilateral consultative process, available to Parties on their request, for the resolution of questions regarding the implementation of the Convention”.

COP 1, by decision 20/CP.1, established a working group – the so-called **Ad Hoc Group on Article 13 (AG13)** – to design the multilateral consultative process (see chapter 2). Between 1995 and 1998 the group met six times. COP 4, by decision 10/CP.4, agreed the text of the multilateral consultative process as prepared by the AG13, apart from two paragraphs on representation on the Multilateral Consultative Committee (see below)³⁸. As this outstanding issue could not be resolved at following COP sessions either, the multilateral consultative process has not yet come into being.

The **objective** of the multilateral consultative process is to resolve questions regarding the implementation of the Convention (the terms of reference appear in the Annex to decision 10/CP.4). This objective is to be achieved by:

- advising Parties on, or assisting them with their difficulties in implementing the Convention;
- promoting understanding of the Convention;
- preventing disputes from arising.

The terms of reference further specify that the multilateral consultative process is to be conducted in a facilitative, non-confrontational, transparent and timely manner, and to be non-judicial. Parties concerned are entitled to participate fully in the process, which is separated from, and without prejudice to, the settlement of disputes in accordance with Article 14 of the Convention (see chapter 7).

The process can be initiated by

- a Party or a group of Parties if they experience difficulties in implementation;
- a Party or a group of Parties with respect to another Party or a group of Parties;
- the COP itself.

The terms of reference of the multilateral consultative process provide for a standing **Multilateral Consultative Committee** to be established, composed of experts nominated by Parties. However, a committee has not yet been established, because of the continued lack of consensus over its composition. Disagreements persist on the number of its members – with options ranging from 10 to 25 – and on the adequate representation of groups of Parties.

³⁸ See also FCCC/AG13/1998/2, *Report of the Ad Hoc Group on Article 13 on its sixth session*.

According to the terms of reference, the Committee should consider questions on implementing the Convention in consultation with the Party or Parties concerned and provide appropriate assistance by:

- clarifying and resolving questions;
- providing advice and recommendations on procuring technical and financial resources to resolve these difficulties;
- advising on compiling and communicating information.

The conclusions and recommendations of the Committee should be sent to the Party or Parties concerned and they should be given the opportunity to comment on them. Such comments may include:

- recommendations on cooperation between the Party or Parties concerned and other Parties to further the objective of the Convention;
- recommendations on measures to be taken by the Party or Parties concerned for the effective implementation of the Convention.

The Committee should convene at least once a year. Whenever practicable, the meeting should take place in conjunction with the sessions of the COP or its SBs, during which the Committee should report on all aspects of its work.

Settling disputes

According to the United Nations Charter, Article 33, “peaceful dispute settlement” means solving disputes by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of the parties’ own choice. In a similar way, Article 14 of the Convention governs dispute settlement under the Convention. Article 14.1 commits Parties to seeking to settle a dispute over the interpretation or application of the Convention through negotiations or any other peaceful means of their own choice.

The Convention further offers Parties two options for a compulsory and binding settlement of disputes, namely compulsory jurisdiction of the International Court of Justice (ICJ) and arbitration. The Convention also provides for conciliation as an option for the non-binding resolution of a conflict. Parties have not yet used the Convention’s dispute settlement procedure.

According to Article 14.2 of the Convention, any Party which is not a regional economic integration organization may declare in a written instrument³⁹ to the Depositary i.e. the United Nations Secretary-General, that it recognizes the compulsory jurisdiction of the ICJ and/or of arbitration procedures to be adopted by the COP ipso facto and without special agreement, in relation to any Party accepting the same obligation. A Party which is a regional integration organization, i.e. the European Community, may only subject itself to arbitration. Any Party issuing a declaration in accordance with Article 14.2 may limit its duration or may revoke it in writing. A revoked declaration will expire after three months (Article 14.3). A dispute pending before the ICJ or an arbitral tribunal remains subject to their jurisdiction irrespective of any new declaration, the expiry of an existing declaration or a revocation, unless the parties to the dispute agree otherwise (Article 14.4).

Only Parties that have submitted a declaration and have subjected themselves to the jurisdiction of the ICJ or to arbitration can settle a dispute by these means. As of mid-2004, the Solomon Islands was the only Party that had recognized the arbitration procedures as compulsory. Cuba has declared that disputes should be settled through negotiations through diplomatic channels.

Both the ICJ and arbitration produce binding verdicts. If a dispute is submitted to the ICJ, the Court determines the applicable law, the judges and the basic procedures in accordance with its Statute. If a dispute is submitted for arbitration, the arbitration procedures to be adopted by the COP apply. However, the COP has not yet adopted these procedures in an annex on arbitration, as foreseen in Article 14.2(b). Under these circumstances, parties to a dispute could, in accordance with Article 14.1, agree among themselves on arbitration procedures, governed by an individual agreement between the Parties concerned and general international law.

³⁹ This declaration remains in force until it expires or until three months after written notice of its revocation has been deposited with the Depositary. A new declaration, a notice of revocation or the expiry of a declaration does not affect pending proceedings, unless the parties to the dispute agree otherwise.

For the non-binding option, conciliation, the Convention requires that the Parties concerned have been unable to settle their dispute through negotiations or other peaceful means of their own choice within twelve months of the notification of the dispute by one party (Article 14.5). Conciliation is conducted by a conciliation commission, composed of an equal number of members appointed by each Party concerned and a chairman chosen jointly by the members appointed by each Party. The commission renders a recommendatory award, which the parties have to consider in good faith (Article 14.6). Consequently, the outcome is not legally binding but has to be taken into account by the Parties. According to Article 14.7, the COP has to adopt additional procedures in an annex on conciliation as soon as practicable. The COP has not yet done so.

According to Article 14.8, the provisions of the Convention on settling disputes apply to any related legal instrument which the COP may adopt, unless the instrument provides otherwise. Accordingly, Article 19 of the Kyoto Protocol determines that the provisions of Article 14 of the Convention apply to the Protocol, *mutatis mutandis*, i.e. adapted insofar as necessary for the purposes of the Protocol.

Amending the Convention

According to Article 15 of the Convention, any Party may propose amendments to the Convention. The secretariat communicates the text of the proposed amendment to the Parties, to signatories and the Depositary i.e. the United Nations Secretary-General at least six months before the meeting at which it is proposed for adoption. Amendments to the Convention may only be adopted at an ordinary session of the COP (as opposed to an extraordinary session that may be convened in accordance with Article 7.5 of the Convention).

The Convention should generally be amended by consensus. If it proves impossible to reach consensus, an amendment may be adopted by a three-fourths majority vote of the Parties present and voting (i.e. actually casting an affirmative or negative vote) as a “last resort”. Once adopted, the amendment is communicated by the secretariat to the Depositary who circulates it to all Parties.

An adopted amendment must be ratified by three fourths of the Parties before it enters into force. The amendment enters into force 90 days after the Depositary has received the necessary number of ratification instruments. It binds only those Parties which have accepted it. For Parties accepting the amendment at a later stage, it enters into force 90 days after the Depositary has received their instrument of ratification. No amendment to the Convention has yet been adopted.

Chapter

Adopting, amending and reviewing annexes

The Convention currently has two annexes, namely Annex I, containing 41 Parties, and Annex II, containing 24 Parties (see chapter 3). According to Article 16 of the Convention, annexes are an integral part of the Convention. They may generally only contain lists, forms and any other material of a descriptive nature that is of a scientific, technical, procedural or administrative character. The annexes foreseen by Article 14.2(b) and 14.7, containing provisions on arbitration and conciliation procedures, are exempted from this rule (see chapter 7).

Additional annexes as well as amendments to annexes are proposed and adopted in accordance with the procedure for amending the Convention (see chapter 8). Accordingly, only Parties may propose them. The secretariat communicates the text of a proposed annex or amendment to an annex to the Parties, any further Signatories and the Depositary. Adoption requires consensus or, if this proves impossible, a three-fourths majority vote of the Parties present and voting. Additional annexes or amendments to annexes are communicated to all Parties after they have been adopted.

In contrast to amendments to the Convention, new annexes and amendments to annexes do not need to be ratified but come into force automatically, except in the case that Parties lodge a written objection. For all other Parties, a new annex or an amendment to an annex enters into force six months after the date of the communication by the Depositary to these Parties. The annex or amendment becomes binding on Parties that withdraw a previous notification of non-acceptance on the ninetieth day after the Depositary has received the notification of withdrawal. If the adoption of an annex or an amendment to an annex occurs as part of an amendment to the Convention, the annex or amendment to an annex only enters into force when this amendment to the Convention takes effect.

Article 4.2(f) called on the COP to review the lists in Annexes I and II not later than 31 December 1998 and amend them as appropriate, with the approval of the Party concerned. In line with this, Annex I was amended at COP 3 in 1997, by consensus, to add the names of Croatia, Liechtenstein, Monaco and Slovenia, and to replace Czechoslovakia with the Czech Republic and Slovakia (decision 4/CP.3). The amendment came into force on 13 August 1998. Annex II was amended at COP 7 to delete the name of Turkey from Annex II (decision 26/CP.7). COP 7 also invited the Parties to recognize the special circumstances of Turkey. This amendment entered into force on 28 June 2002. Turkey became a Party on 24 May 2004.

In accordance with Article 4.2(g), any non-Annex I Party may notify the Depositary that it intends to be bound by the commitments contained in Article 4.2(a) and (b) relating to the mitigation of climate change (see chapter 11.B). Kazakhstan took such action in 2000.

Adopting protocols

According to Article 17, the Convention may be supplemented with protocols adopted by the COP at any ordinary session.

As the Convention does not specify voting rules for the adoption of protocols, the general voting rules of the COP apply. As mentioned in chapter 2, the COP has not yet been able to adopt rules of procedure as envisaged by Article 4.2(k) of the Convention. Continuing disagreement over voting rules means that the draft rules of procedure are applied with the exception of the draft rule on voting. As a consequence, all decisions of the COP have to be taken by consensus. To be adopted, “the text of any proposed protocol shall be communicated to all Parties by the secretariat at least six months before a session” (Article 17.2).

According to Article 17.3 of the Convention, “the requirements for the entry into force of any protocol shall be established by that instrument” i.e. the protocol. Only Parties to the Convention may be Parties to a protocol; decisions under any protocol shall be taken only by the Parties to the Protocol concerned.

So far, Article 17 of the Convention has been employed once. By decision 1/CP.3 of 11 December 1997, COP 3 adopted the Kyoto Protocol unanimously. It entered into force on 16 February 2005, in accordance with Article 25.1 of the Kyoto Protocol which set as the date for the protocol’s entry into force “the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession”.

Box 10.1: Decision 1/CP.3 adopting the Kyoto Protocol**Adoption of the Kyoto Protocol to the United Nations Framework Convention on Climate Change**

The Conference of the Parties,

Having reviewed Article 4, paragraph 2(a) and (b), of the United Nations Framework Convention on Climate Change at its first session and having concluded that these subparagraphs are not adequate,

Recalling its decision 1/CP.1 entitled "The Berlin Mandate: Review of the adequacy of Article 4, paragraph 2(a) and (b), of the Convention, including proposals related to a protocol and decisions on follow-up", by which it agreed to begin a process to enable it to take appropriate action for the period beyond 2000 through the adoption of a protocol or another legal instrument at its third session,

Recalling further that one aim of the process was to strengthen the commitments in Article 4, paragraph 2(a) and (b) of the Convention, for developed country/other Parties included in Annex I, both to elaborate policies and measures, and to set quantified limitation and reduction objectives within specified time frames, such as 2005, 2010 and 2020, for their anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol,

Recalling also that, according to the Berlin Mandate, the process will not introduce any new commitments for Parties not included in Annex I, but reaffirm existing commitments in Article 4, paragraph 1, and continue to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7,

Noting the reports of the Ad Hoc Group on the Berlin Mandate on its eight sessions,⁴⁰

Having considered with appreciation the report presented by the Chairman of the Ad Hoc Group on the Berlin Mandate,

Taking note with appreciation of the report of the Chairman of the Committee of the Whole on the outcome of the work of the Committee,

Recognizing the need to prepare for the early entry into force of the Kyoto Protocol to the United Nations Framework Convention on Climate Change,

Aware of the desirability of the timely commencement of work to pave the way for a successful outcome of the fourth session of the Conference of the Parties, to be held in Buenos Aires, Argentina,

1. *Decides to adopt* the Kyoto Protocol to the United Nations Framework Convention on Climate Change, annexed hereto;
2. *Requests* the Secretary-General of the United Nations to be the Depositary of this Protocol and to open it for signature in New York from 16 March 1998 until 15 March 1999;

⁴⁰ FCCC/AGBM/1995/2 and Corr.1, and 7 and Corr.1; FCCC/AGBM/1996/5, 8, and 11; FCCC/AGBM/1997/3, 3/Add.1 and Corr.1, 5, 8 and 8/Add.1.

3. *Invites* all Parties to the United Nations Framework Convention on Climate Change to sign the Protocol on 16 March 1998 or at the earliest opportunity thereafter, and to deposit instruments of ratification, acceptance or approval, or instruments of accession where appropriate, as soon as possible;
4. *Further invites* States that are not parties to the Convention to ratify or accede to it, as appropriate, without delay, so that they may become Parties to the Protocol;
5. *Requests* the Chairman of the Subsidiary Body for Scientific and Technological Advice and the Chairman of the Subsidiary Body for Implementation, taking into account the approved programme budget for the biennium 1998–1999 and the related programme of work of the secretariat,⁴¹ to give guidance to the secretariat on the preparatory work needed for consideration by the Conference of the Parties, at its fourth session, of the following matters, and to allocate work thereon to the respective subsidiary bodies as appropriate:
 - (a) Determination of modalities, rules and guidelines as to how, and which, additional human-induced activities related to changes in greenhouse gas emissions by sources and removals by sinks in the agricultural soils and the land-use change and forestry categories shall be added to, or subtracted from, the assigned amounts for Parties to the Protocol included in Annex I to the Convention, as provided for under Article 3, paragraph 4, of the Protocol;
 - (b) Definition of relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability of emissions trading, pursuant to Article 17 of the Protocol;
 - (c) Elaboration of guidelines for any Party to the Protocol included in Annex I to the Convention to transfer to, or acquire from, any other such Party emission reduction units resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy, as provided for under Article 6 of the Protocol;
 - (d) Consideration of and, as appropriate, action on suitable methodologies to address the situation of Parties listed in Annex B to the Protocol for which single projects would have a significant proportional impact on emissions in the commitment period;
 - (e) Analysis of the implications of Article 12, paragraph 10, of the Protocol;
6. *Invites* the Chairman of the Subsidiary Body for Scientific and Technological Advice and the Chairman of the Subsidiary Body for Implementation to make a joint proposal to those bodies, at their eighth sessions, on the allocation to them of preparatory work to enable the Conference of the Parties serving as the meeting of the Parties to the Protocol, at its first session after the entry into force of the Protocol, to accomplish the tasks assigned to it by the Protocol.

*12th plenary meeting
11 December 1997*

⁴¹ FCCC/CP/1997/INF.1.



Chapter

Mitigating climate change

Mitigating climate change and its impacts lies at the heart of the Convention's objective. Stabilizing GHG concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, which is the ultimate objective of the Convention (see chapter 1), can be achieved in two ways. The first is by limiting or, as appropriate, reducing anthropogenic GHG emissions by **sources** and the second by preserving or, as appropriate, enhancing **sinks and reservoirs** of GHGs.

For the purposes of the Convention, Article 1 defines a **source** as “any process or activity which releases a greenhouse gas, an aerosol or a precursor of a greenhouse gas into the atmosphere”; a **sink** as “any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere” and a **reservoir** as “a component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored”. **Climate system** is defined as the totality of the atmosphere, geosphere, hydrosphere and biosphere and their interactions, thus including not only the atmosphere, but also earth, water, and living organisms.

This chapter discusses the provisions and activities related to mitigation under the climate change process. Section 11.A addresses commitments relevant to all Parties, while section 11.B addresses those that are relevant specifically to Annex I Parties; section 11.C refers to activities by non-Annex I Parties in connection with their national communications; and section 11.D reviews other areas. Some aspects of the Kyoto Protocol that are closely related to the topics discussed in this chapter are addressed in Box 11.2 (Kyoto flexibility mechanisms), Box 11.3 (LULUCF) and Box 11.4 (core elements of the Kyoto Protocol). Box 11.5 addresses the so-called Brazilian proposal for distributing emission targets on the basis of historical contributions to climate change.

11.A. Measures to mitigate climate change: all Parties

11.A.1. General policy aspects of mitigation

Article 3.3 stipulates that Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. In order to ensure global benefits at the least possible cost, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of GHGs and adaptation (see chapter 12) and comprise all economic sectors. In addition, they may be carried out cooperatively by interested Parties.

The Convention addresses the full range of GHGs with the exception of those which are already controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer (see chapter 4 on the Montreal Protocol and chapter 18 on relevant gases).

General commitments of Parties to mitigate climate change are included in Article 4.1 (for all Parties) and more specific commitments are in Article 4.2 (for Annex I Parties). The Convention draws attention to the different needs and

capacities of Parties in the implementation of the commitments contained in Article 4.1. The article is premised on the need to take into account Parties' "common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances". Article 4.2(a) also calls for differentiation among the Annex I Parties, stating that account should be taken of "the differences in these Parties' starting points and approaches, economic structures and resource bases, the need to maintain strong and sustainable economic growth, available technologies and other individual circumstances".

Article 4.1(b) calls on all Parties to "formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing **measures to mitigate climate change** by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol".

On **sinks and reservoirs**, Article 4.1(d) calls on Parties to "promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all greenhouse gases not controlled by the Montreal Protocol, including biomass, forests and oceans as well as other terrestrial, coastal and marine ecosystems".

Article 4.1(f) requires Parties to "take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions". It also calls on Parties to "employ appropriate methods, for example impact assessments, formulated and determined nationally", with a view to minimizing adverse effects that projects or measures undertaken in the context of mitigation could have "on the economy, on public health or on the quality of the environment".

Article 4.1(h) requires Parties to promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies.

Article 4.7 requires that to the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

11.A.2. Scientific, technical and socio-economic aspects of mitigation

Scientific, technical and socio-economic aspects of mitigating climate change are now discussed as a separate item on the SBSTA's agenda. During the consideration of the Third Assessment Report (TAR) of the IPCC by SBSTA 16 (June 2002), mitigation was one of three areas identified for regular consideration. Up to SBSTA 19 (December 2003), it was treated together with



“Scientific, technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change” (see chapter 12), as a sub-item of the consideration of the TAR. At that session, the SBSTA completed its consideration of the TAR. SBSTA 20 (June 2004) started to consider mitigation and adaptation as two separate new agenda items⁴². The work on these issues was also endorsed by COP 9 in 2003, which asked the SBSTA to report on it to COP 11, and to focus on exchanging information among Parties on practical ways of helping implement the Convention (decision 10/CP.9).

SBSTA 19 noted that relevant themes for consideration under the two new agenda items included: sustainable development, opportunities and solutions, and vulnerability and risk, and mandated workshops on each item during SBSTA 20. SBSTA 20 identified two topics for further consideration under mitigation:

- technology innovation, deployment and diffusion, including identification and removal of barriers; and
- practical opportunities and solutions that contribute to sustainable development.

SBSTA 21, SBSTA 22 and SBSTA 23 continued to consider these topics. SBSTA 23 asked the secretariat to organize workshops at its next sessions, on the following themes:

- agriculture, forestry and rural development (in-session, SBSTA 24 (May 2006));
- urban planning and development, including transportation (in-session, SBSTA 25 (November 2006));
- energy efficiency, including industry, and residential and commercial end-use (pre-session, SBSTA 26 (May 2007));
- power generation, including clean fossil fuels and renewable energy (pre-session, SBSTA 26);
- non-CO₂ emissions, including methane recovery and use (in-session, SBSTA 27 (December 2007)).

Aspects to be considered at each workshop include:

- currently available and emerging technologies, including small-scale ones, and the associated potential to reduce emissions; opportunities and best practices to promote, and to overcome barriers to, innovation, deployment, transfer and diffusion of these technologies, including through innovative financing;

⁴² Views submitted by Parties on these two areas can be found in FCCC/SBSTA/2003/MISC.2 <<http://unfccc.int/resource/docs/2003/sbsta/misc02.pdf>> (synthesized in FCCC/SBSTA/2003/2 <<http://unfccc.int/resource/docs/2003/sbsta/misc02.pdf>>), FCCC/SBSTA/2003/MISC.2.Add.1 <<http://unfccc.int/resource/docs/2003/sbsta/misc02a01.pdf>>, FCCC/SBSTA/2004/MISC.6 <<http://unfccc.int/resource/docs/2004/sbsta/misc06.pdf>> and FCCC/SBSTA/2004/MISC.6/Add.1 <<http://unfccc.int/resource/docs/2004/sbsta/misc06a01.pdf>>.



- international cooperative efforts to promote innovation, deployment, transfer and diffusion of technology, and opportunities to enhance such cooperation;
- socio-economic aspects of mitigation, such as costs and benefits, co-benefits, spillover effects and “win-win” practices that contribute to sustainable development;
- cross-cutting aspects and methods and tools for assessing mitigation opportunities.

Based on the outcomes of the workshops and views submitted by Parties, the SBSTA will take stock of its work on this issue at its twenty-seventh session and report to COP 13. Presentations and other information presented at the workshops organized until now can be found on the UNFCCC web site <http://unfccc.int/methods_and_science/mitigations/items/2681.php>.

Relevant COP decision:

Decision 10/CP.9: Scientific, technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change, and of mitigation

11.B. Measures to mitigate climate change: Annex I Parties

11.B.1. Mitigation and related communication commitments

Specific commitments by Annex I Parties to mitigate climate change are laid down in Article 4.2. According to Article 4.2(a), each Annex I Party “shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs”. The article further states that “the return by the end of the present decade [i.e. the 1990s] to earlier levels” of anthropogenic GHG emissions would contribute to modifying longer-term trends in these emissions consistent with the objective of the Convention, an undertaking in which Annex I Parties are called upon to take the lead.

In addition, Article 4.2(b) stipulates that Annex I Parties “shall communicate detailed information” on their policies and measures that aim to return their GHG emissions individually or jointly to their 1990 levels. Taken together, these provisions have been interpreted to add up to the non-legally binding aim of returning GHG emissions of Annex I Parties to their 1990 levels by the year 2000.

The information mentioned in Article 4.2(b) is to be communicated by the Party “within six months of the entry into force of the Convention” and “periodically thereafter” in the context of the national communications further defined by Article 12 (see chapter 18).

Communications have also to provide estimates of the effects which the policies and measures will have on anthropogenic GHG emissions by sources and removals by sinks. These communications are to be submitted “during the period referred to in Article 4, paragraph 2(a)” i.e. by the end of the 1990s. Subsequent guidance by the COP has provided for Parties submitting estimates for later years too (see chapter 18). The secretariat, in its last compilation and synthesis report of

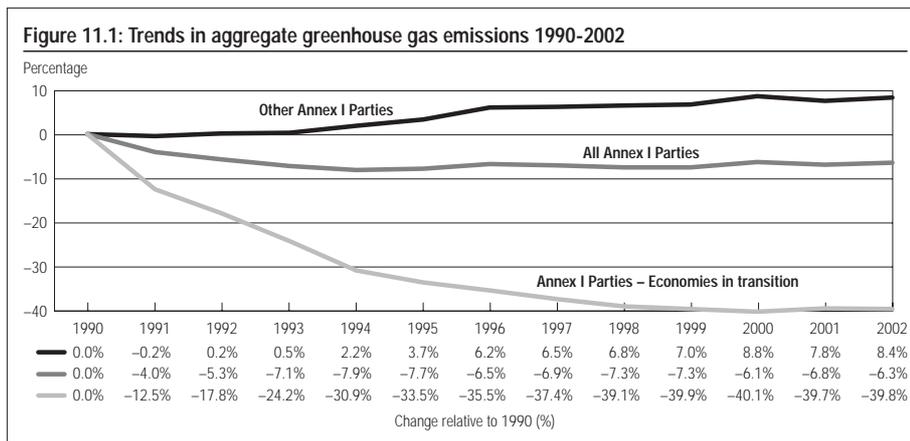


Annex I Parties' third national communications⁴³, noted that Parties had reported policies and measures which covered all the important sources of emissions much more comprehensively than previously. There was a clear indication of a shift towards implementing new climate-specific policies and measures, such as emissions trading, carbon taxes and green certificate trading. The greatest number of policies and measures reported were in the energy sector.

As noted in this report, the total aggregated GHG emissions of all reporting Annex I Parties had "decreased by about 3 per cent from 1990 to 2000". Thus Annex I Parties have jointly attained the aim of Article 4.2 of the Convention – to return their 2000 emissions to 1990 levels. Furthermore, in a subsequent publication⁴⁴, the sizeable emission reduction of developed countries, taken as a group, was confirmed. Compared to 1990 levels overall GHG emissions of these countries were down by 5.9 per cent in 2003. However, the extent to which Annex II Parties succeeded in reversing an increasing trend in GHG emissions varied widely⁴⁵.

According to Article 4.2(g), any Party not included in Annex I may at any time notify the Secretary-General of the United Nations, as the Depository of the Convention, that it intends to be bound by Article 4.2(a) and 4.2(b). Such notifications have been made by Croatia, the Czech Republic, Kazakhstan, Liechtenstein, Monaco, and Slovakia. With the exception of Kazakhstan, however, the notifications have lost their significance because the other countries have been included in Annex I (see chapter 9).

Article 4.2(d) states that the COP is to review the adequacy of Article 4.2(a) and (b) at its first session, as well as at further sessions. For more detail on this provision and its implementation, see section 11.B.6 below.



⁴³ FCCC/SBI/2003/7 <<http://unfccc.int/resource/docs/2003/sbi/07.pdf>>.

⁴⁴ Key GHG data, Greenhouse gas emissions data for 1990-2003 submitted to the United Nations Framework Convention on Climate Change, November 2005, <http://unfccc.int/resource/docs/publications/key_ghg.pdf>.

⁴⁵ FCCC/SBI/2003/7/Add.1, paragraph 189 <<http://unfccc.int/resource/docs/2003/sbi/07a01.pdf>>.

Article 4.6 calls on the COP to allow the **countries with economies in transition** (EITs; see chapter 3) “a certain degree of flexibility” in implementing their commitments under Article 4.2. This includes the historical level of GHG emissions chosen as a reference. The provision is intended to take account of the economic and political upheavals experienced by these countries in the late 1980s and early 1990s which led, among other effects, to unusual decreases in GHG emissions. Several EITs made use of the option for flexibility on the base year. Bulgaria and Hungary made declarations regarding Article 4.6 when they ratified the Convention, with Bulgaria choosing 1988 as base year and Hungary applying the average

Box 11.1: Major objectives of climate change policies of Annex I countries

Though the circumstance of Annex I countries may be different they generally have similar overall objectives of their policies on climate change.

Energy

- Economically efficient supply and use of energy
- Diversification of energy sources leading to enhanced security of supply
- Protection of the environment, in particular the management of air quality
- Energy sector reform to increase economic efficiency by introducing more private sector participation, more competition in supply and distribution, and increased consumer choice over energy suppliers
- Efficient use of resources, including energy resources, through green tax reform
- Climate change mitigation through emissions trading

Transport

- Sustainable development
- Air-quality management
- Congestion management
- Energy security

Industrial processes

- Reduction of gases emitted as by-products
- Improved efficiency
- Minimization of the use and emission of fluorinated gases

Agriculture

- Improved environmental performance such as preventing pollution of underground waters
- Greater sustainability through, among other things, improved food quality, rural development, organic farming and land-use planning

Land-use change and forestry

- Protection and sustainable management of forests
- Conservation of biodiversity, wildlife, soil and water
- Afforestation and reforestation to increase sink capacity

Waste

- Reducing the impact of waste on air, soil and underground waters
- Recycling and minimizing waste



of the 1985–1987 period. In addition, COP 2 approved modified base years for two other countries, Poland (1988) and Romania (1989)⁴⁶. In 1998, COP 4 approved 1986 as base year for Slovenia⁴⁷. In 2005, at the request of Croatia, COP 11 asked the SBI to consider the level of GHG emissions for the base year of Croatia and the exact nature of the flexibility allowed to that Party⁴⁸. All other Annex I Parties use 1990 as base year.

11.B.2. Activities implemented jointly in the pilot phase (AIJ)

Referring to the principle of cost-effectiveness, Article 3.3 of the Convention states that efforts to address climate change may be carried out cooperatively by interested Parties. Article 4.2(a) explains that Annex I Parties may implement mitigation policies and measures “jointly with other Parties and may assist other Parties in contributing to the achievement of the objective of the Convention” and, in particular, the objective of Article 4.2(a) to modify longer-term emission trends. Furthermore, Article 4.2(d) provides that the COP, at its first session, shall “take decisions regarding criteria for joint implementation”.

At its first session in 1995, the COP launched a “pilot phase” of AIJ (decision 5/CP.1). In this phase, Parties may, on a voluntary basis, implement projects that reduce GHG emissions, or enhance removals of GHGs through sinks, in the territories of other Parties. The reductions in emissions of these projects must exceed those which would have occurred otherwise. However, no credits (or emissions reduction units; see Box 11.2) may accrue to any Party for such reductions or removals. During the pilot phase AIJ may take place “among Annex I Parties and, on a voluntary basis, with non-Annex I Parties that so request it”. The aim is to gain experience through learning by doing, for example in establishing baselines and estimating the environmental benefits of a project.

Decision 5/CP.1 also makes clear that AIJ between Annex I Parties and non-Annex I Parties will not be considered as fulfilling current commitments of Annex I Parties under Article 4.2(b) (on limiting emissions), but could contribute to achieving the objective of the Convention and to fulfilling commitments of Annex II Parties under Article 4.5 (on technology transfer). Furthermore, AIJ “are supplemental, and should only be treated as a subsidiary means of achieving the objective of the Convention”. They do not modify the commitments of each Party. The financing of AIJ has to be additional to the financial obligations of Annex II Parties under the Convention (related to the financial mechanism), as well as to current official development assistance (ODA) flows.

Parties are encouraged to report on their AIJ under the pilot phase using a Uniform Reporting Format (URF). The latest version of the URF was adopted at COP 8 in 2002 (decision 20/CP.8), replacing the first URF, adopted at

⁴⁶ Decision 9/CP.2.

⁴⁷ Decision 11/CP.4.

⁴⁸ Decision 10/CP.11.



COP 3 in 1997 (decision 10/CP.3)⁴⁹. Most Parties have identified a designated national authority to act as a primary national contact on AIJ. The COP regularly reviews the progress of AIJ under the pilot phase drawing on reports from Parties, and decides whether or not it should be continued. A first “comprehensive review”, based on decision 5/CP.1, was completed at COP 5 in 1999 and led to the decision to continue the pilot phase beyond 2000 (decision 13/CP.5). Parties agreed that, during the continuation of the pilot phase, the issue of geographical imbalance should be addressed, in particular the lack of projects in Africa and SIDS. Decisions to further continue the pilot phase were adopted by COP 7 (decision 8/CP.7), COP 8 (decision 14/CP.8) and COP 10 (decision 10/CP.10).

The latest report on AIJ (2002)⁵⁰ includes more than 150 projects, engaging around one quarter of Parties to the Convention, either as investors or as hosts. Interest in AIJ has steadily grown, especially since the adoption of the Kyoto Protocol. There has been an almost 50 per cent increase in the number of projects since 1997 – possibly with the expectation that these projects may eventually operate under the clean development mechanism or joint implementation introduced under the Kyoto Protocol (see Box 11.2). Non-Annex I Parties make up 70 per cent of host Parties and most projects are concentrated in EITs, although the balance is gradually shifting towards developing countries. Most AIJ projects are in renewable energy and energy efficiency, although the largest projects involve forest conservation, reforestation or restoration. The seventh synthesis report on AIJ will be issued in 2006.

Relevant COP decisions:

- Decision 5/CP.1: Activities implemented jointly under the pilot phase
- Decision 8/CP.2: Activities implemented jointly under the pilot phase
- Decision 10/CP.3: Activities implemented jointly under the pilot phase
- Decision 6/CP.4: Activities implemented jointly under the pilot phase
- Decision 13/CP.5: Activities implemented jointly under the pilot phase
- Decision 8/CP.7: Activities implemented jointly under the pilot phase (decisions 6/CP.4 and 13/CP.5)
- Decision 14/CP.8: Activities implemented jointly under the pilot phase
- Decision 20/CP.8: Revised uniform reporting format for activities implemented jointly under the pilot phase, and Annex: Activities implemented jointly under the pilot phase: revised Uniform Reporting Format (URF 01)
- Decision 10/CP.10: Continuation of activities implemented jointly under the pilot phase

11.B.3. Cooperation and coordination of policies and measures

While the Convention requires Annex I Parties to adopt national policies and measures to mitigate climate change (Article 4.2(a)) and to report regularly on

⁴⁹ This former URF is included in the session report of SBSTA 5: FCCC/SBSTA/1997/4, Annexes III (for AIJ) and IV (for national programmes on AIJ) <<http://unfccc.int/resource/docs/1997/sbsta/04.pdf>>.

⁵⁰ Sixth synthesis report on activities implemented jointly under the pilot phase, FCCC/SBSTA/2002/8 <<http://unfccc.int/resource/docs/2002/sbsta/08.pdf>>. COP 10 postponed the preparation of the seventh synthesis report from 2004 until 2006, as Parties had submitted no further information on AIJ.



them (Article 4.2(b)), it does not prescribe particular policies and measures that Annex I Parties should apply. This is left to each Party to determine in accordance with its national circumstances. Article 4.2(e)(i), however, calls on Annex I Parties to “coordinate as appropriate with other such Parties, relevant economic and administrative instruments developed to achieve the objective of the Convention”. Furthermore, Article 7.2(c) provides that the COP is to “facilitate, at the request of two or more Parties, the coordination of measures adopted by them to address climate change and its effects”. No such request has yet been made, and the coordination of measures has not been pursued at the COP level.

COP 4 initiated a process of considering “good practices” in policies and measures. This was also fostered by the Kyoto Protocol which, in its Article 2.1, enumerates specific policies and measures and calls on Parties to share their experience and exchange information on them to increase their effectiveness. As part of the Buenos Aires Plan of Action, decision 8/CP.4 asked the secretariat to prepare a report on best practices in policies and measures, based on Annex I Party national communications and their reviews and additional information submitted by Parties, as well as any other relevant information; and to organize a workshop to assess the best practices in policies and measures on the basis of the conclusions of SBSTA 11. The issue was subsequently often considered under the heading of “good practices” rather than “best practices”, as participants in the workshop had found that the concept of “good practice” was more relevant in the international context, while “best practice” could be to a large extent specific to a particular country⁵¹.

Within the Marrakesh Accords, decision 13/CP.7 stipulated that cooperation among Annex I Parties to increase the individual and combined effectiveness of policies and measures should come under the guidance of the SBSTA. This work should contribute to the improvement of transparency, effectiveness and comparability of policies and measures. Transparency in reporting on policies and measures in the national communications of Annex I Parties should be enhanced through criteria and quantitative parameters, as appropriate. Furthermore, the work should consider issues of methodology, attribution, and national circumstances. It should also encompass sharing information on how adverse effects of policies and measures – including on developing countries – could be minimized, taking into account information provided by non-Annex I Parties. Decision 13/CP.7 also asked the secretariat to make available the information on policies and measures reported in the third national communications by Annex I Parties. The SBSTA continued its work on policies and measures based on this information and on submissions by Parties⁵². During SBSTA 22 (May 2005), Parties exchanged information and views on the implementation of policies and measures at a round-table discussion.

⁵¹ FCCC/SBSTA/2000/2, paragraph 20 <<http://unfccc.int/resource/docs/2000/sbsta/02.pdf>>. See also FCCC/SBSTA/2001/INF5 for the report on a further workshop mandated by COP 6 part I <<http://unfccc.int/resource/docs/2001/sbsta/inf05.pdf>>.

⁵² FCCC/SBSTA/2002/MISC.7 <<http://unfccc.int/resource/docs/2002/sbsta/misc07.pdf>> and FCCC/SBSTA/2002/MISC.19 <<http://unfccc.int/resource/docs/2002/sbsta/misc09.pdf>>.



SBSTA 22 also considered options for using web-based approaches to sharing experience⁵³ and decided to consider next steps at SBSTA 24 (May 2006).

Relevant COP decisions:

- Decision 8/CP.4: Preparations for the first session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol: matters related to decision 1/CP.3, paragraph 6
- Decision 13/CP.7: Good practices in policies and measures among Parties included in Annex I to the Convention

11.B.4. Review of activities that lead to increased levels of GHG emissions

Article 4.2 not only addresses policies and measures that contribute to the objective of the Convention, but also practices that may produce adverse effects. Article 4.2(e)(ii) asks each Annex I Party to “identify and periodically review its own policies and practices which encourage activities that lead to greater levels of anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol than would otherwise occur”. This is reflected in the guidelines for national communications of Annex I Parties, which stipulate that Parties should report on action taken to implement commitments under Article 4.2(e)(ii) of the Convention, and also provide the rationale for such actions in the context of their national communications⁵⁴. For example, the European Union, in its third communication, mentions the intention to phase out all subsidies for fossil fuel production and consumption by 2010, and to undertake an inventory and review of energy subsidies in the Member States, considering their compatibility with climate change objectives.

11.B.5. Enhancement of sinks and reservoirs of GHGs (Land use, land-use change and forestry)

In addition to the reduction of GHG emissions at the source, the Convention refers to the enhancement of sinks and reservoirs of GHGs (e.g. in Articles 4.1(b), (d) and 4.2(a)) as an option for mitigating climate change. During the evolution of the Convention process, the term “Land use, land-use change and forestry (LULUCF)” was used to refer to land-use categories that could either increase the removals of GHGs from the atmosphere (e.g. by planting trees or managing forests) or reduce emissions (e.g. by curbing deforestation). LULUCF categories can be a relatively cost-effective way of combating climate change; however, they also have their drawbacks. It may often be difficult to estimate GHG removals and emissions from LULUCF. In addition, GHGs may be unintentionally released if a sink is damaged or destroyed, for example through a forest fire or disease.

Annex I Parties reported in their third national communications a range of policies and measures in the LUCF sector. These focused on afforestation,

⁵³ As a background document, see FCCC/SBSTA/2004/INF.10
<<http://unfccc.int/resource/docs/2004/sbsta/inf10.pdf>>.

⁵⁴ FCCC/CP/1997/7, paragraph 16, <<http://unfccc.int/resource/docs/cop3/07.pdf>>.



reforestation and forest management, and forest programmes with wider policy objectives than mitigating climate change. There was less emphasis on the role of other LUCF activities such as cropland and grazing management, revegetation and the role of soils in carbon sequestration. Parties reported a range of research-based policies and measures including some that have the potential to improve understanding of carbon dynamics and others tackling fire and pest control. The policies and measures in the LUCF sector were implemented using a range of instruments, with regulatory, fiscal and economic instruments being the most common⁵⁵.

The emergence of issues related to LULUCF has stimulated cooperation among many organizations and institutions with forest and agriculture experience. As a result, the UNFCCC secretariat has been collaborating with such bodies as the United Nations Forum on Forests (UNFF), the Food and Agriculture Organization of the United Nations (FAO) and the Collaborative Partnership on Forests (CPF).

Relevant COP decision:

Decision 14/CP.11: Tables of the common reporting format for land use, land-use change and forestry

Box 11.2: LULUCF under the Kyoto Protocol

According to the Kyoto Protocol's Article 3.3, net changes in GHG emissions and removals from certain land-use change and forestry activities may be used to meet Annex I Parties' commitments under the Protocol. The eligible activities are **afforestation, reforestation and deforestation**. If, taken together, they result in net removals, the corresponding amount will be added to the amount of GHGs a Party may emit (its assigned amount). Conversely, if they result in net emissions, the corresponding amount will be subtracted. Removals generate so-called **removal units (RMUs)** that an Annex I Party can use to help meet its emissions target: emissions must be offset by greater emission cuts or removals elsewhere.

In accordance with Article 3.4 of the Protocol, the Marrakesh Accords (COP 7, 2001) designated a further four eligible activities in the LULUCF sector: **forest management, cropland management, grazing land management, and revegetation**. Parties may elect which of these additional activities they will use to help meet their emissions targets, and the choice is then fixed for the first commitment period.

In order to address potential problems associated with LULUCF (such as uncertainties in accounting, or re-release of GHGs) and to ensure credit would not be given for GHG removals that would have occurred anyway, the Marrakesh Accords determined a number of further **principles** and **rules**.

The **principles** underscore, for example, the need for sound science and consistent methodologies and the importance of conserving biodiversity. Naturally occurring removals should be excluded from the system. Any re-release of GHGs from sinks due to land use, land-use change and forestry activities (e.g. forest fires) must be promptly accounted for.

Rules for the accounting of emissions and removals in the first commitment period (2008–2012) are set out in decision 13/CMP.1 and in decision 16/CMP.1. They also limit the LULUCF activities eligible under the CDM to afforestation and reforestation.

⁵⁵ See FCCC/SBI/2007/Add.1 & 2.

11.B.6. Review of the adequacy of Article 4.2(a) and 4.2(b)

The issue of the adequacy of Article 4.2(a) and (b) of the Convention arises from Article 4.2(d), which was included to address the concerns of some countries that the Annex I Parties' commitment to return their GHG emissions to 1990 levels by 2000 was not sufficient. It provides that the COP shall, at its first session, review the adequacy of Article 4.2(a) and (b), taking into account "the best available scientific information and assessment on climate change and its impacts, as well as relevant technical, social and economic information. Based on this review, the Conference of the Parties shall take appropriate action, which may include the adoption of amendments to the commitments in subparagraphs (a) and (b) ... A second review of subparagraphs (a) and (b) shall take place not later than 31 December 1998, and thereafter at regular intervals determined by the Conference of the Parties, until the objective of the Convention is met". The assessment reports by the IPCC in particular (see Introduction, chapter 1 and chapter 4) have provided information from which Parties have concluded that commitments need to be further strengthened.

11.B.6.a. First review of adequacy

The first review was undertaken at COP 1 in 1995 in accordance with Article 4.2(d). The COP concluded, in decision 1/CP.1 known as the "Berlin Mandate", that Article 4.2(a) and (b) were not adequate and launched the negotiations that led to the adoption of the Kyoto Protocol.

The Berlin Mandate began a process to enable the COP "to take appropriate action for the period beyond 2000, including the strengthening of the commitments [of Annex I Parties], through the adoption of a protocol or another legal instrument". The decision reaffirmed the principle of common but differentiated responsibilities. It recalled that the largest share of historical and current global GHG emissions had originated in developed countries, and acknowledged the needs of developing countries to achieve sustained economic growth and to eradicate poverty. The decision therefore provided that the commitments of the developed Parties included in Annex I should be strengthened, while no new commitments should be introduced for non-Annex I Parties. It provided, furthermore, that for Annex I Parties, the process should include drawing up policies and measures and setting quantified objectives for GHG limitation and reduction within specified time frames. The process was to cover all GHGs not controlled by the Montreal Protocol, their emissions by sources and removals by sinks, and all relevant sectors. For non-Annex I Parties, the mandate was to reaffirm existing commitments in Article 4.1 (valid for all Parties), and to continue working on their implementation.

The decision extended to the formation of an open-ended ad hoc group to implement this process, which became known as the Ad hoc Group on the Berlin Mandate (AGBM; see chapter 2).

Of the many submissions made during the AGBM negotiation process on mitigation objectives and their distribution among Parties, a proposal by Brazil on the distribution of emission targets still has a certain relevance. Its scientific



and methodological aspects continue to be discussed on the SBSTA agenda (see Box 11.5).

Based on the work of the eight sessions of the AGBM, the Kyoto Protocol to the Convention was adopted at COP 3 on 11 December 1997. Some core elements of the Protocol are summarized in Box 11.4. Decision 1/CP.3, by which the Kyoto Protocol was adopted, also launched a process for the COP to consider outstanding issues related to the Protocol's implementation, such as more specific rules on the Kyoto mechanisms (Box 11.2) and on LULUCF (Box 11.3).

Box 11.3: Core elements of the Kyoto Protocol

Annex I Parties that are also Parties to the Protocol agreed to be legally bound by specific commitments on GHG limitation or reduction. The reduction, or limitation, objectives of all of these Parties are listed in Annex B of the Protocol. The reductions envisaged are calculated to add up to a total of at least 5 per cent below baseline levels for the group as a whole, the normal base year being 1990 (with provisions for flexibility for EITs and certain types of gases). The limitation and reduction objectives are not targeted at a single year, but are calculated as the mean of reductions logged over a five-year **commitment period** from 2008 to 2012. The maximum amount of carbon dioxide emissions units (or the equivalent of such units in the case of other GHGs) that a Party may emit during the commitment period, if it is to fully comply with its emissions target, is referred to as its **assigned amount**.

The Protocol provides for a **comprehensive inclusion of GHGs and sources**. For GHGs, rather than providing values for individual gases, reduction/limitation objectives refer to a basket of four gases (carbon dioxide, methane, nitrous oxide, sulphur hexafluoride) and two groups of gases (hydrofluorocarbons and perfluorocarbons), listed in Annex A of the Protocol. Annex A also contains a list of sectors and source categories. Removals of GHGs by sinks can be counted towards a country's commitments, subject to certain conditions (see Box 11.3).

Although each Party listed in Annex B has its individual reduction or limitation commitment, the Protocol contains a range of provisions for **flexibility**. Parties may form a group whose emissions are counted together rather than individually for each Party, an approach chosen by the European Union. Furthermore, the Protocol introduces three **flexibility mechanisms** allowing countries to achieve a proportion of their commitments by earning credits for GHG emissions avoided or GHG removals achieved in other countries (see Box 11.2). The Protocol also requires the COP/MOP to approve procedures and mechanisms relating to compliance at its first session (see Box 2.3 in chapter 2).

The Kyoto Protocol entered into force on 16 February 2005. It includes provisions for reviewing commitments so that they can be strengthened over time. It states that negotiations on targets for the second commitment period are to start in 2005, by which time Annex I Parties which are Parties to the Protocol should have made demonstrable progress in meeting their commitments. Accordingly, COP/MOP 1 decided to initiate a process to consider further commitments by Annex I Parties for the period beyond 2012. An ad hoc working group of Parties to the Protocol was established to conduct the work and report at each session of the COP/MOP (decision1/CMP.1). The group was requested to complete its task so as to avoid any gap between the first and second commitment period (see chapter 2).

Relevant COP decisions:

- Decision 1/CP.1: The Berlin Mandate: Review of the adequacy of Article 4, paragraph 2(a) and (b), of the Convention, including proposals related to a protocol and decisions on follow-up
- Decision 1/CP.3: Adoption of the Kyoto Protocol to the United Nations Framework Convention on Climate Change

11.B.6.b. Second review of adequacy

As Article 4.2(d) provides for the second review of the adequacy of Article 4.2(a) and (b) to take place no later than 31 December 1998, this issue was included on the agenda of COP 4 (November 1998). Despite intensive consultations, it proved impossible to reach any agreement on this matter. Parties agreed that the existing commitments of Annex I Parties were not adequate and that the Kyoto Protocol was an important step towards achieving the ultimate objective of the Convention. However, they failed to reconcile their differences on how to conduct the review and on what steps needed to be taken. This was mainly due to sharply differing views between Annex I and non-Annex I Parties over the scope of the review (i.e. whether it encompassed the possibility of discussing the future role of developing countries).

In line with rule 16 of the draft rules of procedure (see chapter 2)⁵⁶, the item was tabled again on the provisional agenda for COP 5 in 1999. At COP 5, the Group of 77 and China proposed an amendment to the wording of this item as follows: "Review of the adequacy of **implementation** of Article 4.2(a) and (b)"⁵⁷. There was no agreement on that proposal, and the item was held in abeyance. During the session, the President consulted with Parties but without achieving consensus.

Since COP 5, the item has been included on the provisional agenda of each COP with a footnote reflecting the amendment proposed by the Group of 77 and China. Given the continuing lack of agreement, the item has been held in abeyance at every COP, although successive Presidents have consulted with Parties on possible ways of achieving consensus. Each President has included information on the outcome of the consultations in their report to the COP.

SBSTA 17 (October/November 2002) invited the scientific community, including international assessment programmes, to continue research on the scientific and methodological aspects of the proposal and to make results available to Parties. It also decided to review progress at SBSTA 23 in November 2005.

A third expert meeting on the Brazilian proposal (September 2003 in Berlin, Germany) was organized by the governments of Brazil, the UK, and Germany, and a side-event on the issue took place at SBSTA 20 in June 2004. The SBSTA agreed to return to the consideration of scientific and methodological aspects of the proposal at its twenty-fourth session (May 2006).

⁵⁶ Rule 16 provides that "any item on the agenda of an ordinary session, consideration of which has not been completed at the session, shall be included automatically in the agenda of the next ordinary session, unless otherwise decided by the Conference of the Parties".

⁵⁷ Bold type not in the original.

Box 11.4: Scientific and methodological assessment of contributions to climate change: the Brazilian proposal

As part of the negotiations on the Kyoto Protocol, the delegation of Brazil proposed, at AGBM 7 (July–August 1997), setting differentiated emission reduction targets for Parties according to the impact of their cumulative historical emissions, starting from 1840, on the global-average surface temperature⁵⁸. The proposal suggested that reductions towards an overall emission ceiling for all Annex I Parties (30 per cent below 1990 levels by the year 2020) were to be shared among individual Annex I Parties proportional to their relative share of responsibility for climate change. In order to determine this share, the proposal suggested using an agreed simple climate model.

While some aspects of the proposal have been overtaken by the outcome of the Kyoto Protocol negotiations, there is continued interest in its scientific and methodological aspects. They are centred on the question of how, if at all, responsibilities for a global rise in temperature can be calculated from historical emissions. COP 3 referred the scientific and methodological aspects of the proposal to the SBSTA⁵⁹.

The Brazilian government organized a workshop on its proposal in the margins of COP 4 in 1998 and an expert meeting in its own country in 1999. It presented revised versions of its proposal in 1998 and again in 2000. SBSTA 11 (October/November 1999) asked the secretariat to coordinate a review of the revised proposal by experts. It also invited Parties to submit information.

SBSTA 14 (July 2001) took note of the progress achieved on the issue, including the conclusions of an expert meeting held in May 2001⁶⁰, and encouraged Parties to pursue and support the ongoing research effort. It also asked the secretariat to continue its work on the proposal.

In March 2002, the secretariat encouraged research institutions active in the field of climate change modelling to share information to provide, as a first step, new and comparable results on contributions to climate change. The secretariat organized a second UNFCCC expert meeting (September 2002 in Bracknell, UK) to assess the preliminary results provided by the research institutions, to encourage cooperation between developing and developed country scientists and to identify next steps, including future analysis⁶¹.

11.C. Measures to mitigate climate change: non-Annex I Parties

According to the guidelines for the preparation of national communications from non-Annex I Parties adopted at COP 8 (decision 17/CP.8 and Annex; see chapter 18), each Party is to provide the COP with a general description of steps taken or envisaged towards “formulating, implementing, publishing and regularly updating national and, where appropriate, regional programmes containing measures to mitigate climate change”. More specifically, “based on national circumstances, non-Annex I Parties are encouraged to provide, to the extent their capacities allow, information on programmes and measures implemented or planned which contribute to mitigating climate change ..., including, as appropriate, relevant information by key sectors on methodologies, scenarios, results, measures and institutional arrangements”. Parties have indeed reported a wide range of measures in their initial communications with varied scope and level of detail. Most measures relate to the energy, agriculture, LUCF and waste management sectors⁶².

⁵⁸ Contained in FCCC/AGBM/1997/MISC.1/Add.3

<<http://unfccc.int/resource/docs/1997/agbm/misc01a03.pdf>>.

⁵⁹ FCCC/CP/1997/7/Add.1, section III.3 <<http://unfccc.int/resource/docs/cop3/07a01.pdf>>.

⁶⁰ Contained in FCCC/SBSTA/2001/INF.2 <<http://unfccc.int/resource/docs/2001/sbsta/inf02.pdf>>.

⁶¹ The report of the expert meeting is contained in FCCC/SBSTA/2002/INF.14

<<http://unfccc.int/resource/docs/2002/sbsta/inf14.pdf>>.

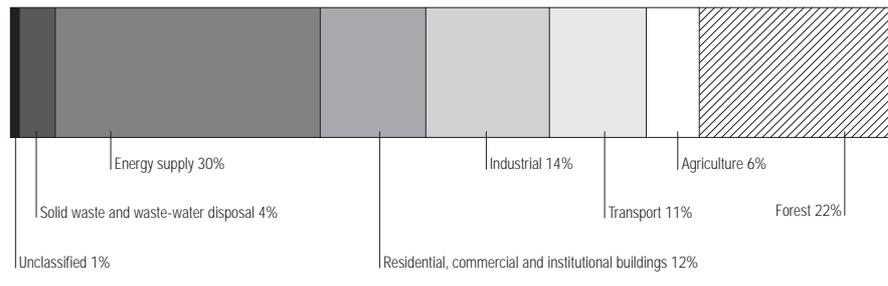


COP 11 (November–December 2005) introduced a new agenda item on reducing emissions from deforestation in developing countries. Parties recognized the need to address this issue as part of mitigation. Topics under consideration include scientific, technical and methodological issues. Parties will also exchange relevant information and experiences, including policy approaches and positive incentives. SBSTA 24 (May 2006) took up this item and will report on it at its twenty-seventh session, drawing on submissions by Parties and accredited observers.

According to the sixth compilation and synthesis of initial national communications from non-Annex I Parties⁶³, sequestration of carbon dioxide emissions by the LUCF sector in most non-Annex I Parties offset the GHG emissions originating from this sector. Roughly half of the reporting Parties also identified measures to limit emissions and enhance removals by sinks in the LUCF sector.

According to Article 12.4 of the Convention, developing country Parties may also propose, in their national communications, mitigation projects as candidates for financing. These could include specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, together with, if possible, estimates of removals of GHGs and an estimate of the consequent benefits. Many Parties have submitted such project proposals in their national communications. The secretariat has developed a database for them and, following decision 12/CP.4, compiles and makes available to Parties a list of them. Some of the projects have already been implemented with funding from the Global Environment Facility (GEF; see chapter 13) or from bilateral and other sources. As of March 2005, the list contained 469 project concepts and profiles proposed for financing⁶⁴. SBI 23

Figure 11.2: Distribution of project proposals by sector in developing countries



⁶² See FCCC/SBI/2005/18/Add.3 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a03.pdf>> and FCCC/SBI/2004/INF.13

⁶³ See FCCC/SBI/2005/18/Add.3

⁶⁴ FCCC/SBI/2005/INF.2 <<http://unfccc.int/resource/docs/2005/sbi/eng/inf02.pdf>>. For a more comprehensive list also including proposals already implemented, approved for funding, or planned for implementation, as well as prioritized areas/activities for mitigation or mitigation options, see FCCC/SBI/2004/INF.13 <<http://unfccc.int/resource/docs/2004/sbi/inf13.pdf>>.

Box 11.5: Measures to combat climate change in non-Annex I countries

Non-Annex Parties have reported the following measures that combat climate change in their national communications:

Energy supply

- improving energy efficiency and conservation;
- increasing transformation efficiency;
- modernizing thermoelectric utilities;
- reducing losses in transmission and distribution;
- developing plans to promote rural electrification and use of renewable energy sources.

Energy demand:

- promoting information in the transport, residential, commercial and industrial subsectors.

Agriculture:

- reducing methane emissions in rice cultivation through improved farm management practices;
- changing traditional farm practices;
- reducing areas under cultivation;
- shifting to shorter-duration rice varieties;
- rotating crops;
- diversifying and intensifying crops;
- increasing areas under directly seeded rice;
- providing training and dissemination of information on mitigating methane emissions from rice paddies;
- improving water management through soil aeration and periodic drainage of paddy fields;
- adopting intermittent irrigation systems;
- using chemical compounds to inhibit the production of methane;
- improving cattle management practices;
- optimizing livestock populations;
- improving livestock production through diet;
- using nutrient supplement urea-molasses-mineral blocks;

- supplementing poor quality roughage with legumes and/or low-cost agricultural by-products;
- expanding pasture and forage conservation for dry-season feeding;
- improving collection, use and storage of organic waste;
- using animal waste for energy production.

Land-use change and forestry:

- conserving existing forest cover;
- developing commercial plantations, agroforestry;
- preventing and controlling forest fires;
- controlling diseases and pests;
- controlling acid rain damage;
- creating woodland, low-impact logging;
- improving timber utilization;
- converting low productivity lands into grasslands and rangelands.

Waste management:

- minimizing waste at the production, distribution, consumption and disposal stages;
- recycling waste;
- improving organic waste collection, utilization and storage systems;
- improving waste-water treatment;
- using waste for energy production;
- incinerating waste;
- regulating to control urban industrial pollution.

asked the Consultative Group of Experts (CGE) to make recommendations on ways of improving the reporting of projects identified in national communications from non-Annex I Parties in accordance with Article 12.4 of the Convention. It also asked the CGE to report to, and advise, the SBI, at its twenty-sixth session (May 2007), on ways of improving access to financial and technical support for such projects. Furthermore, in its decision 5/CP.11, the COP reiterated its request to the GEF to assist non-Annex I Parties in formulating and developing project proposals identified in their national communications, when Parties are formulating their national programmes to address climate change issues, and to report on it to the COP.

Relevant COP decisions:

- Decision 12/CP.4: Initial national communications from Parties not included in Annex I to the Convention
- Decision 17/CP.8: Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, part I: UNFCCC reporting guidelines on annual inventories.
- Decision 5/CP.11: Additional guidance to an operating entity of the financial mechanism

11.D. Other areas of relevance for mitigation

Education, training and public awareness: the New Delhi work programme on Article 6 of the Convention recognizes the importance of Article 6 in engaging all in developing and implementing policies on climate change, consistent with sustainable development goals. Under the programme, Parties are called upon to inform the public about causes of climate change and sources of GHG emissions, as well as actions that can be taken at all levels to address climate change (see chapter 16).

The frameworks for **capacity-building** in developing countries and in EITs adopted at COP 7 (decisions 2/CP.7 and 3/CP.7; see chapter 17) include issues around GHG inventories, managing emission databases, and systems for collecting, managing and using activity data and emission factors. They also include assessments for implementing mitigation options. The technical paper⁶⁵ investigating the range and effectiveness of these activities in developing countries confirms that GHG emissions inventories is one of the areas where the need for capacity-building is high. Parties are also assisted by the web-based technology information clearing house TT:CLEAR that provides information on methods, models, and tools to assess mitigation and adaptation options and strategies.

Relevant COP decisions:

- Decision 2/CP.7: Capacity-building in developing countries (non-Annex I Parties)
- Decision 3/CP.7: Capacity-building in countries with economies in transition

⁶⁵ *The range and effectiveness of capacity-building in developing countries relating to decision 2/CP.7*, FCCC/TP/2004/1 <<http://unfccc.int/resource/docs/tp/tp0401.pdf>>.

Adapting to climate change

Adapting to the adverse effects of climate change is, along with mitigation, a major area of action for Parties under the Convention. The world is already experiencing changes in mean temperature, shifts in the seasons, and an increasing frequency of extreme weather events. These are set to continue, for the global climate system has great inertia. Adaptation is therefore essential.

This chapter describes the main provisions of the Convention that address adaptation (section 12.A) and the work related to adaptation that is being done under various agenda items under the Convention (section 12.B).

12.A. Relevant provisions of the Convention

The Convention refers to adaptation in several articles. First of all, the ultimate objective of the Convention is to stabilize “greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level 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” (Article 2).

In their commitments under Article 4.1(b) of the Convention, all Parties are to “formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to ... facilitate adequate adaptation to climate change”. In the same way as for all the provisions of Article 4.1, this is subject to “common but differentiated responsibilities and specific national and regional development priorities, objectives and circumstances” of all Parties.

Article 4.1(e) calls on Parties to “cooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas, particularly in Africa, affected by drought and desertification, as well as floods”.

Article 4.1(f) requires Parties to “take climate change considerations into account, to the extent feasible, in their relevant social, economic and environmental policies and actions”. It also calls on Parties to “employ appropriate methods, for example impact assessments, formulated and determined nationally”, with a view to minimizing adverse effects that adaptation projects or measures could have on the economy, on public health or on the quality of the environment.

Article 4.4 requires Annex II Parties to “assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects”.

Article 4.8 of the Convention calls on Parties to give full consideration, in implementing their commitments, to “what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country

Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures”. It also lists categories of countries that may be particularly affected⁶⁶.

Article 4.9 further requires Parties “to take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology”.

12.B. Work related to adaptation under the Convention

Adaptation received less attention than mitigation in the early years, as Parties requested more certainty on impacts of, and vulnerability to, climate change before agreeing on concrete adaptation measures. With the publication of the IPCC Third Assessment Report, (see Box 12.1 for findings and definitions) adaptation gained more momentum and Parties agreed at COP 7 on a process to address the adverse effects of climate change and on establishing three new special funds (see chapter 13).

The importance of adaptation was reaffirmed in the *Delhi Ministerial Declaration on Climate Change and Sustainable Development* (decision 1/CP.8). The Declaration notes, for example, that “adaptation to the adverse effects of climate change is of high priority for all countries. Developing countries are particularly vulnerable, especially the least developed countries (LDCs) and Small Island Developing States (SIDS). Adaptation requires urgent attention and action on the part of all countries. Effective and result-based measures should be supported for the development of approaches at all levels on vulnerability and adaptation, as well as capacity-building for the integration of adaptation concerns into sustainable development strategies”.

Issues related to adaptation have been included in a number of areas of work under the Convention. In addition to the items on the SBI and SBSTA agendas that specifically address vulnerability and adaptation, other areas include providing financial resources (see chapter 13), transferring technology (see chapter 14), improving research and systematic observation (see chapter 15), increasing education, training and public awareness (see chapter 16), building capacity (see chapter 17) and preparing national communications (see chapter 18).

Activities relating to adaptation focus on:

1. collecting, compiling, synthesizing and disseminating information on effects, vulnerability and adaptation, including information on methodologies, technologies and activities reported in national communications and national adaptation programmes of action (NAPAs);

⁶⁶ Small island countries; countries with low-lying coastal areas; countries with arid and semi-arid areas, forested areas and areas liable to forest decay; countries with areas prone to natural disasters; countries with areas liable to drought and desertification; countries with areas of high urban atmospheric pollution; countries with areas with fragile ecosystems, including mountainous ecosystems; countries whose economies are highly dependent on income generated from the production, processing and export, and/or on the consumption of fossil fuels and associated energy-intensive products; and land-locked and transit countries.

2. facilitating support for capacity-building and enabling activities;
3. developing mechanisms to disseminate information and increase public awareness – including clearing houses, information systems and workshops;
4. facilitating the exchange of information and sharing experiences and views among Parties on practical ways of helping implement the Convention;
5. liaising/cooperating with international and other United Nations organizations.
6. implementing concrete adaptation actions.

The following sections of this chapter highlight aspects of these activities.

Box 12.1: Adapting to the adverse effects of climate change⁶⁷

According to the IPCC, the most significant adverse effects of climate change include:

- a general reduction in potential crop yields in most tropical and sub-tropical regions – for most projected increases in temperature;
- a general reduction in potential crop yields in most regions in mid-latitudes, with some variations, for increases in annual average temperatures of more than a few degrees Celsius;
- even less water in many water-scarce regions, particularly in the sub-tropics;
- greater exposure to heat stress, vector-borne diseases such as malaria and water-borne diseases such as cholera;
- increased risk of flooding for human settlements because of heavy precipitation and sea-level rises – tens of millions of people will be affected;
- increased demand for energy for space cooling because of higher summer temperatures.

The **vulnerability** of human populations and natural systems to climate change differs substantially across regions and across populations within regions.

Natural systems are vulnerable to climate change, and some will be irreversibly damaged. Those particularly at risk include glaciers, coral reefs and atolls, mangroves, boreal and tropical forests, polar and alpine ecosystems, prairie wetlands, and remnant native grasslands.

Human systems too are sensitive to climate change, and those vulnerable include: water resources; agriculture and food security; forestry; coastal zones and fisheries; settlements; energy and industry; insurance and other financial services; and health.

Adaptation is defined by the IPCC as the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects that moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory and reactive adaptation, private and public adaptation, and autonomous and planned adaptation.

Adaptation policy is defined by the IPCC as action taken by governments including legislation, regulations and incentives to mandate or facilitate changes in socio-economic systems aimed at reducing vulnerability to climate change, including climate variability and extremes. Changes can be made in practices, processes, or structures of systems in response to projected or actual changes in climate.

⁶⁷ Information from *The first Ten Years*, UNFCCC 2004, p.68, based on the IPCC Third Assessment Report (TAR) <http://www.grida.no/climate/ipcc_tar/>.

12.B.1. Addressing vulnerability to the adverse effects of climate change (Article 4.8)

How to address the particular vulnerability of developing countries first appeared as a separate agenda item at COP 3 in 1997. After consideration, Parties, by decision 3/CP.3, asked the SBI to launch a process to identify actions necessary to meet the needs of developing countries specified in Article 4.8 and 4.9. At COP 4 (November 1998), Parties adopted a work programme on this issue (decision 5/CP.4 and Annex) as part of the Buenos Aires Plan of Action. In decision 5/CP.4, the COP noted that gaps in information on the adverse effects of climate change and their assessment should be filled. The specific needs and concerns of developing countries should be identified, for instance, on the basis of their national communications. The process of implementing Article 4.8 and 4.9 was further outlined at COP 5 (decision 12/CP.5) and involved, inter alia, a number of workshops on this issue⁶⁸.

At COP 7, the process initiated at COP 3 resulted in an agreement as part of the **Marrakesh Accords**. It included a decision on implementing Article 4.8 and 4.9 (decision 5/CP.7) as well as the establishment of three new funds: the Special Climate Change Fund (SCCF), the Least Developed Countries Fund (LDCF) and the Adaptation Fund (see chapter 13).

To address the adverse effects of climate change, decision 5/CP.7 provided a list of activities in the areas of information and methodologies as well as vulnerability and adaptation, to be funded by the GEF Trust Fund, the SCCF and the Adaptation Fund as well as other sources, which includes:

- collecting data, undertaking research into effects and monitoring them;
- assessing vulnerability and options for adapting to climate change;
- building capacity for, for instance, disaster preparedness and management and integrating adaptation measures into sustainable development;
- transferring technologies for adaptation to climate change;
- improving early warning systems for rapid response to extreme weather events;
- implementing adaptation activities where appropriate.

In addition, decision 5/CP.7 sets out a longer-term programme of analytical work on the adverse effects of climate change and the impact of the implementation of response measures (see section 12.B.3.), involving a series of workshops. Workshops were held in 2002 and 2003 on:

- modelling activities to assess the adverse effects of climate change and the impact of response measures⁶⁹;
- insurance issues around climate change, extreme weather events and the impact of response measures⁷⁰;

⁶⁸ See FCCC/SB/1999/9 for results of the workshops <<http://unfccc.int/resource/docs/1999/sb/09.pdf>> and FCCC/SB/2000/2 <<http://unfccc.int/resource/docs/2000/sb/02.pdf>>.

⁶⁹ FCCC/SBI/2002/9 <<http://unfccc.int/resource/docs/2002/sbi/09.pdf>>.

⁷⁰ FCCC/SBI/2003/11 <<http://unfccc.int/resource/docs/2003/sbi/11.pdf>>.

- synergies and cooperation with other environmental conventions⁷¹;
- needs and options of non-Annex I Parties for economic diversification and corresponding support programmes by Annex II Parties⁷²; and
- local coping strategies and technologies for adaptation⁷³.

The SBI considered the progress made on the implementation of decision 5/CP.7 at each of its sessions following COP 7. This included considering the results from the workshops. The SBI also took into account submissions from Parties and relevant international organizations on their views and the activities implementing decision 5/CP.7. It ultimately led to the adoption of the **Buenos Aires programme of work on adaptation and response measures** (decision 1/CP.10) at COP 10 in 2004.

Regarding the **adverse effects of climate change**, COP 10 decided to further the implementation of decision 5/CP.7 through actions including:

- improving the collection, analysis and dissemination of information, by, for example, improving systematic observation and monitoring networks in connection with the Global Climate Observing System (GCOS; see chapter 15), through increased data sharing between Parties and by strengthening in-country capacity-building;
- continuing training in specialized fields relevant to adaptation;
- developing and strengthening region-specific and country-specific modelling tools to assess climate change and its impacts;
- strengthening institutions and centres through targeted research programmes to address the adverse effects of climate change in vulnerable sectors;
- continuing to support education, training and public awareness on climate change issues and to assist participation by stakeholders;
- carrying out pilot and demonstration projects for adaptation to climate change;
- further improving technical training for integrated impact and vulnerability assessments, and for environmental management;
- promoting urgently the transfer of adaptation technologies in priority sectors such as agriculture and water resources;
- continuing to build capacity to prevent and react to disasters related to climate change, such as droughts, floods, and extreme weather events.

COP 10 asked the GEF to report to subsequent COP sessions on how these activities had been supported, and on barriers, obstacles and opportunities that had emerged from its various programmes and funds.

In addition, COP 10 encouraged the IPCC (see Chapter 4) to incorporate region-specific modelling information on the adverse effects of climate change

⁷¹ FCCC/SB/2003/1 <<http://unfccc.int/resource/docs/2003/sb/01.pdf>> and <http://unfccc.int/meetings/workshops/other_meetings/items/1104.php>.

⁷² FCCC/SBI/2003/18 <<http://unfccc.int/resource/docs/2003/sbi/18.pdf>>.

⁷³ FCCC/SB/2003/INF.2 <<http://unfccc.int/resource/docs/2003/sb/inf2.pdf>>.

into its fourth assessment report (AR4). It also stressed the importance of involving experts from developing countries in related research and assessment activities. COP 10 asked Annex II Parties to report on progress with support programmes for developing country Parties. It also encouraged non-Annex I Parties to report on their specific needs and concerns, including gaps in the implementation of decision 5/CP.7.

In order to facilitate the exchange of information and integrated assessments to assist in identifying specific adaptation needs and concerns, COP 10 requested the secretariat to organize, before COP 13 in 2007, three regional workshops and one expert meeting for SIDS.

The status of the implementation of Article 4.8, decision 5/CP.7 and decision 1/CP.10 is to be reviewed at COP 14 (2008).

Relevant COP decisions:

- Decision 1/CP.10: Buenos Aires programme of work on adaptation and response measures
- Decision 5/CP.7: Implementation of Article 4, paragraph 8 and 9, of the Convention (decision 3/CP.3 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol)
- Decision 12/CP.5: Implementation of Article 4, paragraphs 8 and 9, of the Convention and matters relating to Article 3, paragraph 14, of the Kyoto Protocol
- Decision 5/CP.4: Implementation of Article 4, paragraphs 8 and 9 of the Convention (Decision 3/CP.3 and Articles 2.3 and 3.14 of the Kyoto Protocol)
Annex: Programme of work
- Decision 3/CP.3: Implementation of Article 4, paragraphs 8 and 9, of the Convention

12.B.2. Addressing the special needs and special situations of least developed countries

Addressing the specific needs and the special situations of LDCs has been part of the overall work on implementing Articles 4.8 and 4.9, but it has also led to separate actions. In 2001, COP 7 adopted a package of decisions on the specific needs of LDCs. It established:

- a separate work programme for LDCs (decision 5/CP.7);
- an LDC Fund (decisions 5/CP.7, 7/CP.7 and 27/CP.7);
- guidelines for preparing national adaptation programmes of action (NAPAs) (decision 28/CP.7); and
- a Least Developed Countries Expert Group (LEG; decision 29/CP.7).

The main focus of the LDC work programme are the national adaptation programmes of action (NAPAs), which provide a process for LDCs to identify priority activities that respond to their urgent and immediate needs with regard to adaptation to climate change. The rationale for NAPAs rests on the limited ability of LDCs to adapt to the adverse effects of climate change. In order to

address the urgent adaptation needs of LDCs, a new approach was needed that would focus on enhancing adaptive capacity to climate variability, which itself would help address the adverse effects of climate change.

Besides NAPAs, the work programme also includes the following activities:

- strengthening existing national climate change secretariats and/or focal points in LDCs, or establishing new ones, to enable effective implementation of the Convention;
- training in negotiating skills and language to develop the capacity of LDC negotiators to participate effectively in the climate change process;
- promoting public awareness programmes;
- facilitating development and transfer of technology; and
- strengthening the capacity of meteorological and hydrological services.

Decision 5/CP.7 also called upon Annex II Parties to support the work programme, including through financial support. The **LDC Fund** (see chapter 13.C.2.b) is to support the work programme (decisions 5/CP.7 and 7/CP.7).

To provide advice to LDCs on preparing and implementing NAPAs, COP 7, in decision 29/CP.7, established the Least Developed Countries Expert Group (LEG). The group is composed of 12 experts: five from African LDC Parties, two from Asian LDC Parties, two from small island LDC Parties and three from Annex II Parties and meets twice a year. The initial mandate of the LEG ran for two years. In 2003, COP 9 extended its mandate for another two years with unchanged terms of reference. A further review took place at COP 11 in accordance with decision 7/CP.9. By decision 4/CP.11, the LEG's mandate was extended for another two years with unchanged terms of reference.

The LEG's mandate includes:

- providing technical guidance and advice on preparing and implementing NAPAs;
- advising on capacity-building needs for preparing and implementing NAPAs;
- facilitating the exchange of information and promoting regional synergies and synergies with other environmental conventions in the context of NAPAs; and
- advising on the mainstreaming of NAPAs into development planning by integrating them into national strategies for sustainable development.

During its first two-year term (2002–2003), the LEG organized several workshops to promote capacity-building for preparing NAPAs. This included one global workshop in 2002 and four regional workshops in Africa and the Asia and the Pacific region in 2003, which were organized in cooperation with the United Nations Institute for Training and Research (UNITAR) and other agencies⁷⁴.

⁷⁴ For more information on the regional workshops, see <<http://www.unitar.org/ccp/napaworkshops/index.htm>>.

Decision 28/CP.7 includes guidelines for the preparation of NAPAs (see Box 12.2) and invites LDCs to use them according to their national circumstances. The guidelines were to be reviewed at COP 8. Earlier in 2002, the LEG developed more detailed guidance for users of the NAPA guidelines in the form of annotations⁷⁵. COP 8 decided therefore not to review the original guidelines and invited LDCs to use the LEG's annotations (decision 9/CP.8). COP 9, which was mandated to review the guidelines further, reiterated that no revision of the guidelines was necessary (decision 8/CP.9).

The overall status of implementation of Article 4.9 was assessed at COP 9 and COP 10. COP 9 noted progress in supporting the preparation of NAPAs as one element of the work programme, and emphasized the need to begin work on the remaining elements⁷⁶. COP 10 noted with appreciation the progress in implementing the work programme and in preparing NAPAs⁷⁷, but was concerned that only one country (Mauritania) had so far completed its NAPA⁷⁸. Having considered the LEG report⁷⁹, COP 10 asked the LEG to draw up possible elements of a new mandate strengthening its role as support to the implementation of NAPAs and to report on it to SBI 23 (November–December 2005). Furthermore, COP 10 asked the LEG, in consultation with LDC Parties, to include in the report to SBI 23 information on the potential technical and financial difficulties that LDC Parties might have in implementing NAPAs⁸⁰. COP 11 then asked the LEG to prepare a work programme for the implementation of NAPAs⁸¹ which was welcomed at SBI 24 in May 2006. It also decided to review at COP 13 the progress, need for continuation and terms of reference of the group and to adopt a decision thereon.

As of mid-2006, six countries have submitted their NAPA.

Relevant COP decisions:

- Decision 5/CP.7: Implementation of Article 4, paragraph 8 and 9, of the Convention (decision 3/CP.3 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol)
- Decision 7/CP.7: Funding under the Convention
- Decision 27/CP.7: Guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Least Developed Countries Fund
- Decision 28/CP.7: Guidelines for the preparation of national adaptation programmes of action.
Annex: Guidelines for the preparation of national adaptation programmes of action

⁷⁵ FCCC/SBI/2002/INF.14 <<http://unfccc.int/resource/docs/2002/sbi/inf14.pdf>>.

⁷⁶ FCCC/CP/2003/L.7 <<http://unfccc.int/resource/docs/cop9/107.pdf>>.

⁷⁷ FCCC/CP/2004/10, paragraph 85 <<http://unfccc.int/resource/docs/cop10/10.pdf>>.

⁷⁸ FCCC/CP/2004/10, Annex III. <<http://unfccc.int/resource/docs/cop10/10.pdf>>.

⁷⁹ FCCC/SBI/2004/17 <<http://unfccc.int/resource/docs/2004/sbi/17.pdf>>.

⁸⁰ FCCC/SBI/2005/12 <<http://unfccc.int/resource/docs/2005/sbi/12.pdf>> and FCCC/SBI/2005/20 <<http://unfccc.int/resource/docs/2005/sbi/20.pdf>>.

⁸¹ FCCC/SBI/2006/9 <<http://unfccc.int/resource/docs/2006/sbi/09.pdf>>.

- Decision 29/CP.7: Establishment of a least developed countries expert group
Annex: Terms of reference of the least developed countries expert group
- Decision 8/CP.8: Guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Least Developed Countries Fund
- Decision 9/CP.8: Review of the guidelines for the preparation of national adaptation programmes of action
- Decision 6/CP.9: Further Guidance for the Operation of the Least Developed Countries Fund

Box 12.2: Guidelines for the preparation of NAPAs

These guidelines (Annex to decision 29/CP.7) set out principles, propose a process for preparing NAPAs and provide a structure for the NAPA document.

The purpose of NAPAs is to **communicate priority activities addressing the urgent and immediate needs and concerns** of the LDCs in relation to **adaptation**. NAPAs should be:

- easy to understand;
- country-driven; and
- action-oriented, setting clear priorities for action.

The approach to preparing them is intended to be **complementary**, building on existing plans and programmes and including national sectoral policies. Other guiding elements include:

- sustainable development;
- gender equality;
- sound environmental management; and
- cost-effectiveness.

NAPAs should be **prepared in a participatory process**, involving, in particular, local communities. To this end, the guidelines suggest setting up a **national NAPA team** composed of a lead agency and representatives of stakeholders, including government agencies and civil society. The national NAPA team will assemble a broader, multidisciplinary team to work on most of the tasks involved, in particular to:

- synthesize information;
- conduct a participatory assessment of vulnerability to current variability and extreme events and of areas where risks would increase because of climate change;
- identify key adaptation measures;
- identify and prioritize country-driven criteria for selecting priority activities;
- select a prioritized short list of activities and projects to address urgent and immediate adaptation needs.

The national team then develops **proposals for priority activities** in a **consultative process**, organized nationally and/or sub-nationally. The resulting NAPA document is subject to public **review and revision**, involving government and civil society representatives. After endorsement by the national government, the NAPA document is made available to the public and to the UNFCCC secretariat.

- Decision 7/CP.9: Extension of the mandate of the Least Developed Countries Expert Group
- Decision 8/CP.9: Review of the guidelines for the preparation of national adaptation programmes of action
- Decision 4/CP.10: Work of the Least Developed Countries Expert Group
- Decision 3/CP.11: Further Guidance for the Operation of the Least Developed Countries Fund
- Decision 4/CP.11: Extension of the mandate of the Least Developed Countries Expert Group

12.B.3. Addressing the impact of the implementation of response measures

The impact of the implementation of response measures refers to any possible adverse consequences that mitigation policies and measures adopted by Annex II Parties may have on developing countries, and how to minimize such adverse consequences. It has been addressed in parallel to the adverse effects of climate change under the Convention. At COP 7, in decision 5/CP.7, Parties agreed on a comprehensive process involving a number of activities in the area of response measures, including:

- promoting investment for economic diversification;
- developing and transferring more climate-friendly technologies, including non-energy uses of fossil fuels, advanced fossil fuel technologies and carbon capture/storage;
- expanding climate-friendly energy sources such as natural gas and bio-fuels; and
- building capacity, especially for improving efficiency in activities relating to fossil fuels.

In addition, some workshops in the series of workshops mandated by decision 5/CP.7 also addressed the impact of the implementation of response measures, including:

- modelling activities to assess the adverse effects of climate change and the impact of response measures⁸²;
- insurance issues around climate change, extreme weather events and the impact of response measures⁸³; and
- needs and options of non-Annex I Parties for economic diversification and corresponding support programmes by Annex II Parties⁸⁴.

Based on the workshop reports, submissions from Parties and relevant international organizations on their views and the activities implementing decision 5/CP.7, Parties adopted the Buenos Aires programme of work on adaptation and response measures (decision 1/CP.10) at COP 10 in 2004.

⁸² FCCC/SBI/2002/9 <<http://unfccc.int/resource/docs/2002/sbi/09.pdf>>.

⁸³ FCCC/SBI/2003/11 <<http://unfccc.int/resource/docs/2003/sbi/11.pdf>>.

⁸⁴ FCCC/SBI/2003/18 <<http://unfccc.int/resource/docs/2003/sbi/18.pdf>>.

Regarding the impact of the implementation of response measures, COP 10 requested the secretariat to organize two expert meetings to be held in conjunction with SBI 23 (November–December 2005) and SBI 24 (May 2006), focusing on respectively

- tools and methodologies to achieve resilience to possible impacts of response measures, including strategies for managing financial risk and modelling for socio-economic impacts⁸⁵;
- options for integrating economic diversification into sustainable development strategies and on needs for technical assistance and ways to encourage private sector investments in economic diversification⁸⁶.

The SBI is mandated to recommend further action to COP 13 in 2007, based on the outcome of these workshops. COP 10 also invited the GEF and other bilateral and multilateral sources of funding to report to COP 12 (2006) on their support for the activities related to this aspect of decision 5/CP.7

Besides work under the Convention, the Kyoto Protocol addresses the impact of the implementation of response measures (see Box 12.3)

Relevant COP decisions:

- Decision 1/CP.10: Buenos Aires programme of work on adaptation and response measures
- Decision 5/CP.7: Implementation of Article 4, paragraph 8 and 9, of the Convention (decision 3/CP.3 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol)
- Decision 12/CP.5: Implementation of Article 4, paragraphs 8 and 9, of the Convention and matters relating to Article 3, paragraph 14, of the Kyoto Protocol

Box 12.3: Relevant Kyoto Protocol articles related to the impact of the implementation of response measures

Article 2.3 urges Annex I Parties to strive to implement policies and measures set out under Article 2 in such a way as to minimize adverse effects of climate change ... on other Parties, especially on those identified in Article 4.8 and 4.9 of the Convention, taking into account Article 3 of the Convention on common but differentiated responsibilities. COP/MOP may take further action to promote the implementation of Article 2.3. No consensus has yet been reached on the issues related to its implementation but it will be further discussed by the SBSTA.

Article 3.14 requires Annex I Parties to strive to achieve their emission targets in such a way as to minimize adverse social, environmental and economic impacts on developing countries, particularly those identified in Article 4.8 and 4.9 of the Convention. In line with the relevant COP decisions, this article calls on the COP/MOP to consider what actions are necessary to minimize adverse effects of climate change and the impacts of response measures, including the establishment of funding, insurance and transfer of technology. The SBI agenda includes an item on matters relating to this article.

⁸⁵ See <<http://unfccc.int/meetings/items/3593.php>>.

⁸⁶ See <http://unfccc.int/meetings/workshops/other_meetings/items/3639.php>.

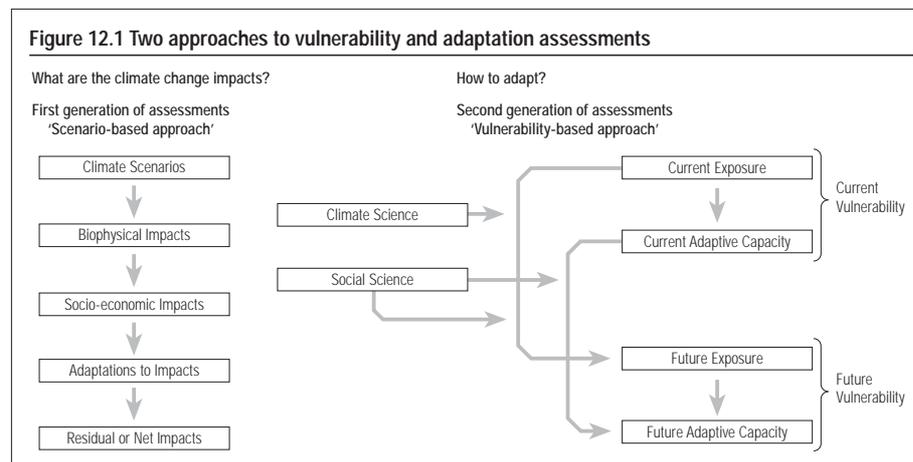
- Decision 5/CP.4: Implementation of Article 4, paragraphs 8 and 9 of the Convention (Decision 3/CP.3 and Articles 2.3 and 3.14 of the Kyoto Protocol)
Annex: Programme of work
- Decision 3/CP.3: Implementation of Article 4, paragraphs 8 and 9, of the Convention

Relevant COP/MOP decision

Decision 31/CMP.1: Matters relating to Article 3, paragraph 14, of the Kyoto Protocol

12.B.4. Methods and tools to assess climate change effects and adaptation options

COP 3 (1997) asked the secretariat to accelerate the development of methodologies for assessing adaptation technologies, in particular decision tools to evaluate alternative strategies (decision 9/CP.3). This request aimed to assist Parties to apply the best available methods of assessing their vulnerability to climate change and their options for adapting to it. In response, the secretariat has undertaken a number of activities, among them the publication in 1999 of an initial compendium of decision tools to evaluate adaptation strategies. COP 8 encouraged non-Annex I Parties to use this compendium to evaluate adaptation strategies and measures when preparing their national communications (decision 17/CP.8). The latest version⁸⁷ was released in January 2005. The secretariat continues to solicit comments from Parties, organizations and experts to regularly review and update the compendium.



⁸⁷ *Compendium of methods and tools to evaluate impacts of vulnerability and adaptation to climate change. Final draft report*, January 2005. <http://unfccc.int/files/adaptation/methodologies_for/vulnerability_and_adaptation/application/pdf/consolidated_version_updated_021204.pdf>.

The secretariat has also organized a number of expert meetings and workshops with the participation of the IPCC, the United Nations Development Programme (UNDP) and the user community to identify opportunities for cooperation. These include a workshop held in June 2001 which explored:

1. the experience developing countries have had with adaptation tools and methodologies;
2. the current state-of-the-art methodologies identified in the IPCC's Third Assessment Report (TAR) and how these apply to the specific circumstances of developing countries; and
3. options for improving the quality and flow of information on impact and adaptation methodologies.

The workshop came to a number of conclusions on further methodological work⁸⁸. It also highlighted the need for a "second generation" of assessments of vulnerability, impacts and adaptation, which would incorporate traditional and local knowledge and be integrated into national processes for sustainable development.

SBSTA 15 (October–November 2001) supported the conclusions of the workshop and noted that more scientific work should be done on improving and developing methodologies for assessing impacts and adaptation. At the same session, the SBSTA endorsed the acceleration and broadening of the work of the secretariat in this area and noted the linkages between work on methodologies and activities relating to Articles 4.8 and 4.9, national communications from non-Annex I Parties, technology transfer and capacity-building.

Methodological work on adaptation was further considered at subsequent SBSTA sessions.

Relevant COP decisions:

Decision 9/CP.3: Development and transfer of technologies

Decision 17/CP.8: Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention

12.B.5. Scientific, technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change

Scientific, technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change was one of three preliminary areas identified by SBSTA 16 (June 2002) for regular consideration. The other areas were scientific, technical and socio-economic aspects of mitigation and research and systematic observation. All three were discussed by the SBSTA up to SBSTA 19 (December 2003) in the context of consideration of the IPCC Third Assessment Report (TAR). Following decision 10/CP.9 (see chapter 11) and the conclusion of consideration of the TAR, work on adaptation and

⁸⁸ FCCC/SBSTA/2001/INF.4. <<http://unfccc.int/resource/docs/2001/sbsta/inf04.pdf>>.

mitigation was separated into two new agenda items⁸⁹ from SBSTA 20 on. The work focuses on exchanging information and sharing experiences and views among Parties on practical ways to help implement the Convention.

12.B.5.a. SBSTA five-year programme of work on impacts, vulnerability and adaptation

As part of the Buenos Aires programme of work on adaptation and response measures, relating especially to the implementation of Article 4.8 (see section 12.B.1 above), COP 10 (December 2004) asked the SBSTA to develop a structured five-year programme of work which would address the issues of:

1. methodologies, data and modelling;
2. vulnerability assessments;
3. adaptation planning, measures and actions; and
4. integration of adaptation into sustainable development.

The SBSTA programme of work on impacts, vulnerability and adaptation to climate change was adopted by COP 11 in 2005 (see decision 2/CP.11). This decision defines the objective of the programme of work, its expected outcome, scope, modalities and process for implementation.

The objective is to assist all Parties to “improve their understanding and assessment of impacts, vulnerability and adaptation, and to make informed decisions on practical adaptation actions and measures to respond to climate change on a sound, scientific, technical and socio-economic basis, taking into account current and future climate change and variability”.

The work comprises two thematic areas and ten sub-themes for action, as follows:

- (a) Impacts and vulnerability:
 - (i) Promoting the development and dissemination of methodologies and tools for impact and vulnerability assessments, such as rapid assessments and bottom-up approaches, taking account of sustainable development;
 - (ii) Improving the collection, management, exchange, access to and use of observational data and other relevant information on current and historical climate and its impacts, and promoting the improvement of observations, including the monitoring of climate variability;
 - (iii) Promoting the development of, access to, and use of information and data on projected climate change;
 - (iv) Promoting the understanding of impacts of, and vulnerability to, climate change, current and future climate variability and extreme events, and the implications for sustainable development;
 - (v) Promoting the availability of information on the socio-economic aspects of climate change and improving the integration of socio-economic information into impact and vulnerability assessments.

⁸⁹ These are “technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change”; and “scientific, technical and socio-economic aspects of mitigation”.

- (b) Adaptation planning, measures and actions:
- (i) Promoting the development and dissemination of methods and tools for assessing and improving adaptation planning, measures and actions, and integration with sustainable development;
 - (ii) Collecting, analysing and disseminating information on past and current practical actions and measures, including adaptation projects, short- and long-term adaptation strategies, and local and indigenous knowledge;
 - (iii) Promoting research on options and the development and diffusion of technologies, know-how, and practices for adaptation, particularly addressing identified adaptation priorities and building on lessons learned from current projects and strategies;
 - (iv) Facilitating communication and cooperation among and between Parties and relevant organizations, business, civil society, and decision makers, and other stakeholders;
 - (v) Promoting understanding and the development and dissemination of measures, methodologies and tools including those for economic diversification to increase economic resilience and reduce reliance on vulnerable economic sectors, especially for relevant categories of countries listed in Article 4.8 of the Convention.

The work will be implemented through specific activities under each sub-theme. The implementation of such activities should incorporate two cross-cutting issues:

- i) methodologies, data and modelling;
- ii) integration into sustainable development.

An initial draft list of activities for the programme of work was considered at SBSTA 23 (November–December 2005), at an informal meeting of Parties held before SBSTA 24⁹⁰ and at SBSTA 24. The secretariat has also compiled an initial list of entities active in areas relevant to the programme of work⁹¹. Activities and modalities will be further considered at SBSTA 25 with the aim of identifying specific actions up to SBSTA 28 (June 2008). At that session, in accordance with decision 2/CP.11, the programme of work will be reviewed.

Relevant COP decisions:

- Decision 2/CP.11: Five-year programme of work of the Subsidiary Body for Scientific and Technological Advice on impacts, vulnerability and adaptation to climate change
- Decision 1/CP.10: Buenos Aires programme of work on adaptation and response measures
- Decision 10/CP.9: Scientific, technical and socio-economic aspects of impacts of, and vulnerability and adaptation to, climate change, and scientific, technical and socio-economic aspects of mitigation

⁹⁰ See report of the informal meeting in FCCC/SBSTA/2006/4 <<http://unfccc.int/resource/docs/2006/sbsta/eng/04.pdf>>.

⁹¹ See FCCC/SBSTA/2006/INE3 <<http://unfccc.int/resource/docs/2006/sbsta/eng/inf03.pdf>>.

12.B.6. Providing financial resources

The Global Environment Facility (GEF), an entity operating the financial mechanism under the Convention, has been mandated to support adaptation activities in developing countries. Funding options were extended by the Marrakesh Accords at COP 7 (2001) and included the establishment of three new funds which all have a strong adaptation component. While chapter 13 describes the operation of the financial mechanism in general and the Marrakesh funds in particular, this section more specifically addresses the overall approach taken in financing for adaptation.

In its initial guidance to the GEF (decision 11/CP.1), COP 1 (March–April 1995) established a three-stage approach to funding adaptation to climate change.

1. **Stage I** (short term): studies of possible impacts of climate change to identify particularly vulnerable countries or regions and provide policy options for adaptation and appropriate capacity-building.

The following two stages (for the medium to long term) were envisaged for the particularly vulnerable countries or regions identified in Stage I:

1. **Stage II**: measures, including further capacity-building, which may be taken to prepare for adaptation, as envisaged by Article 4.1(e). This provides for the preparation of plans for adaptation (see section 12.A above).
2. **Stage III**: measures to facilitate adequate adaptation, including insurance, among others.

The GEF has funded Stage I studies in non-Annex I Parties, as requested by decision 11/CP.1. It has further funded some Stage II activities in accordance with decision 2/CP.4 and decision 6/CP.7. In both cases, funding was provided in the context of national communications and therefore on an “agreed full costs” basis (see chapter 13), according to Article 4.3 of the Convention⁹². In line with this initial approach, COP 10 (December 2004), in its decision 8/CP.10, asked the GEF to expand support for drawing up adaptation strategies as part of the national communication process for non-Annex I Parties.

Guidance to the GEF provided at COP 7 (October–November 2001) included the request to provide financial resources, in particular to the least developed country Parties and the SIDS, for “establishing pilot or demonstration projects to show how adaptation planning and assessment can be practically translated into projects that will provide real benefits, and may be integrated into national policy and sustainable development planning, on the basis of information provided in national communications or in-depth national studies, ... and of the staged approach” (decision 6/CP.7).

In response to increased requests for financing adaptation by the COP, in 2003 the GEF adopted a new strategic priority *Piloting an operational approach to*

⁹² FCCC/CP/2004/6, Report of the GEF to COP 10. <<http://unfccc.int/resource/docs/cop10/06.pdf>>.

adaptation, known as SPA, under its Trust Fund (from which the Marrakesh funds are managed separately). COP 9 asked the GEF to put the new strategic priority into operation as soon as possible and report on it to the COP (decision 4/CP.9). The SPA was then endorsed by the GEF Council in May 2004, along with a document describing how it would be implemented⁹³.

In its report to COP 10, the GEF provided the following information on steps taken to implement decision 4/CP.9. The strategic priority would lead to broad-based results, good practices and lessons that would inform the international community as it sought effective ways to address adaptation. The pilot approach envisaged that adaptation-related funding separate from the ongoing funding for national communications was to be increased. This would be provided on the basis of “incremental costs” rather than “full costs”, in accordance with the GEF’s general principle. This is to fund the incremental costs of projects to achieve global environmental benefits, i.e. those additional costs that are necessary to make the project yield global benefits in addition to national benefits (see Box 13.1 in chapter 13). Since funded adaptation projects were also expected to provide other major development benefits, baseline activities would require funding by governments, NGOs, and bilateral and other sources of financing.

Under the SPA, the GEF foresees funding the incremental costs of those adaptation activities that generate global environmental benefits as well as the incremental costs of selected adaptation activities that are identified as high priorities by national communications. The SPA offers the opportunity to test selected adaptation measures in key vulnerable sectors, regions, ecosystems and communities. The lessons from the SPA should guide and assist the global community as it seeks to address the issue of adaptation in developing countries. Projects are to be selected on the basis of information contained in the national communications under the Convention, NAPAs, and other national or regional studies. Further clarification on the eligibility criteria for projects submitted under the SPA and practical and operational advice to implementing agencies, executing agencies and project proponents can be found in the GEF document *Operational guidelines for the strategic priority ‘Piloting an operational approach to adaptation’*⁹⁴.

The GEF also provides funding that indirectly addresses adaptation through projects in its focal areas other than climate change, such as biodiversity, land degradation and international waters. In order to tap opportunities to further integrate adaptation into all its focal areas, the GEF’s operational approach to adaptation emphasizes linkages in all its other focal areas, with the aim of fully mainstreaming adaptation throughout its portfolio. The SPA will

⁹³ *GEF Assistance to Address Adaptation*, GEF/C.23/Inf.8/Rev.1. See also *A proposed GEF Approach to Adaptation to Climate Change*, GEF/C.21/Inf.10
<http://www.thegef.org/Documents/Council_Documents/GEF_C21/C.21.Inf.10_Adaptation_to_CC.pdf>.

⁹⁴ *Operational guidelines for the strategic priority ‘Piloting an operational approach to adaptation’ (SPA)*, GEF/C.27/Inf.10, 14 October 2005 <http://thegef.org/Documents/Council_Documents/GEF_C27/7documents/C.27.Inf.10OperationalGuidelinesforStrategicPriority.pdf>.

therefore support activities that increase adaptive capacity and resilience to climate change in any of the GEF focal areas. Furthermore, adaptation to climate change offers a concrete opportunity to test the linkages between the climate change, biodiversity and desertification conventions at the operational level. The overall goal of the GEF's support in the area of adaptation will be to assist countries to mainstream adaptation into their development planning.

Other initiatives of direct relevance to adaptation supported by the GEF include:

- the new Operational Programme on Sustainable Land Management⁹⁵, which emphasizes an integrated, cross-sectoral approach;
- the expanded role envisaged for capacity-building, particularly for cross-cutting capacity-building projects⁹⁶.

As part of the Buenos Aires programme of work on adaptation and response measures (decision 1/CP.10), COP 10, in its decision 8/CP.10, asked the GEF to report on how activities identified in paragraph 6 of decision 1/CP.10 had been supported, and what barriers, obstacles and opportunities had emerged.

In its report⁹⁷, the GEF updated COP 11 with information on its three ways of funding adaptation: the SPA, the LDC Fund (see chapter 13) and the SCCF (see chapter 13). An indicative target of US\$50 million for the SPA was included in the 2003 business plan. The first medium-sized projects under the SPA were approved in 2003. Activities for support under the SPA include the US\$5million adaptation programme of the Small Grants Programme. It is expected to develop a framework to respond to single community-based adaptation needs, identify and finance diverse community-based adaptation projects in a number of selected countries, and pass on the lessons learned at the community level to all stakeholders, including governments.

In the same report, results from the overall performance study of the GEF indicated that the GEF climate change programme would benefit from more distinct guidance on the role of adaptation in its portfolio. The report also noted that the GEF had many issues to resolve in its funding of adaptation activities.

Relevant COP decisions:

- Decision 11/CP.1: Initial guidance on policies, programme priorities and eligibility criteria to the operating entity or entities of the financial mechanism
- Decision 2/CP.4: Additional guidance to the operating entity of the financial mechanism
- Decision 6/CP.7: Additional guidance to an operating entity of the financial mechanism

⁹⁵ GEF/C.21/6 <http://www.thegef.org/Documents/Council_Documents/GEF_C21/C.21.6.pdf>.

⁹⁶ FCCC/CP/2003/3 <<http://unfccc.int/resource/docs/cop9/03.pdf>>.

⁹⁷ FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>.

Decision 4/CP.9: Additional guidance to an operating entity of the financial mechanism

Decision 8/CP.10: Additional guidance to an operating entity of the financial mechanism

12.B.7. Transferring technology

Much work relevant to adaptation has been done in developing and transferring technologies (see chapter 14). Following guidance by the COP and the SBSTA, the secretariat has prepared a number of reports and technical papers, mostly related to technologies for both mitigation and adaptation. Some, however, focus specifically on adaptation. They include papers on *Adaptation technologies*⁹⁸; *Coastal adaptation technologies*⁹⁹; and *Enabling environments for technology transfer*¹⁰⁰.

A seminar on developing and transferring environmentally sound technologies for adaptation to climate change¹⁰¹ was organized by the secretariat in 2005. SBSTA 23 (November–December 2005) considered its outcomes and acknowledged its contribution to broadening understanding on: concepts; needs for; and identification and evaluation of, technologies for adaptation; sharing lessons learned; and identifying promising areas of future work. The workshop conclusions served as a basis for the secretariat, in consultation with the Expert Group on Technology Transfer (EGTT), to prepare a technical paper entitled *Application of environmentally sound technologies for adaptation to climate change*¹⁰².

In addition, the technology information system established by the secretariat (TT:CLEAR; see chapter 14) includes the following elements relating to adaptation:

- an inventory of existing adaptation centres;
- information about adaptation technology projects (mainly from national communications of both Annex I and non-Annex I Parties); and
- a database of adaptation technologies.

12.B.8. National communications

The guidelines for national communications of both Annex I Parties and non-Annex I Parties (see chapter 18) require Parties to report on activities related to adaptation. National communications from Annex I Parties are to contain a section on “vulnerability assessment, climate change impacts and adaptation measures”. Non-Annex I Parties are to include information on programmes containing measures to facilitate adequate adaptation to climate change in their “general description of steps taken or envisaged to implement the Convention”.

⁹⁸ FCCC/TP/1997/3 <<http://unfccc.int/resource/docs/tp/tp3.pdf>>.

⁹⁹ FCCC/TP/1999/1 <<http://unfccc.int/resource/docs/tp/tp0199.pdf>>.

¹⁰⁰ FCCC/TP/2003/2 <<http://unfccc.int/resource/docs/tp/tp0302.pdf>>.

¹⁰¹ FCCC/SBSTA/2005/8 <<http://unfccc.int/resource/docs/2005/sbsta/eng/08.pdf>>.

¹⁰² FCCC/TP/2006/2 <<http://unfccc.int/resource/docs/2006/tp/tp02.pdf>>.

All 32 third national communications from **Annex I Parties** covered by the secretariat's compilation and synthesis report¹⁰³ contained scenario-based assessments of climate change impacts, including data on recent projections of likely future climate change. Some Parties reported on steps related to adaptation that they had taken within the national climate change process, including the allocation of additional funding to develop a policy framework. Some Parties reported on initial work to identify strategic adaptation options for the coming decades. Parties also reported an increasing focus on integrated assessments to include economic and cross-sectional analysis of adaptation options. All Parties presented initiatives on adaptation research that were in the planning stage or the very early stages of implementation.

Almost all Parties referred to bilateral projects and programmes that would help countries to adapt to climate change, but the quality and quantity of information provided was still variable. Projects aimed at assessments of vulnerability, disaster preparedness, and response and risk management were described as key components of adaptation policies. Vulnerability assessment and disaster preparedness were also among the fields of activity which received most support in capacity-building.

As for **non-Annex I Parties**¹⁰⁴, all followed the Convention guidelines for reporting on impacts, vulnerability and adaptation. Although the information centered on Parties' current and future vulnerability and adaptation options, measures and strategies, it also covered the methods and approaches used in assessing vulnerability and adaptation; limitations of methods and tools; problems and difficulties encountered; sectors studied; methods for analysing and evaluating adaptation needs and priorities for financial and technical support; and institutional arrangements and networking. Most of the Parties reporting used both internationally developed methodologies and national models, ranging from the use of sophisticated computer models to qualitative assessments based on expert judgment and literature review.

Most of the adaptation options covering a wide range of sectors were identified using the *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation* to evaluate and determine the cost of specific adaptation strategies and measures. Most Parties emphasized that they were already experiencing stresses from climate and climate-related events and phenomena that could be exacerbated by future climate change. This makes them highly vulnerable. The key vulnerabilities included agriculture and food security; water resources; coastal zones and marine ecosystems; terrestrial ecosystems (forests, rangelands, etc.); human health and human settlements; fisheries; biodiversity; infrastructure; coral reefs; tourism; and energy. Many Parties also reported on

¹⁰³ FCCC/SBI/2003/7 <<http://unfccc.int/resource/docs/2003/sbi/07.pdf>> and FCCC/SBI/2003/7/Add.1 <<http://unfccc.int/resource/docs/2003/sbi/07a01.pdf>>.

¹⁰⁴ See FCCC/SBI/2005/18 and Add. <<http://unfccc.int/resource/docs/2005/sbi/eng/18.pdf>>, the sixth compilation and synthesis report, FCCC/SBI/2003/13 <<http://unfccc.int/resource/docs/2003/sbi/13.pdf>>, the fifth compilation and synthesis report, FCCC/SBI/2002/8 and for a summary of the first four compilation and synthesis reports <<http://unfccc.int/resource/docs/2002/sbi/08.pdf>>.

plans to incorporate or integrate climate change concerns into their planning processes as a strategy for adaptation over the long term.

The Consultative Group of Experts (CGE; see chapters 2 and 19) examined the assessments of vulnerability and adaptation in the national communications and recommended ways to improve the process of reporting on them. The results were taken into account in the new reporting guidelines adopted at COP 8 (October–November 2002), which provide flexibility for more detailed reporting on vulnerability and adaptation needs (see chapter 18).

At its second meeting in May 2004, the CGE set up thematic areas to facilitate its work, one of which focuses on assessments of vulnerability and adaptation. Part of its activities planned for 2006 is to organize regional hands-on workshops to train experts in using guidelines to prepare the second and subsequent national communications from non-Annex I Parties. One of these workshops took place in March 2006 for the Asia and the Pacific region¹⁰⁵; another is scheduled for the Latin America and the Caribbean region.

12.B.9. Other areas of relevance to adaptation

Research and systematic observation (see chapter 15): the work of the SBSTA on global systems to observe climate is crucial in enabling Parties to apply observations, data and products to climate impact assessments and preparation for adaptation. It also supports the implementation of the five-year programme of work on impacts, vulnerability and adaptation to climate change. Support to the *Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC* prepared by the Global Climate Observing System (GCOS) secretariat is consistent with actions identified in decision 5/CP.7 in relation to the adverse effects of climate. In its consideration of research needs and priorities to support the implementation of the Convention as well as national efforts to cope with climate change, SBSTA 24 considered the results of the synthesis report on research needs and priorities relating to the Convention¹⁰⁶. This highlights the need to stimulate research in areas not addressed by the global change research programmes, such as mitigation technology and planning and measures for adaptation.

Education, training and public awareness: the New Delhi work programme on Article 6 of the Convention (decision 11/CP.8; see chapter 16) recognizes that many Parties, intergovernmental organizations, NGOs and community-based organizations, as well as the private and public sectors, are already working actively to raise awareness, and increase understanding of, the causes and impacts of climate change, and possible solutions. The programme therefore encourages Parties and other entities to cooperate in promoting, facilitating, developing and implementing public awareness programmes on climate change and its effects at all levels. Activities that facilitate public access to information on climate change and its effects, and that promote public participation in addressing climate change and its effects

¹⁰⁵ See <http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2885.php>.

¹⁰⁶ See FCCC/SBSTA/2006/INF.2.

and in developing adequate responses are also encouraged. Results of regional workshops¹⁰⁷ organized as one of the major activities to implement the New Delhi work programme emphasize a high priority for training in vulnerability studies and access to information on adaptation.

The frameworks for **capacity-building** in developing countries and in EITs adopted at COP 7 (decisions 2/CP.7 and 3/CP.7; see chapter 17) include issues related to adaptation, such as capacity-building for assessing vulnerability and adaptation and for implementing adaptation measures. The technical paper¹⁰⁸ that investigates the range and effectiveness of capacity-building activities in developing countries following decision 2/CP.7, confirms that vulnerability and adaptation assessments and implementation of adaptation measures are areas where there is a great need for capacity-building. Parties are also assisted by the web-based technology information clearing house TT:CLEAR which provides information methods, models, and tools to assess mitigation and adaptation options and strategies.

¹⁰⁷ See <http://unfccc.int/cooperation_and_support/education_and_outreach/items/3143.php> for workshop reports>.

¹⁰⁸ *The range and effectiveness of capacity-building in developing countries relating to decision 2/CP.7* FCCC/TP/2004/1 <<http://unfccc.int/resource/docs/tp/tp0401.pdf>>.

Providing financial resources

This chapter discusses how the financial resources for implementing the Convention are provided. The Convention calls for financial assistance from Parties with more resources to those less well endowed and more vulnerable. This recognizes that the contribution of countries to climate change and their capacity to prevent it and cope with its consequences vary enormously.

Developed country Parties (Annex II Parties) are to provide financial resources to assist developing country Parties implement the Convention. To facilitate this, the Convention established a financial mechanism to provide funds to developing country Parties.

The Parties to the Convention assigned operation of the financial mechanism to the Global Environment Facility (GEF) on an ongoing basis, subject to review every four years. The financial mechanism is accountable to the COP, which decides on its climate change policies, programme priorities, and eligibility criteria related to this convention, based on advice from the SBI.

COP 7 also established three special funds: the Special Climate Change Fund (SCCF) and Least Developed Countries Fund (LDC Fund), under the Convention; and the Adaptation Fund (AF), under the Kyoto Protocol. The SCCF and the LDC Fund are operational and managed by the GEF. Parties are still negotiating how to put the Adaptation Fund into operation.

Funding for climate change activities is also available through bilateral, regional and multilateral channels.

Section 13.A outlines the general provisions and arrangements under the Convention, including institutional arrangements with the GEF (13.A.1) and financial contributions from Parties (13.A.2). Box 13.1 explains some specific expressions used by the GEF and Box 13.2 outlines the Resource Allocation Framework. Section 13.B provides an overview of the guidance that the COP has given to the GEF. Section 13.C addresses sources of funding within and outside the financial mechanism of the Convention.

13.A. General provisions and arrangements

Article 4.3 of the Convention requires Annex II Parties to:

- provide new and additional financial resources to meet the agreed full costs (see Box 13.1) incurred by developing country Parties in fulfilling their reporting obligations under Article 12.1 (see chapter 18); and to
- provide such financial resources as needed by the developing country Parties, including for the transfer of technology, to meet the agreed full incremental costs (see Box 13.1) of implementing measures covered by Article 4.1 (which lays down the commitments of all Parties for programmes and measures related to mitigation and adaptation).

In addition, Article 4.4 requires Annex II Parties to “assist those developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects” (see chapter 12).

Article 4.5 more broadly addresses technology transfer and related issues (see chapter 14), including the provision that Annex II Parties are to “take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly developing country Parties, to enable them to implement the provisions of the Convention”.

Box 13.1: “Incremental”, “full” and “agreed” costs in accordance to the GEF

Although the Convention refers to “agreed full costs” and “agreed full incremental costs”, it does not provide an operational definition of these terms, which is done by the GEF Council.

These concepts have however been defined by the GEF. In its 1996 policy paper on incremental costs¹⁰⁹, the GEF provided basic definitions and criteria for “incremental costs”, “agreed full costs” and “agreed full incremental costs”. While the GEF has done considerable work since then on elaborating the concept of incremental costs, and has announced simplified guidelines for their calculation, the 1996 definitions are still referred to for a basic understanding. The indications in this box therefore draw upon those definitions, and quotations are taken from the GEF policy paper, unless indicated otherwise.

“Incremental costs” are the additional costs associated with transforming a project with national benefits into one with global environmental benefits. As stated in the *Instrument for the Establishment of the Restructured GEF* (1994), the GEF provides funding “to meet the agreed incremental costs of measures to achieve agreed global environmental benefits”¹¹⁰. Incremental costs have therefore to be identified in order to determine the share of project costs that would be eligible for funding from the GEF. “A simple example of an action that incurs an incremental cost in order to realize global environmental benefits is the use of advanced solar energy technology in a situation where a less costly coal-fired power generator with pollution control would have been sufficient to generate the electric power needed for development, while meeting reasonable environmental standards ... In such a case, the incremental cost is associated with the global environmental benefit of reduction in greenhouse gas emissions.”

“Agreed” means that the funded costs of a project are agreed upon in advance between the GEF and the country where the project takes place. “Because projects are country-driven and because implementation is ultimately voluntary, recipients need not incur incremental costs that they feel would not be reimbursed in full.”

The provision for **“full”** incremental costs involves two aspects: first, the incremental costs funded for a project are not to be diminished as a result of any additional domestic benefits that a project with global environmental benefits might yield in comparison with the baseline activity. Second, “every effort will be made to identify all the significant incremental costs and not just the most obvious ones”.

The **“agreed full costs”** are to be funded for activities carried out in connection with Parties’ reporting obligations under the Convention. “Because these activities include items such as studies and communications, for which there is clearly no activity in the baseline, the total costs and the incremental costs are in fact the same ... For example, without global considerations, no country would need to prepare a greenhouse gas inventory, so the baseline is simply ‘no inventory activity’ and the incremental cost of the inventory is actually the total cost.”

¹⁰⁹ GEF/C.7/Inf.5; <http://thegef.org/Operational_Policies/Eligibility_Criteria/Incremental_Costs/incremental_costs.html>.

¹¹⁰ *Instrument for the Establishment of the Restructured Global Environment Facility*, paragraph 2. <<http://thegef.org/Documents/Instrument/instrument.html>>.

13.A.1. Institutional arrangements with the GEF

Article 11 of the Convention defines a “mechanism for the provision of financial resources on a grant or concessional basis, including for the transfer of technology”. This financial mechanism is to function under the guidance of the COP and be accountable to it. Its operation “shall be entrusted to one or more existing international entities”. Article 21.3 mandates the GEF¹¹¹ to be this entity on an interim basis.

The GEF was established by the World Bank, the United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) in 1991 to fund projects in developing countries that provide global environmental benefits.

Article 21.3 further states that the GEF “should be appropriately restructured and its membership made universal to enable it to fulfil the requirements of Article 11”. Article 11.2 specifically requires “an equitable and balanced representation of all Parties within a transparent system of governance”. The Convention’s call to restructure the GEF was supported by Agenda 21¹¹² and the Convention on Biological Diversity (CBD). It reflected concerns, from developing countries especially, that the initial membership and decision-making processes of the GEF were too dominated by donors. At the time of the adoption of the Convention in 1992 the GEF was itself still at an early stage of development, its first three years of operation (1991–1994) having been conceived as a pilot phase.

Restructuring was completed in March 1994 and documented by the GEF in a report to the Intergovernmental Negotiating Committee (INC)¹¹³. The Instrument for the Establishment of the Restructured GEF foresees a governance structure including a Council, an Assembly and a Secretariat headed by a Chief Executive Officer (CEO). All States may become members of the GEF. The structure was conceived with the aim of ensuring a balanced representation of donor and recipient countries, which is reflected in the Council’s composition as well as in its voting rules.

The **GEF Council**, which meets twice a year, functions as an independent board of directors, with primary responsibility for developing, adopting, and evaluating GEF programmes. It is composed of 32 members: 16 from developing countries, 14 from developed countries and 2 from EITs. Council decisions are normally taken by consensus. However, any member of the Council may require a formal vote, which shall be taken by a double weighted majority; that is, an affirmative vote representing both a sixty percent majority of the total number of participants (countries) and a sixty percent majority of total contributions. Since

¹¹¹ <<http://www.thegef.org/>>.

¹¹² Paragraph 33.14(a)(iii).

¹¹³ *Report by the GEF to the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change on the Restructured Global Environment Facility*, Annex I to A/AC.237/89 <<http://unfccc.int/resource/docs/a/89.pdf>>. See also *Instrument for the Establishment of the Restructured Global Environment Facility*, <<http://thegef.org/Documents/Instrument/instrument.html>>.

the restructuring of the GEF in 1994, all decisions have been taken by consensus: the voting arrangements have never been utilized.

The **GEF Assembly**, composed of all participating States (currently 176), comes together every three or four years to assess the GEF's overall direction. The First GEF Assembly met in New Delhi in 1998, the second in Beijing in 2002 and the third is scheduled for August 2006 in Cape Town, South Africa.

According to Article 11.4, COP 1 was to decide whether to maintain the interim arrangements with the GEF. Within four years thereafter, the COP was to review the financial mechanism. COP 1 (March–April 1995) accordingly decided that the interim arrangements should be maintained (decision 9/CP.1) but further elaborated (decision 10/CP.1). Consequently, COP 2 adopted a **Memorandum of Understanding** (MOU) with the Council (1996) that determines their respective roles and responsibilities (decision 12/CP.2 and Annex). It states that the COP is to decide on policies, programme priorities and eligibility criteria for the financial mechanism and communicate to the Council any relevant policy guidance adopted at each of its sessions. The Council commits itself to ensuring the effective operation of the GEF in conformity with this guidance and to reporting regularly to the COP on its activities related to the Convention. In fact, the GEF has reported on its work related to climate change to the COP every year. The COP has to reconsider the funding decisions for specific projects if any Party is of the opinion that the decision does not comply with the policy guidance provided by the COP. However, it cannot directly change such decisions, but may ask the Council of the GEF for further clarification of the specific decision and, in due course, for a reconsideration of that decision.

The MOU also details, inter alia, the content of the GEF's annual reports to the COP, the cooperation between the secretariats of the Convention and of the GEF, the form of representation in meetings of governing bodies, and the review and evaluation of the financial mechanism. An Annex to the MOU on the "determination of funding necessary and available for the implementation of the Convention", was adopted at COP 3 (decision 12/CP.3¹¹⁴; see section 13.A.2).

In 1998, COP 4 ended the interim status of the arrangement and designated the GEF as an operating entity of the financial mechanism on an ongoing basis, subject to **review** every four years according to the guidelines annexed to decision 3/CP.4. The second review of the financial mechanism took place in 2002, supported by a report from the Convention secretariat¹¹⁵. In decision 5/CP.8, Parties stated that the GEF had performed its role effectively as an entity operating the financial mechanism of the Convention. They called on the GEF secretariat to initiate a dialogue, in consultation with the Convention secretariat, on how to implement more effectively the guidance provided by the COP to the GEF, and to explore opportunities for streamlining guidance. Consultations have therefore taken place between the two secretariats to strengthen collaboration

¹¹⁴ Referring to decision 1/SBI.4 (FCCC/SBI/1996/14

<<http://unfccc.int/resource/docs/1996/sbi/14.pdf>>), which contains the text of the Annex.

¹¹⁵ FCCC/SBI/2002/14 <<http://unfccc.int/resource/docs/2002/sbi/14.pdf>>.

and ensure regular communication and information exchange¹¹⁶. The third review of the financial mechanism should be finalized by COP 12 in 2006 drawing on recommendations from SBI 24. The recommendations will be based on a report on the financial mechanism¹¹⁷, as well as views submitted by Parties on their experience of its effectiveness. As requested in decision 9/CP.10, the SBI will also use the report *The experience of international funds and multilateral financial institutions relevant to the investment needs of developing countries for the purposes of fulfilling their commitments under the Convention*¹¹⁸. In addition, the COP uses the GEF overall performance studies as inputs to its reviews of the financial mechanism¹¹⁹.

13.A.2. Contributions of financial resources by Parties

Article 4.3 of the Convention emphasizes “the need for adequacy and predictability in the flow of funds and the importance of appropriate burden-sharing among developed country Parties”. Accordingly, Article 11.3(d) stipulates that part of the arrangements between the COP and the entity entrusted with operating the financial mechanism it is to be to determine “in a predictable and identifiable manner” the amount of funding necessary and available for implementing the Convention and the conditions under which that amount is to be periodically reviewed. Paragraph 9 of the MOU states that the COP and the GEF Council “shall jointly determine the aggregate funding requirements for the purpose of the Convention”. Referring to Article 11.3(d), the Annex to the MOU states that “in anticipation of a replenishment of the GEF [i.e. the commitment of additional funds], the COP will make an assessment of the amount of funds that are necessary to assist developing countries ... in fulfilling their commitments under the Convention over the next GEF replenishment cycle”. It further stipulates that the “GEF replenishment negotiations will take into account fully and comprehensively the COP’s assessment”, and that the result is to be documented by the GEF in its annual report for consideration by the COP.

COP 8 (October–November 2002) asked the secretariat to prepare a report, in consultation with the GEF secretariat, on the implementation of the provisions that determine the funding required to implement the Convention (decision 5/CP.8). After consideration of this report, SBI 20 (June 2004)¹²⁰ asked the secretariat to prepare a further report, again in collaboration with the GEF secretariat, to be considered by COP 10. This second report would assess the funding necessary to assist developing countries in fulfilling their commitments under the Convention¹²¹. In order to contribute to the joint determination under paragraph 9 of the MOU referred to above, it would also assess, with the

¹¹⁶ See the report of the GEF to COP 9, FCCC/CP/2003/3 <<http://unfccc.int/resource/docs/cop9/03.pdf>>.

¹¹⁷ FCCC/SBI/2006/7 <<http://unfccc.int/resource/docs/2006/sbi/07.pdf>>.

¹¹⁸ FCCC/SBI/2005/INF.7 <<http://unfccc.int/resource/docs/2005/sbi/eng/inf07.pdf>>.

¹¹⁹ See OPS3: Progressing toward environmental results, Third Overall Performance Study of the GEF, Executive version, June 2005 <http://www.thegef.org/MonitoringandEvaluation/MEPublications/MEPOPS/documents/Publications OPS3_lite.pdf>.

¹²⁰ FCCC/SBI/2004/6 <<http://unfccc.int/resource/docs/2004/sbi/06.pdf>>.

¹²¹ FCCC/SBI/2004/18 <<http://unfccc.int/resource/docs/2004/sbi/18.pdf>>.

Council of the GEF, the amount of funding necessary and available for the implementation of the Convention as defined in the MOU¹²².

COP 10 (December 2004) noted that although the previous replenishments had been successful, the COP had not made a formal assessment or communication of the amount of funds for the purpose of the joint determination that were necessary to assist developing countries. It was decided that the assessment report (the second report, mentioned above) should constitute an input from the COP to the fourth replenishment negotiations of the GEF Trust Fund (decision 9/CP.10). By the same decision, COP 10 also urged the GEF to ensure that adequate funding was available to enable developing countries to meet their commitments under the Convention. For the fourth replenishment of the GEF, COP 11, in its decision 5/CP.11, requested that the GEF include in its regular reports to the COP information on the “initial application of the Resource Allocation Framework to resources allocated in the fourth replenishment of the GEF that is operational from July 2006, focusing on the climate change focal area” (see Box 13.2). The GEF reports should also include information on “how the Resource Allocation Framework is likely to affect funding available to developing countries for the implementation of their commitments under the Convention”.

Box 13.2: The GEF Resource Allocation Framework¹²³

As one of the policy recommendations for the Third Replenishment of the GEF, which was finalized in November 2002, the GEF agreed to develop a system for allocating resources to countries based on the ability to deliver global environmental benefits and performance. In September 2005, the GEF Council adopted the Resource Allocation Framework (RAF), a new system for allocating resources to increase the impact of GEF funding on the global environment. The RAF allocates resources to a country based on its potential to generate global environmental benefits and its capacity, policies and practices to successfully implement GEF projects. The implementation of the RAF began in July 2006 and applies to resources for financing biodiversity and climate change projects. In this context, it should be noted that the RAF will be applied only to climate change funding made available through either the Least Developed Countries Fund (LDCF) or the Special Climate Change Fund (SCCF).

The allocations will be adjusted every two years to reflect changes in each country's capacity and potential to deliver global environmental benefits. Each country will work with the GEF implementing and executing agencies to develop project proposals to be financed.

The Council has expanded support for GEF to develop national focal points and national capacity to assist countries to better understand and make use of the RAF approach. Two new initiatives – Country Support Programme (CSP) for focal points and the GEF National Dialogue Initiative, which are expected to provide opportunities for stakeholders to seek clarification and provide feedback about the RAF.2006 – were organized by the GEF to explain the RAF and its operational aspects to all countries.

Operational experience with the RAF will be reviewed by the GEF Evaluation Office, which is an independent office, after two years of implementation.

¹²² FCCC/SBI/2004/10, paras 34-39 <<http://unfccc.int/resource/docs/2004/sbi/10.pdf>>.

¹²³ See <http://thegef.org/Operational_Policies/Resource_Allocation_Framework.html>.

Annex II Parties have to indicate in their national communications what new and additional financial resources they have provided. They also have to clarify how they have determined that such resources are indeed new and additional (see chapter 18). COP 7 (October–November 2001) required that Annex II Parties should report annually on their financial contributions (decision 7/CP.7) and that the COP should review these reports on annual basis.

Decision 7/CP.7 reaffirmed the need for predictable and adequate levels of funding to non-Annex I Parties, and requested Annex II Parties, as well as other Annex I Parties in a position to do so, to provide funding for developing country Parties through:

- increased GEF replenishment;
- the SCCF which was established under the decision 7/CP.7;
- the LDC Fund which was established under the decision 7/CP.7;
- bilateral and multilateral sources.

Decision 7/CP.7 further stipulated that appropriate ways of sharing the burden among Annex II Parties should be developed.

It also welcomed statements made by most Annex II Parties during the second part of COP 6 (July 2001) on their willingness to provide funding, including the declaration by a number of Annex II Parties that they would collectively contribute US\$410 million (€ 450 million) per year by 2005, with this level to be reviewed in 2008¹²⁴.

Relevant COP decisions:

- Decision 9/CP.1: Maintenance of the interim arrangements referred to in Article 21, paragraph 3, of the Convention
- Decision 10/CP.1: Arrangements between the Conference of the Parties and the operating entity or entities of the financial mechanism
- Decision 12/CP.2: Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility, and Annex: Memorandum of Understanding between the Conference of the Parties to the United Nations Framework Convention on Climate Change and the Council of the Global Environment Facility
- Decision 13/CP.2: Memorandum of Understanding between the Conference of the Parties and the Council of the Global Environment Facility: Annex on the determination of funding necessary and available for the implementation of the Convention¹²⁵

¹²⁴ Joint Political Declaration by the European Community and its Member States, together with Canada, Iceland, New Zealand, Norway and Switzerland. See FCCC/CP/2001/Misc.4 <<http://unfccc.int/resource/docs/cop7/misc04.pdf>>.

¹²⁵ The Annex itself can be found as part of decision 1/SBI.4, included in FCCC/SBI/1996/14 <<http://unfccc.int/resource/docs/1996/sbi/14.pdf>>. <<http://unfccc.int/resource/docs/cop7/misc04.pdf>>.

- Decision 11/CP.3: Review of the financial mechanism
 Decision 12/CP.3: Annex to the Memorandum of Understanding on the determination of funding necessary and available for the implementation of the Convention
 Decision 3/CP.4: Review of the financial mechanism, including Annex: Guidelines for the review of the financial mechanism
 Decision 7/CP.7: Funding under the Convention
 Decision 5/CP.8: Review of the financial mechanism
 Decision 9/CP.10: Assessment of funding to assist developing countries in fulfilling their commitments under the Convention
 Decision 5/CP.11: Further guidance to an operating entity of the financial mechanism

Annual reports of the GEF to the COP:

- FCCC/CP/1995/4
 FCCC/CP/1996/8
 FCCC/CP/1997/3
 FCCC/CP/1998/12 and Add. 1
 FCCC/CP/1999/3
 FCCC/CP/2000/3 and Add. 1 (part 1 and part 2)
 FCCC/CP/2001/8
 FCCC/CP/2002/4
 FCCC/CP/2003/3
 FCCC/CP/2004/6
 FCCC/CP//2005/3 and Corr. 1

13.B. COP guidance to the GEF

The COP has regularly given guidance to the GEF on the operation of the financial mechanism. This has been provided in the form of decisions explicitly titled “Guidance to the operating entity of the financial mechanism”. Guidance is also found in decisions addressing thematic areas of work, such as national communications from non-Annex I Parties, implementation of Article 4.8 and 4.9, capacity-building or technology transfer. In the following eight sections, guidance provided to the GEF by the COP is summarized by specific topic.

13.B.1. General guidance on funding policies

An important principle is that projects funded through the financial mechanism “should be country-driven and in conformity with, and supportive of, the national development priorities of each country” (decision 11/CP.1). In line with this, the COP advised the GEF that the use of national and regional experts or consultants would be preferable in the development and implementation of projects (decisions 2/CP.4, 6/CP.7). The COP also asked the GEF to support a country-team approach to increase national commitment to implementing the objective of the Convention. In 2002 COP 8 invited the GEF to promote consistency of its activities with national priorities and to integrate them into national planning frameworks, such as national sustainable development strategies and poverty reduction strategies (decision 5/CP.8).

Responding to the concerns of developing countries, COP 4 (November 1998) and COP 7 (October–November 2001) invited the GEF to simplify and expedite its procedures for approving and implementing projects, including disbursing funds (decisions 2/CP.4, 6/CP.7). The same COP decisions also encouraged the GEF to streamline its project cycle with a view to making project preparation simpler and more transparent. COP 8, in decision 5/CP.8, invited the GEF to continue its efforts to increase its administrative efficiency and cost-effectiveness. COP 10 similarly invited the GEF to work for further improvements in these areas¹²⁶.

The COP stressed that the application of the concept of agreed incremental costs should be transparent, flexible and pragmatic (decisions 11/CP.1, 11/CP.2, 2/CP.4, 5/CP.8). At COP 8, the GEF was invited to continue to make the concept of agreed incremental costs and global benefits more understandable.

The responses from the GEF on how it has followed the guidance of the COP are detailed in its annual reports to the COPs.

13.B.2. Funding for national programmes

COP 1 stated that the GEF should finance the formulation of “nationally determined programmes to address climate change issues which are in accordance with national development priorities and which should, as far as possible, be comprehensive”. This includes financing “capacity-building and all other activities related to the formulation, management and regular updating of these programmes”. The GEF should also be available to assist in the implementation of these national programmes, including supporting agreed mitigation activities (decision 11/CP.1). COP 4, in its decision 2/CP.4, stated that the GEF should assist developing countries with studies leading to the preparation of national programmes to address climate change, compatible with national plans for sustainable development.

13.B.3. Funding for adaptation

Adaptation to the adverse effects of climate change has been an increasingly important area of funding under the Convention (see chapter 12). COP 1, in decision 11/CP.1, distinguished three different stages for adaptation activities and their financing:

- **Stage I:** a planning stage which includes studies to identify particularly vulnerable countries or regions and policy options, and appropriate capacity-building;
- **Stage II:** measures, including further capacity-building, which may be taken to prepare for adaptation, as envisaged by Article 4.1(e), which provides for drawing up plans, such as integrated plans for coastal zone management, water resources and agriculture; and
- **Stage III:** measures to facilitate adequate adaptation, including insurance.

¹²⁶ FCCC/CP/2004/10, Annex III <<http://unfccc.int/resource/docs/cop10/10.pdf>>.

COP 1 called on the GEF to meet the agreed full costs of Stage I activities undertaken in the context of preparing national communications (decision 11/CP.1).

COP 4, with decision 2/CP.4, asked the GEF to fund adaptation activities under Stage II in particularly vulnerable countries and regions identified in Stage I. The Marrakesh Accords adopted at COP 7 considerably expanded the scope of funding for adaptation. This expansion included establishing three new funds, for all of which adaptation is an important aspect (see 13.C.2).

By decisions 5/CP.7 and 6/CP.7, COP 7 provided a list of adaptation-related activities to be funded by the GEF, in particular in LDCs and SIDS, including:

- strengthening the implementation of stage II adaptation activities;
- supporting enabling activities for assessments of vulnerability and adaptation;
- enhancing capacity to integrate adaptation into sustainable development programmes;
- promoting the transfer of adaptation technologies;
- establishing pilot or demonstration projects in adaptation planning¹²⁷;
- supporting capacity-building for preventive measures, planning and preparedness for disasters related to climate change;
- strengthening existing early warning systems for extreme weather events or establishing new ones.

COP 10 asked the GEF to make further resources available to implement these actions. Within the Buenos Aires programme of work on adaptation and response measures (1/CP.10), COP 10 also set out a new list of activities that contributed to the implementation of decision 5/CP.7 on the effects of response measures (see chapter 12). COP 10 also called on the GEF to report on its support to these activities at subsequent COP sessions. Furthermore, decision 8/CP.10 specifically asked the GEF to report on barriers, obstacles and opportunities that emerged in funding the activities identified in decision 1/CP.10. Decision 8/CP.10 also asked the GEF to expand support to non-Annex I Parties drawing up adaptation strategies as part of their national communication process. In addition, COP 10 invited the GEF to ensure adequate allocation of resources to implementing adaptation activities¹²⁸.

13.B.4. Funding for technology transfer

COP 4, in decision 2/CP.4, asked the GEF to provide funding, as a first step, to enable developing country Parties to identify and submit their priority technology needs to the COP. Following the adoption of the *Framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention* (Annex to decision 4/CP.7; see chapter 14) at COP 7, COP 8 asked the GEF to provide financial support for its implementation through its climate change focal area (i.e. from the GEF Trust

¹²⁷ In response to this guidance, the GRF established a \$ 50 million pilot in the climate change focal area: "Piloting an Operational Approach to Adaptation (SPA)"

¹²⁸ FCCC/CP/2004/10, Annex III <<http://unfccc.int/resource/docs/cop10/10.pdf>>.

Fund) and the newly established SCCF (decision 6/CP.8). COP 9 directed its requests towards support for enabling activities for assessments of technology needs (decision 4/CP.9).

13.B.5. Funding to address the impacts of response measures

COP 7, in the Marrakesh Accords, also addressed funding for the specific needs of countries with economies highly dependent on fossil fuels (Article 4.8(h); see also chapter 12).

The SCCF, established by decision 7/CP.7, aims to support activities to assist developing country Parties referred to under Article 4.8(h), in diversifying their economies as well as promoting adaptation activities, technology transfer and specified sectors (energy, transport, industry, agriculture, forestry and waste management). Although the COP has provided further guidance on this fund on adaptation and transfer of technologies (decision 5/CP.9), Parties have not yet agreed on detailed guidance on economic diversification.

Decision 5/CP.7 provided a list of related activities to be supported through the GEF Trust Fund, the SCFF, and other bilateral and multilateral sources. These activities cover:

- promoting investment for economic diversification;
- developing and transferring more climate-friendly technologies, such as non-energy uses of fossil fuels, advanced fossil fuel technologies and carbon capture or storage;
- expanding climate-friendly energy sources such as natural gas or biofuels; and
- building capacity.

By decisions 1/CP.10 and 8/CP.10, COP 10 invited the GEF to report to COP 12 in 2006 on the support it had provided for activities outlined in decision 5/CP.7, with a view to adopting a decision on further action at COP 13.

13.B.6. Funding to improve public awareness and education

COP 1 stated that emphasis “should also be placed on improving national public awareness and education on climate change and response measures” (decision 11/CP.1), which is addressed in Article 6 of the Convention. This was reaffirmed by COP 4 (decision 2/CP.4), COP 7 (decision 6/CP.7), which also mentioned community involvement and participation in climate change issues, and COP 9 (decision 4/CP.9). The issue was particularly highlighted at COP 8, with the adoption of the New Delhi work programme on Article 6 of the Convention (decision 11/CP.8; see chapter 16). Accordingly, decision 6/CP.8 asked the GEF to provide financial resources to non-Annex I Parties, in particular LDCs and SIDS, to support the implementation of this programme. By decisions 7/CP.10 and 8/CP.10, COP 10 urged the GEF to continue improving access to opportunities for funding activities related to Article 6, and to increase their visibility. The GEF was also requested to provide information on Article 6 activities in its regular reports to the COP. SBI 23 noted that the financial resources made available through various

means for implementing the New Delhi programme were not commensurate with the needs and concerns identified by Parties. It therefore urged the GEF, among others, to continue to support financially the implementation of activities relating to Article 6¹²⁹.

13.B.7. Funding for capacity-building

Guidance has always stressed the need to build capacity of developing countries to implement the Convention and cope with climate change. Guidance on capacity-building evolved from focus on capacity to prepare national communications (decisions 1/CP.11 and 11/CP.2) to more detailed guidance relating to other areas, such as systematic observation, technology transfer (decision 2/CP.4). By its decisions 10/CP.5 and 11/CP.5, the COP launched a process to address capacity-building in an integrated manner, resulting in frameworks for capacity-building being agreed at COP 7 for developing countries and countries with economies in transition (EITs) (decisions 2/CP.7 and 3/CP.7, respectively). The GEF was requested to provide financial support to activities outlined in these frameworks and to report on them. These requests were reiterated in decisions 6/CP.8 and 4/CP.9.

A first comprehensive review of these frameworks was completed at COP 10, which identified key factors that should be taken into account to increase effectiveness (decisions 2/CP.10 and 3/CP.10). The GEF was requested to take into account these key factors when supporting capacity-building activities in developing countries. The COP also asked the secretariat to disseminate, in cooperation with the GEF and its implementing agencies, an information document on best practices and lessons learned in capacity-building projects and programmes and to publish it on the UNFCCC web site. A second comprehensive review is planned in 2007 for EITs and in 2008 for developing countries.

At COP 10, the UNFCCC secretariat was also requested to prepare a synthesis report on the steps to be taken to monitor capacity-building activities in developing countries (pursuant to decision 2/CP.7). The report should suggest steps for monitoring that would contribute to the second comprehensive review of the capacity-building framework for developing countries in 2008. The monitoring of this framework will take into consideration the work of the GEF and its implementing agencies on performance indicators for the climate change focal area, and will also take into account the GEF monitoring and evaluation work in general.

13.B.8. Funding for preparation of national communications by non-Annex I Parties

The GEF is expected to fund the agreed full costs for the preparation of non-Annex I Parties' initial and subsequent national communications (see chapter 18) according to the guidelines and the format adopted by the COP¹³⁰, which have also to serve as policy guidance for the GEF (decisions 11/CP.2, 6/CP.7,

¹²⁹ FCCC/SBI/2005/23, para 74 <<http://unfccc.int/resource/docs/2005/sbi/eng/23.pdf>>.

¹³⁰ The first guidelines (not applicable anymore) were contained in the annex to decisions 10/CP.2. New guidelines were developed at COP 8 and are contained in the annex to decision 17/CP.8.

6/CP8). Decision 11/CP2 at COP 2 (July 1996) requested that the GEF “expedite the approval and the disbursement of financial resources to meet the agreed full costs incurred by the developing country Parties ... in particular for the initial and subsequent preparation of national communications of non-Annex I Parties”. According to decision 2/CP4 funding is to be provided to translate, reproduce, disseminate and make available initial national communications electronically. In decision 4/CP9, COP 9 asked the GEF to closely monitor the performance of the global project to support the preparation of national communications, including its effectiveness and efficiency.

COP decisions providing guidance to the GEF:¹³¹

- Decision 11/CP1: Initial guidance on policies, programme priorities and eligibility criteria to the operating entity or entities of the financial mechanism
- Decision 12/CP1: Report of the Global Environment Facility to the Conference of the Parties on the development of an operational strategy and on initial activities in the field of climate change
- Decision 10/CP2: Communications from Parties not included in Annex I to the Convention
- Decision 11/CP2: Guidance to the Global Environment Facility
- Decision 2/CP4: Additional guidance to the operating entity of the financial mechanism
- Decision 8/CP5: Other matters related to communications from non-Annex I Parties
- Decision 10/CP5: Capacity-building in developing countries (non-Annex I Parties)
- Decision 2/CP7: Capacity-building in developing countries (non-Annex I Parties)
- Decision 4/CP7: Development and transfer of technologies
- Decision 3/CP7: Capacity-building in countries with economies in transition
- Decision 5/CP7: Implementation of Article 4, paragraph 8 and 9, of the Convention
- Decision 6/CP7: Additional guidance to an operating entity of the financial mechanism
- Decision 5/CP8: Review of the financial mechanism
- Decision 6/CP8: Additional guidance to an operating entity of the financial mechanism
- Decision 11/CP8: New Delhi work programme on Article 6 of the Convention
- Decision 17/CP8: Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention
- Decision 3/CP9: Report of the Global Environment Facility to the Conference of the Parties

¹³¹ Decisions relating to institutional arrangements with the GEF can be found in section 13.A above. Decisions covering the newly established funds are given in the relevant sections under 13.C.2 below.

- Decision 4/CP.9: Additional guidance to an operating entity of the financial mechanism
- Decision 2/CP.10: Capacity-building for developing countries (Non-Annex I Parties)
- Decision 8/CP.10: Additional guidance to an operating entity of the financial mechanism
- Decision 5/CP.11: Further guidance to an operating entity of the financial mechanism

13.C. Sources of funding

Funding by the GEF through the financial mechanism has been provided from the GEF Trust Fund, which also operates in areas other than climate change (see section 13.C.1).

In 2001, COP 7 established three additional funds to be operated by the GEF, known as the Marrakesh funds. They are:

- the SCCF, under the Convention (see section 13.C.2.a);
- the LDC Fund, under the Convention (see section 13.C.2.b); and
- the Adaptation Fund, under the Kyoto Protocol (see Box 13.3).

In addition to the financial mechanism operated by the GEF, the Convention also refers to other channels of funding (Art. 11.5; see section 13.C.3).

13.C.1. The GEF Trust Fund

The GEF Trust Fund is the common funding resource for all six focal areas in which the GEF is active. Besides climate change, these are: biodiversity; international waters; protection of the ozone layer; persistent organic pollutants (POPs); and land degradation. The GEF has been designated therefore to operate not only the Convention’s financial mechanism, but also those of the CBD, the CCD and the Stockholm Convention on Persistent Organic Pollutants. It also operates in close connection with the Montreal Protocol and various regional and international water agreements.

The GEF Trust fund was established in 1994, and succeeded the Global Environment Trust Fund (GET) of the pilot phase (1991–1994). The World

	Period	Billion US\$
Pilot phase	1991–1994	0.86
1st Replenishment	1995–1998	2
2nd Replenishment	1998–2002	2.75
3rd Replenishment	2002–2006	3

¹³² FCCC/SBI/2004/18 <<http://unfccc.int/resource/docs/2004/sbi/18.pdf>>. It should be noted that the total received by the GEF Trust Fund was less than the total pledged.

Table 13.2: GEF Trust Fund allocations on Climate Change

GEF Phase	US\$ millions
Pilot phase	280.6
GEF I	507.0
GEF 2	667.2
GEF 3	600.7
TOTAL	2055.5

Source: GEF secretariat.

Bank is Trustee of the GEF Trust Fund. Donor nations commit money every four years through a process called GEF replenishment. The Trust Fund has had four replenishments (see Table 13.1) so far.

GEF assistance takes the form of projects conducted by the three GEF implementing agencies: UNEP, the UNDP, and the World Bank. Since 1999, the GEF has also expanded opportunities for so-called “Executing Agencies” (in particular Regional Development Banks (RDBs)) to implement projects.

Since 1991, the GEF has committed approximately US\$1.98 billion in grants from its Trust Fund to climate change activities (as of August 2005). During the same period, it has leveraged an additional amount of more than US\$10.4 billion through co-financing from bilateral agencies, recipient countries and the private sector. Co-financing of GEF projects thus exceeded GEF’s own funding by a factor of more than five.

13.C.1.a. Programme categories, operational programmes and strategic priorities

The GEF’s Operational Strategy¹³³ of 1995 formulates basic operational principles and strategic considerations. It also defines three broad, interrelated programme categories relevant to all focal areas, and lays down initial operational strategies for each focal area. A new operational strategy is being written in order to reflect the addition of two new focal areas (persistent organic pollutants, and land degradation) which the GEF Assembly approved in 2002.

Each GEF-funded project falls under one of the three **programme categories**:

- operational programmes;
- enabling activities; and
- short-term response measures.

Operational programmes (OPs) are long-term frameworks for the design, implementation, and coordination of a set of projects, which are specific to each focal area. Currently 4 of 15 OPs lie within climate change (see Box 13.3). Another one, OP12 on integrated ecosystem management, which was established in 1999, is a multi-focal area programme that addresses climate change, among other issues. Its aims are to support comprehensive ecosystem management interventions that integrate ecological, economic and social goals. This may include, for instance, activities that conserve biological diversity and, at the same time, increase the storage of GHGs in ecosystems.

Enabling Activities (EAs), as defined in the Operational Strategy, “are a means of fulfilling essential communication requirements to a Convention, provide a

¹³³ <http://thegef.org/Operational_Policies/Operational_Strategy/op_stat/op_stat.html>.

Box 13.3: GEF operational programmes in the climate change focal area

OP 5: Removal of barriers to energy efficiency and energy conservation. The purpose is to remove barriers to the large-scale application of energy-efficient technologies and to promote more efficient energy use to reduce GHG emissions. Such measures include promoting demand-side management and strengthening administrative capacities. The programme applies to activities that will be self-sustaining once barriers have been identified and removed. Examples include the improvement of energy efficiency in public services, industry and buildings, the promotion of energy-efficient lighting products and household appliances, and the development of strategies to increase overall efficiency.

OP 6: Promoting the adoption of renewable energy and reducing implementation costs. The purpose is to remove barriers to the use of commercial or near-commercial renewable energy technologies, and to reduce the high costs of implementing renewable energy technologies. High costs result from lack of practical experience, initial low-volume markets or dispersed application. Projects under this category include photovoltaics, biomass, methane recovery from waste, wind power, small-scale hydropower, and geothermal energy.

OP 7: Reducing the long-term costs of low greenhouse gas emitting energy technologies. The purpose is to reduce the cost of technologies that have not yet become widespread least-cost alternatives. By promoting the application of specified technologies through learning and economies of scale, the costs of manufacture will become commercially competitive. The programme therefore applies to technologies where costs are expected to drop greatly with economies of scale. Examples are solar-thermal power generation, advanced biomass power and fuel technologies, fuel cells, and advanced fossil fuel technologies.

OP 11: Promoting environmentally sustainable transport. OP 11 was added in 1999 to promote a long-term shift towards sustainable transport with low emissions. The initial focus is on ground transport such as more efficient and less polluting forms of public and freight transport, non-motorized transport, vehicles operated by fuel-cell or battery, internal combustion engine-electric hybrid buses and advanced technologies for converting biomass feedstock into liquid fuels. Projects funded also include urban transport plans which encompass, for example, improvements in public transport and cycling opportunities, land-use policies that generate low levels of transport and enhanced planning coordination.

basic and essential level of information to enable policy and strategic decisions to be made, or assist planning that identifies priority activities within a country". They include preparation of information on "inventories, compilation of information, policy analysis, and strategies and action plans". EAs "will normally qualify for full cost funding when they are directly related to agreed global environmental benefits and consistent with the Convention's guidance". Under the Convention, agreed full cost funding is provided for developing country Parties' activities linked to their national communications (Article 4.3). The GEF has established several options for expedited funding of EAs on a basis of agreed full costs (see section 13.C.1.b).

Short-term response measures are projects that do not fit into either of the other two categories, but are considered high priority and expected to yield short-term benefits at low costs (less than \$10/ton of carbon equivalent avoided). They include projects aimed solely at reducing the net emissions of GHGs.

In 2003, the GEF introduced "strategic priorities" for each focal area. They do not replace the existing OPs but are an additional category to ensure a more focused allocation of funding. Since then project proposals submitted to the GEF have been required to match one of the strategic priorities, in addition to an OP or one of the two other programme categories. The

introduction of strategic priorities was part of the new strategic business planning approach that was first applied in the *GEF Business Plan for the Financial Years 2004–2006*¹³⁴.

The strategic priorities in climate change are:

- promoting energy-efficient buildings and appliances;
- promoting industrial energy efficiency;
- promoting retrofitting of power plants;
- promoting grid electricity from renewable sources;
- promoting renewable energy for rural energy services;
- supporting the development of new, low-GHG-emitting energy technologies;
- facilitating sustainable mobility in urban areas;
- piloting a strategic approach to adaptation.

In addition to these priorities, cross-cutting strategic priorities are also relevant. These are:

- capacity-building (including EAs);
- integrated ecosystem management, a multi-focal area programme; and
- the Small Grants Programme (see section 13.C.1.b).

13.C.1.b. Funding options¹³⁵

Proposals for projects to be funded by the GEF can be submitted by governments, national institutions, local communities, academic institutions, international organizations, NGOs and private sector entities. They have to be endorsed by the GEF **Operational Focal Point**, a government official responsible for GEF activities within their country. There are two types of focal points: political focal points are responsible for governance issues and policies, and communications with their constituencies; operational focal points are responsible for programme coordination of GEF projects and other operational activities within the country. While all member countries have political focal points, only countries eligible for GEF funding are expected to designate operational focal points.

Full-Size Projects (FSPs) go through each step of the GEF project cycle: concept development, preparation, appraisal, approval and implementation supervision, and closing and evaluation. FSPs typically take 12–18 months to develop, while their implementation usually runs from three to six years.

FSPs need approval by the GEF Council. To be eligible, the project must satisfy the requirements of a strategic priority (see section 13.C.1.a above), and must

¹³⁴ See *GEF Business Plan FY04-06*, GEF/C.21/9.

<http://thegef.org/Documents/Council_Documents/GEF_C21/C.21.9_GEF_Business_Plan_FY04-06.pdf>, and *Strategic Business Planning: Direction and Targets*, GEF/C.21/Inf.11, April 2003.

<http://thegef.org/Documents/Council_Documents/GEF_C21/C21.Inf.11-_Strategic_Business_Planning.pdf>.

¹³⁵ An overview of current funding modalities is provided in: *GEF Project Cycle: An Update* GEF/C.22/INF.9, and Annexes, available on <http://thegef.org/Documents/Council_Documents/council_documents.html>.

fit into either an OP or the category of short-term response measures. EAs over a certain volume (see below) are also treated as FSPs.

In addition to FSPs, the GEF has established several types of funding options under expedited procedures, subject to specific financial ceilings:

- Medium-sized Projects;
- Enabling Activities; and
- the Small Grants Programme.

Medium-sized Projects were introduced in 1996. The ceiling for the GEF grant is US\$ 1 million. The project should also satisfy the requirements of a strategic priority and either an operational programme or short-term response measures. Project approval has been delegated by the GEF Council to the GEF CEO.

EAs include support for the preparation of national inventories and communications, strategies, and action plans. For climate change, three types of projects can currently be processed under expedited procedures, with approval by the CEO. Project proposals exceeding the ceiling are processed as FSPs. Apart from the preparation of NAPAs, which is funded from the LDC Fund (section 13.2.b), these types of projects are:

- **National communications from non-Annex I Parties** (see chapter 18.D), which are eligible for funding up to a ceiling of US\$405,000 per country plus an additional US\$15,000 per country for self-assessment in preparation for the project proposal¹³⁶; and
- **National capacity needs self-assessments** (NCSAs; see chapter 17.C), which are eligible for funding up to a ceiling of US\$200,000¹³⁷.

The **Small Grants Programme (SGP)**, launched in 1992, offers grants up to US\$50,000 for measures that represent local contributions to the preservation of the global environment. SGP activities must fit into one of the GEF OPs. Projects are selected nationally and do not require Council approval. The SGP is managed solely by the UNDP, not by the other implementing agencies¹³⁸. During the reporting period 2004–2005, the SGP supported 174 community-based climate change projects totalling some US\$4.59 million in GEF financing, matched with US\$4.61 million of co-financing for a total value of US\$9.20million¹³⁹.

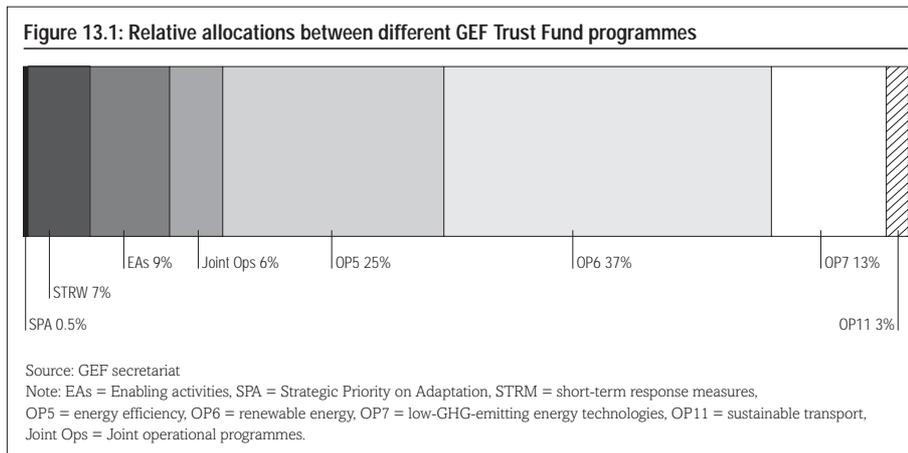
In addition, the GEF often provides financing to assist countries to develop a project concept into a project proposal. Funding for project preparation is

¹³⁶ *Operational Procedures for the Expedited Financing of National Communications from Non-Annex I Parties*. GEF/C.22/Inf.16 <http://thegef.org/Documents/C.21.Inf.16_Expedited_Financing_of_National_CommunicationsFINAL.doc>, November 2003.

¹³⁷ *Operational Guidelines for Expedited Funding of National Self Assessments of Capacity Building Needs*. <http://www.gefweb.org/Documents/enabling_activity_projects/documents/Operational_Guidelines_-_English.pdf>, September 2001.

¹³⁸ For further information, see <<http://sgpundp.org>>.

¹³⁹ See para 12 of FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>.



available in three categories or “blocks”. This is managed through the **Project Preparation and Development Facility** (PDF). While Block A grants can be provided for the preparation of both full- and medium-sized projects, Block B and C grants are only available for full-sized projects. **Block A grants** (up to US\$25,000) fund the very early stages of project or programme identification, and are approved through GEF’s implementing agencies. **Block B grants** (up to US\$350,000 for single-country projects and up to US\$700,000 for multiple-country projects) fund information gathering necessary to complete project proposals and provide necessary supporting documentation. These grants are approved by the GEF CEO. **Block C grants** (up to US\$1 million) are provided in exceptional cases of larger projects, where a proposal has already been approved by the GEF Council but additional financing is required to complete technical design and feasibility work.

13.C.2. The Marrakesh Funds

As noted in section 13.C, the Marrakesh Accords established three new funds: the **SCCF** and the **LDC Fund**, both under the Convention, and the **Adaptation Fund (AF)**, under the Kyoto Protocol.

The SCCF and the LDC Fund are managed by the GEF, as an entity operating the financial mechanism of the Convention. They are expected to operate independently of the GEF Trust Fund. The World Bank will be the Trustee of the two funds. The operational policies, procedures and governance structure of the GEF will apply to the operation of the two funds, unless the COP determines that other arrangements should be made¹⁴⁰.

Parties are still negotiating how to put the Adaptation Fund into operation, including how to manage it. A decision is expected by COP/MOP 2 (November 2006).

¹⁴⁰ Arrangements for the Establishment of the New Climate Change Funds. GEF/C.19/6. <http://thegef.org/Documents/Council_Documents/GEF_C19/gef_c19.html>.

13.C.2.a. Special Climate Change Fund

The SCCF has the objective of financing activities complementary to those funded within the GEF's climate change focal area and by bilateral and multilateral funding. In its decision (7/CP.7), COP 7 determined that the SCCF should serve as a catalyst to leverage additional resources from bilateral and other multilateral sources. It designated four areas of action:

- adaptation¹⁴¹;
- transfer of technologies¹⁴²;
- energy, transport, industry, agriculture, forestry and waste management; and
- activities to assist those developing country Parties that depend greatly on fossil fuels in diversifying their economies¹⁴³.

COP 9 decided that adaptation activities were to have top priority for funding and that technology transfer and associated capacity-building should be the other essential area for the SCCF (decision 5/CP.9). COP 9 did not develop the other two areas of action but launched a further consultation process. Following guidance from COP 9 on the SCCF, the GEF Council approved a programme outlining plans for using SCCF resources¹⁴⁴.

COP 9 reaffirmed the relevant provisions of decision 5/CP.7 on the funding of adaptation activities, in decision 5/CP.9. This included support for:

- prompt implementation of adaptation activities in areas such as water resources management; land management; agriculture; infrastructure development; fragile ecosystems; and integrated coastal zone management;
- monitoring, related forecasting and the development of early warning systems to improve the control and prevention of disease related to climate change;
- capacity-building to address disasters related to climate change, including contingency planning and preparedness; and
- national and regional centres and information networks for rapid response to extreme weather events.

The same decision outlined the following priority areas for technology transfer activities, in accordance with decision 4/CP.7:

- implementation of the results of technology needs assessments;
- technology information;
- capacity-building;

¹⁴¹ In accordance with paragraph 8 of Decision 5/CP.7, which outlines types of adaptation-related activities to be funded by the SCCF and/or the Adaptation Fund.

¹⁴² In accordance with Decision 4/CP.7.

¹⁴³ With reference to Article 4.8(h) and in accordance with Decision 5/CP.7 (with particular relevance of part III "Impact of the implementation of response measures").

¹⁴⁴ Programming to implement the guidance for the SCCF adopted by the COP to the UNFCCC at its ninth session GEF/C.24/12 <http://thegef.org/Documents/Council_Documents/GEF_C24/gef_c24.html>.

- enabling environments.

By the same decision, COP 9 invited the GEF to mobilize resources to put the fund into operation without delay.

In 2004, COP 10 welcomed the outcome of the first pledging meeting of potential donors to the SCCF; nine donors had pledged a total of US\$34.6 million, of which US\$33 million were allocated to adaptation. It urged the GEF to continue its efforts to mobilize additional resources to support the implementation of eligible activities under the SCCF, while continuing to ensure financial separation between the SCCF and the other funds it operated. The Parties could not reach agreement on additional guidance to the GEF for the operation of the SCCF at COP 10. As the discussion on this item was not concluded either at SBI 22 (May 2005) or at SBI 23 (November–December 2005), it was to be further discussed at SBI 24 (May 2006).

As of June 2006, the total receipts to the SCCF amounted to US\$36.7 million, of which the GEF Council earmarked US\$34 million for adaptation and US\$2.7 million for technology transfer¹⁴⁵.

Relevant COP decisions:

- Decision 4/CP.7: Development and transfer of technologies (decisions 4/CP.4 and 9/CP.5)
- Decision 5/CP.7: Implementation of Article 4, paragraph 8 and 9, of the Convention (decision 3/CP.3 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol)
- Decision 7/CP.7: Funding under the Convention
- Decision 7/CP.8: Initial guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund
- Decision 5/CP.9: Further guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Special Climate Change Fund

13.C.2.b. Least Developed Countries Fund

The LDC Fund was established by decisions 5/CP.7 and 7/CP.7 in order to support a special work programme to assist LDCs (see chapter 12). Drawing up NAPAs is part of this programme.

By decision 27/CP.7, COP 7 requested the GEF to use the LDC Fund, as a first step, to meet the agreed full costs of preparing NAPAs. The decision called for simplified, transparent and streamlined procedures for the operation of the fund and arrangements for expedited access to the fund by LDCs. The GEF issued *Operational Guidelines for Expedited Funding for the Preparation of National Adaptation Programmes of Action by Least Developed Countries* in April 2002 to facilitate the implementation of the decision.

¹⁴⁵ *Status Report on the Climate Change Funds*. GEF/C.27/9. <http://thegef.org/Documents/Council_Documents/GEF_C27/C.27.9_Status_Report_on_the_Climate_Change_Funds.pdf>. 17 October 2005.

Funding for NAPAs is provided on the basis of full agreed costs under the programme category of EAs. The expedited procedures referred to in the guidelines apply to projects up to US\$200,000 per country; projects that exceed this amount are processed according to the standard procedures of the GEF project cycle. Decision 28/CP.7, which anticipated the outcome of this process, stated that the priority activities identified in NAPAs would be made available to the GEF and other sources of funding, so that financial resources could be provided to implement them.

COP 8 asked the GEF to support financially four regional workshops in 2003, which were dedicated to assisting LDCs in their NAPA preparation (decision 8/CP.8). By decision 6/CP.9, COP 9 called on the GEF to support the implementation of NAPAs as soon as possible after their completion and specified the elements to be taken into account when developing operational guidelines for such funding. In 2004, COP 10 welcomed both the support provided for the preparation of NAPAs and the preparations made by the GEF to assist their implementation. However, the COP noted with concern that only one NAPA had so far been completed and invited the GEF, its implementing agencies and LDCs to work closely to expedite the process¹⁴⁶. COP 11, in its decision 3/CP.11, agreed on provisions to put the LDC Fund into operation to support the implementation of urgent and immediate activities identified in NAPAs. The principles agreed upon were a country-driven approach, the integration of adaptation measures into national strategies for development and poverty reduction, and a learning-by-doing approach. The full cost funding was to be provided to meet the additional costs of adaptation activities as prioritized in NAPAs. The GEF was also requested to develop a co-financing scale for supporting NAPA activities that were not supported through full cost funding. Finally, the decision stated that, given the unique circumstances of LDCs, the operation of the LDC Fund should not set a precedent for other funding arrangements under the Convention. The COP asked the SBI to review the experience gained, in particular in accessing funds from the LDC Fund, at its twenty-sixth session (May 2007) and decided to assess progress in the implementation of this decision in 2008.

In response to the COP mandates a *Programming paper for funding the implementation of NAPAs under the LDC trust fund* was adopted by the GEF Council in June 2006. It was prepared in consultation with relevant constituencies, including through a LDC/GEF workshop organized by the GEF in April 2006 in Dhaka, Bangladesh.

As of June 2006, 13 Annex II countries had contributed to the LDC Fund. The total receipts of the Fund amounted to US\$41.8 million. Of this amount, US\$11.3 million has been allocated to NAPA preparation. Consequently, net funds available for implementation of projects identified in the NAPAs amount to US\$30.5 million. Projects for the preparation of NAPAs have been approved

¹⁴⁶ FCCC/CP/2004/10, Annex III <<http://unfccc.int/resource/docs/cop10/10.pdf>>.

for 44 countries¹⁴⁷. In addition, new contributions of \$45.8 million were pledged at a donor meeting for the LDCF held in Copenhagen, Denmark, in April 2006. The most recent pledge of \$12.6 million, was announced by France at the GEF Council meeting in June 2006. This brings the total amount of funds mobilized for the LDCF to over \$100 million.

Relevant COP decisions:

- Decision 5/CP.7: Implementation of Article 4, paragraph 8 and 9, of the Convention (decision 3/CP.3 and Article 2, paragraph 3, and Article 3, paragraph 14, of the Kyoto Protocol)
- Decision 7/CP.7: Funding under the Convention
- Decision 27/CP.7: Guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Least Developed Countries Fund
- Decision 28/CP.7: Guidelines for the preparation of national adaptation programmes of action. Establishment of the least developed countries expert group

Box 13.4: Adaptation Fund

COP 7, by its decision 10/CP.7, established the Adaptation Fund. The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP), by its decision 28/CMP.1, confirmed the decision by COP 7 and adopted initial guidance for the operation of the Adaptation Fund as follows:

- (a) The Adaptation Fund is to finance:
- (i) concrete adaptation projects and programmes in developing country Parties that are Parties to the Kyoto Protocol;
 - (ii) activities identified in decision 5/CP.7, paragraph 8.
- (b) The operation of the Adaptation Fund shall be guided by:
- (i) a country-driven approach;
 - (ii) sound financial management and transparency;
 - (iii) separation from other funding sources;
 - (iv) a learning-by-doing approach.

The COP/MOP is to further decide on specific policies, programme priorities and eligibility criteria for the Adaptation Fund at its second session (November 2006). It will also discuss possible arrangements for managing the Fund. In order to assist the COP/MOP in taking this decision, Parties have made submissions and a workshop to promote an exchange of views was held in May 2006 in Edmonton, Alberta, Canada.

The SBI started considering this issue at its twenty-fourth session (May 2005) and agreed on a draft decision on the Adaptation Fund with a view to preparing a recommendation for the COP/MOP at its twenty-fifth meeting.

The Adaptation Fund is to be financed from a share of proceeds (2 per cent) from certified emission reductions (CERs) from CDM project activities and from other sources of funding.

¹⁴⁷ *Status Report on the Climate Change Funds*. GEF/C.28/4/Rev.1 <http://thegef.org/Documents/Council_Documents/GEF_C27/C.27.9_Status_Report_on_the_Climate_Change_Funds.pdf>. 17 October 2005.

- Decision 8/CP.8: Guidance to an entity entrusted with the operation of the financial mechanism of the Convention, for the operation of the Least Developed Countries Fund
- Decision 6/CP.9: Further guidance for the operation of the Least Developed Countries Fund
- Decision 3/CP.11: Further guidance for the operation of the Least Developed Countries Fund

13.C.3. Other sources of funding

Article 11.5 of the Convention states that in addition to the Convention's financial mechanism, the developed country Parties may also provide, and developing country Parties may avail themselves of, financial resources for the implementation of the Convention through bilateral, regional and other multilateral channels. COP decisions have regularly encouraged both donors and recipients to use such funding mechanisms. In addition to regular calls by the COP on multilateral, regional and bilateral channels to support funds and activities to implement the Convention, these sources have also been encouraged to support the needs of LDCs with regard to training in negotiating skills and language (see decision 8/CP.8).

The Reporting Guidelines on National Communications require Annex I Parties to provide any information on any financial resources they have provided to facilitate implementation of the Convention¹⁴⁸. However, it remains difficult to determine the total amount of funding through the various channels. A study compiled by the OECD Development Assistance Committee (DAC) for the 2002 Johannesburg World Summit on Sustainable Development¹⁴⁹ found that in the years 1998–2000, DAC members had given an annual average of US\$ 2.7 billion in bilateral aid for climate change. Such aid represented 7.2 per cent of all DAC members' bilateral ODA commitments. According to the third national communications of Annex II Parties, between 1997 and 1999, they had provided more than US\$10.2 billion (apart from their contributions to the GEF) for activities related to climate change in developing countries. Although mitigation received the greatest level of support, the share of adaptation activities increased over that period¹⁵⁰.

Several international financial institutions, such as the World Bank and the regional development banks, have important investment portfolios involving projects in sectors such as energy and carbon sequestration that contribute to the efforts of developing countries to implement the Convention. Between 1990 and 2004, the World Bank approved approximately US\$5 billion in loans and credits, and leveraged an additional US\$15 billion of financing from various sources, for renewable energy and energy efficiency.

¹⁴⁸ FCCC/CP/1999/7 <<http://unfccc.int/resource/docs/cop5/07.pdf>>. See chapter 18.B.

¹⁴⁹ *Aid Targeting the Objectives of the Rio Conventions 1998-2000. A contribution by the DAC Secretariat for the information of participants at the World Summit for Sustainable Development in Johannesburg in August 2002* OECD 2002 <<http://www.gm-unccd.org/field/Analyses/OECDaid2.pdf>>.

¹⁵⁰ FCCC/SBI/2004/18 <<http://unfccc.int/resource/docs/2004/sbi/18.pdf>>.

Moreover, the African, Asian and Inter-American Development Banks, as well as the European Bank for Reconstruction and Development, increasingly have energy portfolios supporting projects related to renewable and other low-carbon sources of energy, as well as energy efficiency. They are thus contributing to lowering GHG emissions¹⁵¹.

A range of United Nations organizations and programmes are supporting activities related to climate change in developing countries. These include the UNDP, UNEP, UNIDO, FAO, WHO and WMO. Information provided by these institutions revealed that they possessed adequate technical and institutional capacities to support activities in the areas of mitigation, adaptation, technology transfer and capacity-building, but have very limited core funds at their disposal apart from those provided by the GEF¹⁵².

Other sources of funding in sectors and technologies which need more investment to help mitigate climate risks include private capital flows, particularly foreign direct investment (FDI) from Annex II Parties. However it is not known how much of this FDI truly contributes to mitigate climate change. The magnitude of capital flows involved underscores the importance of the role of other sources of funding, in particular the GEF, in helping leverage larger amounts of private capital into mitigating climate change. With regard to increased private investment to reduce GHG emissions, the CDM offers encouraging perspectives¹⁵³.

¹⁵¹ FCCC/SBI/2004/18 <<http://unfccc.int/resource/docs/2004/sbi/18.pdf>>.

¹⁵² FCCC/SBI/2004/18 <<http://unfccc.int/resource/docs/2004/sbi/18.pdf>>.

¹⁵³ For updated information, see <<http://cdm.unfccc.int/>>.

Developing and transferring technologies

Promoting the effective development and transfer of environmentally sound technologies is critical in enabling developing countries to pursue their objectives for sustainable development in a climate-friendly way. The Convention therefore stipulates that all Parties are to promote and cooperate in developing, applying and diffusing, including transferring, technologies, practices and processes that control, reduce or prevent certain anthropogenic emissions of GHGs in all relevant sectors (Article 4.1(c)). According to Article 4.3, Annex II Parties are to provide financial resources for the transfer of technology. Article 4.5 urges developed country Parties and Annex II Parties to take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly to developing countries, to enable them to implement the provisions of the Convention. These commitments are echoed in similar provisions under the Kyoto Protocol (Article 10 and Article 11).

Annex II Parties are also required to report in their national communications on their activities for transferring technology and for financing the access of developing countries to clean technologies (Article 12.3; see chapter 18).

Each session of the COP has also taken decisions to promote the development and transfer of environmentally sound technologies.

This chapter addresses the framework for technology transfer (14.A), the Expert Group on Technology Transfer (EGTT; 14.B), the activities of Parties (14.C) and the secretariat (14.D), and, finally, TT:CLEAR, the technology information system (14.E).

14.A. Framework for technology transfer

Technology transfer was given new impetus at COP 4 in 1998, when, as part of the Buenos Aires Plan of Action, Parties decided to launch a consultative process on the subject, led by the Chairman of the SBSTA. Decision 4/CP.4 stated that this process should consider the issues and questions set out in an annex to the decision, plus any others subsequently identified by Parties. This process aimed to produce recommendations for achieving agreement on a “**framework for meaningful and effective actions**” to enhance the implementation of Article 4.5 of the Convention. It did successfully narrow differences and generate understanding. It also produced much useful information and many ideas on developing a framework from technical papers and country papers presented at regional workshops, and from the IPCC report on Methodological and technological issues in technology transfer¹⁵⁴. The framework was agreed at COP 7 in 2001, as part of the Marrakesh Accords and is contained in the annex to decision 4/CP.7.

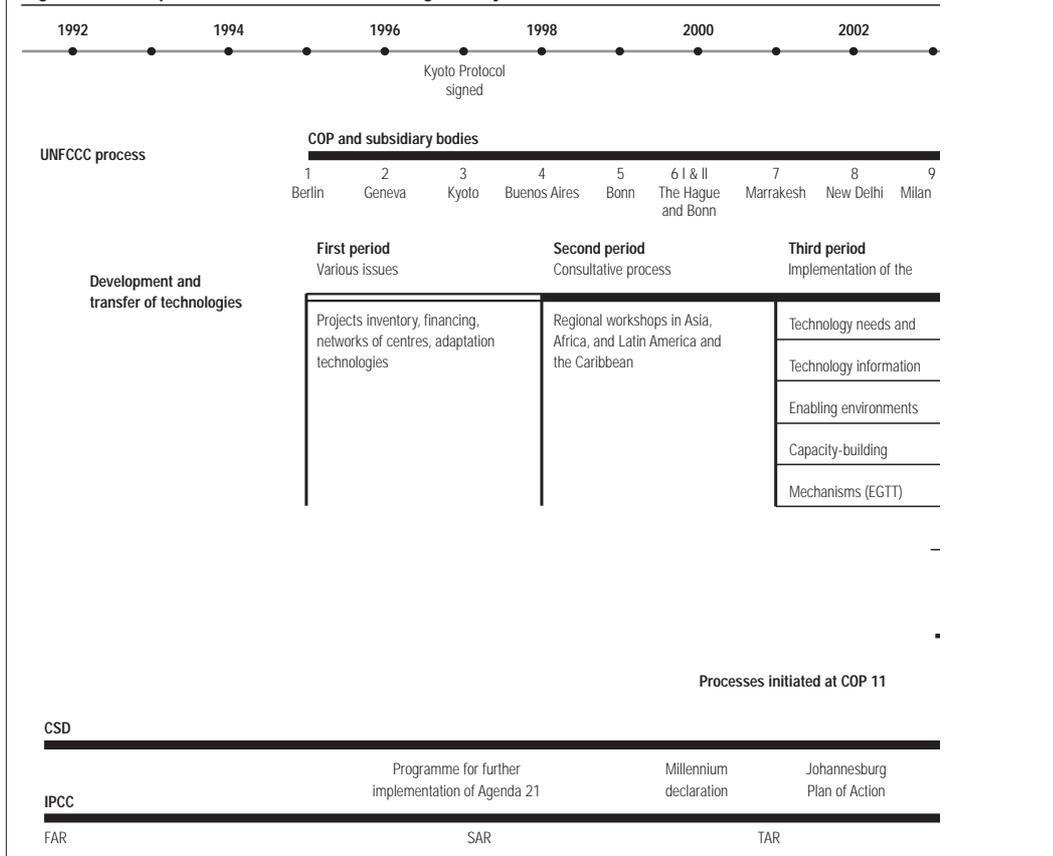
The framework aims to develop actions to implement Article 4.5 by increasing and improving the transfer of environmentally sound technologies and know-how. Parties agreed this required a country-driven, integrated

¹⁵⁴ <<http://www.grida.no/climate/ipcc/tectran/index.htm>>.

approach, at the national and sectoral levels. They also agreed that cooperation between various stakeholders was needed, namely the private sector, governments, the donor community, bilateral and multilateral institutions, NGOs and academic and research institutions. The framework covers five key themes, namely:

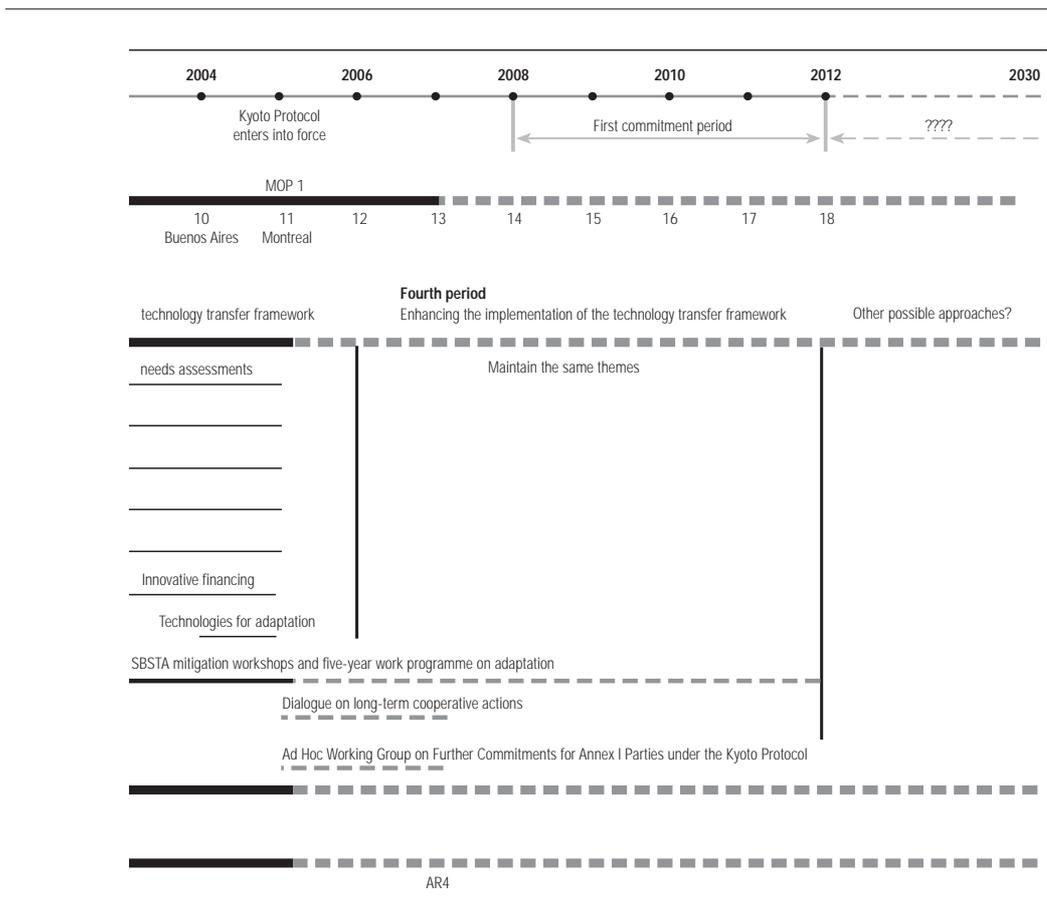
1. **Technology needs and needs assessments.** These are defined as a set of country-driven activities to identify the priority areas for developing country Parties and Parties with economies in transition where technology needs to be transferred to be used for mitigating climate change and adapting to its adverse effects. These activities involve different stakeholders in consultations to identify the barriers to technology transfer and measures to address them through sectoral analyses. Targeted activities include hard and

Figure 1: Development and transfer of technologies: major milestones



soft technologies and should result in a portfolio of environmentally sound technology projects and programmes.

2. **Technology information.** This includes assisting the flow of information between the different stakeholders. The means to do this include hardware, software and networking. The result should be an efficient information system providing access to technical, economic, environmental and regulatory information and supporting the transfer of environmentally sound technologies.
3. **Enabling environments.** This focuses on government actions, such as trade policies, removing technical, legal and administrative barriers to technology transfer, sound economic and market policies, regulatory frameworks and transparency. It aims to improve the effectiveness of the environments in which technology is transferred in both Annex I and non-Annex I Parties



4. **Capacity-building.** This is a process that develops and strengthens existing scientific and technical skills, capabilities and institutions, particularly in developing country Parties. The process aims to enable these Parties to assess, adapt, develop and manage environmentally sound technologies. Capacity-building must be country-driven, address specific needs and conditions and reflect national sustainable development strategies, priorities and initiatives. It is to be undertaken in accordance with the provisions of the Convention. Areas targeted include training in the use of environmentally sound technologies and in developing technology needs assessments and raising awareness of technologies. In addition capacity-building can cover developing endogenous technologies in developing countries, through training and institutional development, improving adaptation to the adverse effects of climate change and strengthening systematic observation relevant to climate change.
5. **Mechanisms for technology transfer.** These help to support financial, institutional and methodological activities: (a) to improve the coordination of all the stakeholders in different countries and regions; (b) to engage them in efforts to accelerate the development and diffusion, including transfer, of environmentally sound technologies, know-how and practices to and between Parties other than developed country Parties, particularly developing country Parties, through cooperation and partnerships (public/public, private/public and private/private); and (c) to support the development of projects and programmes to support such ends.

The framework also covers actions that echo the themes, including:

- assessing country-specific technology needs;
- developing methodologies for technology needs assessments, including publishing a simplified and user-friendly handbook;
- developing a clearing house of information on technology transfer, including a network of technology information centres, that ensure easy access to inventories of environmentally sound and economically viable technologies and know-how;
- creating enabling environments to improve the effectiveness of transfer, including identifying and removing barriers, exploiting opportunities for positive incentives and integrating technology transfer into national policies;
- listing capacity-building activities needed to improve technology transfer under the Convention, paying attention to the coordination, sustainability and effectiveness of such activities; and
- organizing meetings and expert workshops.

Decision 4/CP.7 stipulated that funding to implement the framework was to be provided through the GEF climate change focal area (see chapter 13) and the SCCF (see chapter 13). The developed country Parties were to provide support for organizing the workshops and expert meetings required under the framework and subsequently mandated by the SBSTA, as well as for the work programme of the EGTT. Intergovernmental organizations, such as UNDP and UNEP, other bodies, such as the Climate Technology Initiative, and the private

sector are also active partners in implementing the activities recommended under the framework, including the work of the EGTT.

Future work on implementing the framework will be considered at SBSTA 25 (November 2006) drawing on recommendations by the EGTT, existing technology-based international activities, partnerships and initiatives, and submissions by Parties (see section 14.B).

14.B. Expert Group on Technology Transfer (EGTT)

The EGTT (see chapter 2) was established by COP 7 in accordance with decision 4/CP.7. It comprises 20 experts, including three members from each of the regions of Africa, Asia and the Pacific, and Latin America and the Caribbean, one from the SIDS, seven from Annex I Parties and three from relevant international organizations. Its objectives are to facilitate the implementation of Article 4.5 of the Convention, to support and advance technology transfer activities and to make recommendations to this end to the SBSTA. The EGTT reports annually to the SBSTA and proposes a programme of work for the following year; it meets twice a year in conjunction with SBSTA sessions. COP 12 (November 2006) will review its progress and its terms of reference.

COP 8 (decision 10/CP.8) and COP 10 welcomed the progress the EGTT had made. By decision 6/CP.10, COP 10 asked the EGTT to put forward recommendations for improving the implementation of Article 4.5, with a view to providing input to its review at COP 12. The terms of reference for preparing the recommendations were set out in May 2005 by SBSTA 22. They ask the EGTT to provide recommendations on, for example, innovative public and/or private partnerships and cooperation with the private sector; ways to improve cooperation with relevant conventions and intergovernmental processes, medium- and long-term strategies for improving the implementation of the framework laid down in decision 4/CP.7¹⁵⁵, and ways to promote joint development of technologies for mitigation and adaptation by Annex II Parties and non-Annex I Parties. The recommendations should also extend to a possible revision of the key themes in the framework. Decision 6/CP.11 at COP 11 further invited Parties to submit their views on the status and continuation of the EGTT. These will be collated by the secretariat and also constitute input to the review. SBSTA 23 endorsed the proposed work programme of the EGTT for 2006 as set out in its annual report for 2005¹⁵⁶. It asked the EGTT to report to SBSTA 25 on next steps for the transfer of publicly owned technologies.

14.C. Activities of Parties

While many of the activities of Parties are channelled through multilateral organizations, a great number of bilateral projects are under way to promote the effective development and transfer of technologies. Parties have launched information networks, which encourage development and transfer on concessional or commercial terms and facilitate access to the sources of environmental technologies and services. Parties have also initiated numerous

¹⁵⁵ FCCC/SBSTA/2006/INF.4 <<http://unfccc.int/resource/docs/2006/sbsta/eng/inf04.pdf>>.

¹⁵⁶ Annex to FCCC/SBSTA/2005/INF.10 <<http://unfccc.int/resource/docs/2005/sbsta/eng/inf10.pdf>>.

projects to support the transfer and diffusion of renewable energies and other technologies. They have also established funds specifically allocated to climate change and development. Parties report on their activities in their national communications (Article 12.3; see chapter 18B).

Technology needs assessments studies were completed by 23 non-Annex I Parties, highlighting priority technology needs identified in various sectors to reduce greenhouse gas emissions and facilitate adaptation to the adverse impacts of climate change. These studies draw attention to specific barriers to technology transfer and suggests measures to address them, including through capacity-building.

By decision 6/CP.10, COP 10 urged Annex II Parties to continue to provide and, where possible, to increase support to building endogenous capacities and technologies in developing countries. It also encouraged Parties to explore opportunities for further joint research and development programmes and projects by Annex II Parties and non-Annex I Parties. SBSTA 23 acknowledged the number of activities and initiatives under way and urged Parties to be cognizant of areas of mutual interest.

14.D. Activities of the secretariat

The secretariat has carried out a number of activities to support Parties in their efforts to promote the transfer of technology under the Convention. These activities include:

- collating and synthesizing information on financial resources and technology transfer activities of Annex II Parties, including both mitigation and adaptation technologies, as reported in their national communications;
- collating and synthesizing information on technology needs identified by Parties not included in Annex I to the Convention, as reported in their TNA studies;
- supporting Parties' efforts in assessing their technology needs and broadening access of Parties to information on technologies;
- supporting the EGTT, including assisting in organizing annual meetings and implementing its work programme;
- preparing a series of technical papers and synthesis reports on specific topics, such as technologies for adaptation to climate change¹⁵⁷, terms of transfer of technology and know-how¹⁵⁸, technology information¹⁵⁹, technology needs and technology needs assessments¹⁶⁰, capacity-building¹⁶¹, enabling environments for technology transfer¹⁶², innovative options for financing the development and transfer of technologies¹⁶³; and

157 FCCC/TP/1999/1 <<http://unfccc.int/resource/docs/tp/tp0199.pdf>> and FCCC/TP/2006/2 <<http://unfccc.int/resource/docs/tp/tp0602.pdf>>.

158 FCCC/TP/1998/1 <<http://unfccc.int/resource/docs/tp/tp0198.pdf>>.

159 FCCC/TP/2001/2 <<http://unfccc.int/resource/docs/tp/tp0102.pdf>>.

160 FCCC/SBSTA/2006/INF1 <<http://unfccc.int/resource/docs/2006/sbsta/eng/inf01.pdf>>.

161 FCCC/TP/2003/1 <<http://unfccc.int/resource/docs/tp/tp0301.pdf>>.

162 FCCC/TP/2003/2 <<http://unfccc.int/resource/docs/tp/tp0302.pdf>>.

163 FCCC/TP/2006/1 <<http://unfccc.int/resource/docs/tp/tp0601.pdf>>.

- organizing a series of workshops, seminars and side-events on related key themes, such as technology needs assessments¹⁶⁴, technology information¹⁶⁵, technologies¹⁶⁶ for adaptation to climate change, enabling environments¹⁶⁷ and innovative financing options¹⁶⁸.

Building on this work, COP 11, in its decision 6/CP.11, asked the secretariat to organize “a senior-level round-table discussion between Parties, international financing organizations, the private sector and other stakeholders to discuss experience and lessons learned, as well as strategies for short-, medium- and long-term international technology cooperation and partnerships in the development, deployment, diffusion and transfer of environmentally sound technologies and know-how, to enable more informed decisions in the future”.

SBSTA 23 too asked the secretariat to enhance outreach efforts to promote Parties’ understanding of the application and use of networking activities.

SBSTA 24 is to decide on the recommendations of the EGTT for enhancing the implementation of the technology framework.

14.E. TT: CLEAR

A key project is the technology information system TT: CLEAR. It is a web-based clearing house developed by the secretariat, with support from Parties and the EGTT. The web site aims to improve the flow and quality of the information on the development and transfer of technologies under the Convention, and to facilitate access to that information. It also has the goal of contributing to a more efficient use of the available resources by promoting synergy with other efforts. It contains an inventory of environmentally sound technologies and projects. The system, located at <<http://ttclear.unfccc.int>>, enables users to find information on, inter alia:

- technology transfer projects and programmes;
- case studies of successful technology transfer;
- environmentally sound technologies and know-how;
- organizations and experts;
- methods, models and tools to assess mitigation and adaptation options and strategies;
- relevant Internet web sites for technology transfer;
- ongoing work of the Parties and the EGTT such as issues under negotiation, documents and meetings, and the implementation of the technology framework.

¹⁶⁴ FCCC/SBSTA/2002/INF7 <<http://unfccc.int/resource/docs/2002/sbsta/inf07.pdf>>

¹⁶⁵ FCCC/SBSTA/2002/INF6 <<http://unfccc.int/resource/docs/2002/sbsta/inf06.pdf>>

¹⁶⁶ FCCC/SBSTA/2005/8 <<http://unfccc.int/resource/docs/2005/sbsta/eng/08.pdf>>.

¹⁶⁷ See <http://unfccc.int/meetings/workshops/other_meetings/items/1060.php>.

¹⁶⁸ FCCC/SBSTA/2006/3 <<http://unfccc.int/resource/docs/2006/sbsta/eng/03.pdf>> and see also <http://unfccc.int/meetings/workshops/other_meetings/items/3141.php>.

TT:CLEAR started up, as a prototype, in September 2001. A survey to assess its effectiveness was completed in May 2004. A large majority of the survey respondents found the web site useful and relevant to their work. On the basis of this, consultations are continuing to improve the site. By decision 6/CP.10, COP 10 encouraged the secretariat to continue its pilot project on networking between TT:CLEAR and national and regional technology information centres. SBSTA 23 too took note of the initial report by the secretariat on the pilot project¹⁶⁹. It acknowledged its useful contribution towards enabling Parties to gain access to relevant information, and encouraged broader partnerships with developed and developing countries and international organizations.

Relevant COP decisions:

- Decision 13/CP.1: Transfer of technology
- Decision 7/CP.2: Development and transfer of technologies
- Decision 9/CP.3: Development and transfer of technologies
- Decision 4/CP.4: Development and transfer of technologies, and Annex
- Decision 9/CP.5: Development and transfer of technologies: status of the consultative process
- Decision 4/CP.7: Development and transfer of technologies (decisions 4/CP.4 and 9/CP.5) Annex: Framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention Appendix: Terms of reference for the Expert Group on Technology Transfer
- Decision 10/CP.8: Development and transfer of technologies
- Decision 6/CP.10: Development and transfer of technologies
- Decision 6/CP.11: Development and transfer of technologies

Relevant technical papers:

- FCCC/TP/1997/1: Trends of financial flows and terms and conditions employed by multilateral lending institutions
- FCCC/TP/1997/3: Adaptation technologies
- FCCC/TP/1998/1: Terms of transfer technology and know-how. Barriers and opportunities related to the transfer of technology
- FCCC/TP/1999/1: Coastal adaptation technologies
- FCCC/TP/2001/2: Technology transfer clearing house and international information network
- FCCC/TP/2003/1: Capacity-building in the development and transfer of technologies
- FCCC/TP/2003/2: Enabling environments for technology transfer
- FCCC/TP/2006/1: Innovative options for financing the development and transfer of technologies
- FCCC/TP/2006/2: Application of environmentally sound technologies for adaptation to climate change

¹⁶⁹ See FCCC/SBSTA/2005/INF9 <<http://unfccc.int/resource/docs/2005/sbsta/eng/inf09.pdf>>.

Furthering research and systematic observation

Decades of research and observation of the climate have indicated the extent of the rise in global mean temperature, but have illuminated only a small corner of a vast and complex subject. The need for a better understanding of the global climate system and more accurate data on its variability and change are addressed in the Convention. In Article 4.1, subparagraphs (g) and (h), and Article 5 of the Convention, Parties commit themselves to cooperate in research and systematic observation of the climate system. While Article 4.1(g) refers to research, systematic observation and data archives, Article 4.1(h) specifically addresses exchanging information about climate change. Article 5 further elaborates the provisions of Article 4.1(g).

Article 4.1(g) calls on Parties “to promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies”.

According to Article 4.1(h), Parties are to “promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies”.

Article 5 calls on Parties to

- “support and further develop, as appropriate, international and intergovernmental programmes and networks or organizations aimed at defining, conducting, assessing and financing research, data collection and systematic observation, taking into account the need to minimize duplication of effort” (Article 5(a)); and
- “support international and intergovernmental efforts to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries, and to promote access to, and the exchange of, data and analyses thereof obtained from areas beyond national jurisdiction” i.e. areas such as open oceans and outer space (Article 5(b)).

Furthermore, Parties are to “take into account the particular concerns and needs of developing countries and cooperate in improving their endogenous capacities and capabilities to participate” in these efforts (Article 5(c)).

The overall responsibility for issues related to research and systematic observation lies with the SBSTA (decision 13/CP.3; see chapter 2). The SBI has been mainly involved in connection with national communications and corresponding reporting guidelines.

Implementing Article 5 was first taken up at SBSTA 2 in 1996. In the following years, the work on this by the SBSTA and the COP had a strong focus on questions related to systematic observation (see section 15.B). Since SBSTA 16 (2002), consideration of the TAR from the IPCC has given a new impetus to the examination of research issues in a broader context (see section 15.A).

Box 15.1: Research and systematic observation under the Kyoto Protocol

The Kyoto Protocol also addresses research and systematic observation. Article 10(d) states that:

"... all Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention, shall: Cooperate in scientific and technical research and promote the maintenance and the development of systematic observation systems and development of data archives to reduce uncertainties related to the climate system, the adverse impacts of climate change and the economic and social consequences of various response strategies, and promote the development and strengthening of endogenous capacities and capabilities to participate in international and intergovernmental efforts, programmes and networks on research and systematic observation, taking into account Article 5 of the Convention ..."

15.A. Research

Research on climate and issues connected with climate change is carried out nationally, regionally and internationally. Three broad research areas are relevant: climate processes and system, climate modelling and prediction; impacts of climate change and adaptation to it; and mitigation of climate change.

The IPCC (see chapter 4.B) plays a key role in assessing the information from worldwide climate research and identifying priority needs for further activities.

The SBSTA has regularly requested and received information on priority areas and research activities and specific input from relevant organizations and the scientific community. The research issue gained new momentum in the follow-up to the consideration of the IPCC's TAR. SBSTA 16, in June 2002, invited Parties to submit their views on priority research and questions for the scientific community¹⁷⁰. It also facilitated an exchange of views with the IPCC and international research programmes and bodies. This included a side-event at SBSTA 17 to discuss priorities. On the basis of the expert views and submissions from Parties, SBSTA 17 (October–November 2002) noted that a more coordinated

¹⁷⁰ See FCCC/SBSTA/2002/Misc.15 <<http://unfccc.int/resource/docs/2002/sbsta/eng/misc15.pdf>>, FCCC/SBSTA/2002/Misc.15/Add.1 <<http://unfccc.int/resource/docs/2002/sbsta/eng/misc15a01.pdf>> and, as a synthesis of submissions, FCCC/SBSTA/2002/INF.17 <<http://unfccc.int/resource/docs/2002/sbsta/eng/inf17.pdf>>.

Box 15.2: International bodies and programmes active in research activities relevant to the Convention

Internationally, research on climate is conducted and coordinated by a variety of bodies and programmes. Major intergovernmental and non-governmental organizations include the World Meteorological Organization (WMO); the United Nations Environment Programme (UNEP); the Food and Agriculture Organization of the United Nations (FAO); the United Nations Educational, Scientific and Cultural Organization (UNESCO), and its Intergovernmental Oceanographic Commission (IOC); the World Health Organization (WHO); the United Nations Development Programme (UNDP); the International Council of Scientific Unions (ICSU); and the International Social Science Council (ISSC). In 1993, these organizations launched the "Climate Agenda", a framework to integrate international research programmes on climate. They have also been active in establishing and maintaining global observing systems (see section 15.B and Box 15.3) and comprehensive research programmes such as the World Climate Research Programme (WCRP), the International Geosphere-Biosphere Programme (IGBP) and the International Human Dimensions Programme on Global Environmental Change (IHDP). Other partners active in research relevant to the Convention include DIVERSITAS, an integrated programme of biodiversity science, the International Group of Funding Agencies for global change research (IGFA), Earth System Science Partnership (ESSP), Asia-Pacific Network for Global Change Research (APN), Inter-American Institute for Global Change Research (IAI), global change SysTem for Analysis, Research and Training (START), and the International Energy Agency (IEA).

and multidisciplinary approach was needed to address cross-cutting issues, such as the relationship between climate change, sustainable development and equity. SBSTA 17 also agreed on the need to engage scientists from developing countries more actively in climate change research, and urged support to endogenous capacity-building for research and systematic observation in developing countries. Following a further exchange of views and a second special side-event¹⁷¹ to discuss research conducted in response to the recommendations of the TAR, SBSTA 20 noted three issues in particular that required further consideration:

- the adequacy of research activities and their international coordination to meet the needs of the Convention;
- the importance of both social and natural sciences, and the interaction between the two; and
- the capacity of developing countries to contribute to and participate in global climate change research.

SBSTA 22 in May 2005 further considered these issues, including additional submissions by Parties¹⁷². It welcomed the efforts of the national, regional and international programmes of research on global climate change to further promote and coordinate their work in response to the needs of the Convention. It also invited them to provide periodic updates on their activities. It hailed the establishment of the Earth System Science Partnership¹⁷³ by the WCRP, IGBP, IHDP and DIVERSITAS. Parties were

¹⁷¹ For details see <<http://unfccc.int/meetings/archive/items/2953.php>>.

¹⁷² See FCCC/SBSTA/2005/3 <<http://unfccc.int/resource/docs/2005/sbsta/eng/03.pdf>>, FCCC/SBSTA/2005/Misc.1 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc01.pdf>> and FCCC/SBSTA/2004/Misc.14 <<http://unfccc.int/resource/docs/2004/sbsta/eng/misc14.pdf>>.

¹⁷³ <<http://www.essp.org>>.

invited to submit information¹⁷⁴ on research needs and priorities relating to the Convention. The information was to include details of improving the capacity of developing countries to contribute to and participate in climate change research. The secretariat was asked to prepare a synthesis report¹⁷⁵ of the research needs and priorities, and to make it available to Parties and to relevant regional and international research programmes before SBSTA 24 in May 2006. The secretariat was also charged to organize a side-event during SBSTA 24 to improve communication between climate change research organizations and the SBSTA.

COP 11 asked the SBSTA to consider research needs regularly in order to inform Parties about the activities of regional and international research programmes, and to communicate Parties' views to the scientific community (decision 9/CP.11). The decision also expressed the need to engage national and regional institutions from developing countries in cooperative climate change research and to further promote a multidisciplinary approach to research on cross-cutting issues.

15.B. Systematic observation

15.B.1. Worldwide systematic observation

Worldwide systematic observation of the climate system is a key prerequisite to advancing scientific knowledge on climate change. Cooperation with the Global Climate Observing System (GCOS) and other agencies participating in the WMO's Climate Agenda (see Box 15.3) has therefore been a particularly important element in implementing Article 4.1(g) and Article 5.

Box 15.3: The Global Climate Observing System (GCOS)

The GCOS is an international system established in 1992 to ensure that the observations and information needed to address climate issues are obtained and made available to all users. It is co-sponsored by the WMO, the IOC of UNESCO, UNEP, and the ICSU. It is directed by a steering committee and its secretariat is located at WMO headquarters in Geneva.

The GCOS is intended to be a long-term operational system driven by its users. It aims to be able to provide the comprehensive observations required for monitoring the climate system, for detecting and attributing climate change, for assessing the impacts of climate variability and change, and for supporting research in improved understanding, modelling and prediction of the climate system. The GCOS also aims to meet the need for climate data that can be applied to national economic development. It addresses the total climate system, including the atmosphere and the land, oceans, water and ice.

The GCOS does not make observations itself, but helps national and international organizations to make the observations they need for their own requirements and for common goals. It works in close cooperation with other observing systems. Among these, the Global Ocean Observing System (GOOS) and the Global Terrestrial Observing System (GTOS) can be considered its sister organizations, as they have complementary functions and are sponsored largely by the same institutions.

¹⁷⁴ FCCC/SBSTA/2006/Misc.3 <<http://unfccc.int/resource/docs/2006/sbsta/eng/misc03.pdf>> and FCCC/SBSTA/2006/Misc.3/Add.1 <<http://unfccc.int/resource/docs/2006/sbsta/eng/misc03a01.pdf>>.

¹⁷⁵ FCCC/SBSTA/2006/INF.2 <<http://unfccc.int/resource/docs/2006/sbsta/eng/inf02.pdf>>.

In 1997, COP 3 recognized concerns raised by intergovernmental organizations about the long-term sustainability of observational systems such as the GCOS, the GOOS and the GTOS. Accordingly, decision 8/CP.3 urged Parties to reverse the decline in existing observational networks and to support the regional and global observational systems being developed under the GCOS, the GOOS and the GTOS through appropriate funding mechanisms. The decision also asked the SBSTA to consider the adequacy of these systems.

In response to the decision and following an invitation by the SBSTA, the GCOS secretariat prepared the first *Report on the adequacy of the global climate observing systems*¹⁷⁶. This report stated, inter alia, that available observations had “major deficiencies with respect to climate needs”, that had “the potential seriously to undermine any decisions made concerning the mitigation of climate change”.

The SBSTA and COP, in various decisions, for example decision 14/CP.4 and especially decision 5/CP.5, have endorsed several major activities to address the problem, namely:

- organizing a programme of regional workshops to develop proposals to address deficiencies in the climate observing networks and to identify the capacity-building and funding required in developing countries to enable them to collect, exchange and use data to implement the Convention;
- inviting parties to develop and submit separate GCOS reports as part of national communications;
- preparing the second adequacy report by the GCOS agencies.

The second adequacy report was presented to SBSTA 18 in June 2003¹⁷⁷. Echoing the first, the second report also concluded that, although progress had been made in implementing global climate observing systems, serious deficiencies remained in the ability of the current systems to meet the needs of the Convention. SBSTA 18 asked Parties to submit their views on priorities arising from the report¹⁷⁸.

On this basis, COP 9 (2003) adopted decision 11/CP.9 on global observing systems. This decision, inter alia:

- asks the GCOS secretariat to coordinate the development of a phased 5- to 10-year plan to implement the integrated global observing systems for climate, using a mix of high-quality satellite and in situ measurements, dedicated infrastructure and targeted capacity-building;

¹⁷⁶ FCCC/CP/1998/MISC.2 <<http://unfccc.int/cop4/misc02-1.pdf>>, summarized in FCCC/CP/1998/7 <<http://unfccc.int/cop4/07-3.htm>>.

¹⁷⁷ For a concise overview, see FCCC/SBSTA/2003/9 <<http://unfccc.int/resource/docs/2003/sbsta/09.pdf>>; for the report, see <http://www.wmo.ch/web/gcos/Second_Adequacy_Report.pdf>.

¹⁷⁸ FCCC/SBSTA/2003/MISC.10 <<http://unfccc.int/resource/docs/2003/sbsta/misc10.pdf>> and FCCC/SBSTA/2003/MISC.10/Add.1 <<http://unfccc.int/resource/docs/2003/sbsta/misc10a01.pdf>>; synthesis report by the GCOS secretariat: FCCC/SBSTA/2003/MISC.12 <<http://unfccc.int/resource/docs/2003/sbsta/misc12.pdf>>.

- invites the GCOS secretariat and the ad hoc Group on Earth Observations (ad hoc GEO; see Box 15.4) to collaborate closely in developing their implementation plans, and the ad hoc GEO to treat global climate monitoring as a priority;
- invites the sponsoring agencies of the GCOS to develop a framework for the preparation of guidance materials, standards and reporting guidelines for terrestrial observing systems¹⁷⁹;
- asks Parties to review the second adequacy report within the context of their national capabilities and to consider what actions they can take to address the findings; and
- urges Parties in a position to do so to support the priority needs in developing countries.

A major development in response to the request by COP 9 was the *Implementation Plan for the Global Observing System for Climate Change in Support of the UNFCCC*¹⁸⁰, produced by the GCOS, which was endorsed at SBSTA 24 and COP 10 (December 2004). In its decision 5/CP.10, COP 10 encouraged Parties to strengthen their efforts to address the priorities highlighted, including:

- improving in situ and key satellite observation networks;
- generating integrated global climate products for atmospheric, oceanic and terrestrial domains;
- increasing the participation of the LDCs and SIDS;
- improving access by all Parties to global climate data; and
- strengthening national, regional and international infrastructure for global observing systems.

The COP requested the GCOS secretariat to report on the implementation of the plan at SBI 23 and, as required, at subsequent SBI sessions.

SBSTA 23 considered a number of technical reports¹⁸¹ and the synthesis report on how actions identified in the GCOS implementation plan had been incorporated into the plans and actions of the agencies sponsoring the GCOS¹⁸². It noted that an excellent foundation to improve the global observing systems for climate had been constituted. It also expressed appreciation for the international consensus and support for the plan. To continue this good work, the following actions were outlined for the coming years:

¹⁷⁹ FCCC/SBSTA/2005/MISC.16 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc16.pdf>>.

¹⁸⁰ Report no. GCOS-92 (October 2004).
<[http://www.wmo.ch/web/gcos/Implementation_Plan_\(GCOS\).pdf](http://www.wmo.ch/web/gcos/Implementation_Plan_(GCOS).pdf)>. An executive summary is contained in FCCC/SBSTA/2004.MISC.16 <<http://unfccc.int/resource/docs/2004/sbsta/misc16.pdf>>.

¹⁸¹ Report from CEOS on preparing a coordinated response from space agencies involved in global observations to the needs expressed in the GCOS implementation plan contained in FCCC/SBSTA/2005/MISC.17/Rev.1 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc17r01.pdf>> and a progress report on developing a framework for the preparation of guidance materials, standards and reporting guidelines for terrestrial observing systems for climate, prepared by the GTOS secretariat contained in document FCCC/SBSTA/2005/MISC.16
<<http://unfccc.int/resource/docs/2005/sbsta/eng/misc16.pdf>>.

¹⁸² FCCC/SBSTA/2005/MISC.14 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc14.pdf>>.

- GTOS secretariat to report on progress in developing a framework for preparing guidance materials, standards and reporting guidelines for terrestrial observing systems for climate in time for SBSTA 26 (May 2007);
- GCOS secretariat to provide a comprehensive report at its thirtieth session (June 2009) on progress with the GCOS implementation plan;
- Parties to submit to the secretariat, by 15 September 2008, additional information on their national activities towards implementing the plan;
- GCOS secretariat to submit to the SBSTA, by September 2006, a proposal on ways to incorporate the priorities of the plan and the reporting on essential climate variables into the revision process of the *UNFCCC reporting guidelines on global climate change observing systems*; and
- GCOS secretariat, in cooperation with the Regional Workshop Advisory Committee, to report on the results of the workshop programme at SBSTA 25.

SBSTA 23 further encouraged Annex I Parties to facilitate the participation of developing country Parties in the implementation activities.

15.B.2. Capacity-building

COP 4, by decision 14/CP.4, urged Parties to actively support capacity-building in developing countries to enable them to collect, exchange and use data to meet local, regional and international needs. Also at COP 4, Parties asked the GEF to provide funding to developing country Parties to build capacity to participate in systematic observational networks (decision 2/CP.4).

COP 5, by decision 5/CP.5, invited the GCOS secretariat to organize regional **workshops** to identify the capacity-building needs for participation in systematic observation. As of May 2006, 8 of 10 planned workshops had been held in the Pacific region, Africa, Central and South America, Asia, and Eastern and Central Europe. As noted above, on completion of the programme in 2006, the GCOS

Box 15.4: Group on Earth Observations

In July 2003, on an initiative of the United States, the first **Earth Observation Summit** convened in Washington, D.C. The aim was to launch a process for developing a comprehensive, coordinated and sustained earth observation system that would meet collective requirements for observations and fill gaps in existing systems, accompanied by capacity-building efforts and optimized exchange of data internationally. To further this goal, the summit established the **ad hoc Group on Earth Observations** (ad hoc GEO).

The third Earth Observation Summit (Brussels, February 2005) adopted a 10-year Implementation Plan establishing the **Global Earth Observation System of Systems** (GEOSS) that builds on existing international cooperation efforts while encouraging and accommodating new components. The summit also established the intergovernmental **Group on Earth Observations** (GEO)¹⁸³ as the successor of the ad hoc GEO, with the mandate to implement the GEOSS. Membership of the group is open to all member States of the United Nations and to the participation of international organizations. As of May 2006, 64 governments and the European Commission were GEO members, and the GEO counted 43 participating organizations, including a range of existing observing systems such as the GCOS.

¹⁸³ <<http://earthobservations.org>>.

secretariat is to report to SBSTA 25 on the results. Each workshop resulted in a **regional action plan** containing a detailed strategy for addressing priority needs¹⁸⁴. The GCOS programme of regional workshops is associated with the GEF/UNDP National Communications Support Programme (see chapter 18). COP 9 invited the GEF to give appropriate consideration to addressing the priority needs identified in the regional action plans (decision 4/CP.9).

Capacity-building for research and systematic observation, along with related funding, has also been addressed in other decisions by the COP, including within the Marrakesh Accords (COP 7 in 2001), the frameworks for capacity-building in developing countries (decision 2/CP.7) and in EITs (decision 3/CP.7), and the framework related to the development and transfer of technologies (decision 4/CP.7).

Furthermore SBSTA 23 in November and December 2005 urged Parties to continue implementing, in particular, the capacity-building elements of the GCOS implementation plan. It also reiterated the continued need for capacity-building through the GEO, the GCOS secretariat cooperation mechanism and regional activities, to enable developing countries to apply climate observations especially to impact assessments and preparation of adaptation (see chapter 12).

15.B.3. National programmes and reporting

COP 4 urged Parties to undertake programmes of systematic observations, including preparing specific national plans, and to actively support national observing systems so that they serve adequately as elements of the global observing systems (decision 14/CP.4). To assist Parties in reporting on their national actions for global observing systems, COP 5 (1999) adopted specific reporting guidelines, the *UNFCCC reporting guidelines on global climate change observing systems* (decision 5/CP.5)¹⁸⁵. It invited all Parties to provide detailed reports on systematic observation in accordance with these guidelines, for Annex I Parties in conjunction with their national communications, and on a voluntary basis for non-Annex I Parties.

According to the guidelines, Parties are to:

- describe the status of their national programme for systematic observation to meet the needs for climate observations as identified by the GCOS and its partner programmes. This should include, inter alia, information on existing national plans, data exchange and activities for capacity-building in developing countries, and action to strengthen international and intergovernmental programmes related to global climate observing systems;
- describe, to the extent possible, their participation in the GCOS, through the provision of meteorological and atmospheric observations;

¹⁸⁴ See GCOS web site: <<http://www.wmo.ch/web/gcos>>. A description of the first two regional action plans is contained in the GCOS interim report to SBSTA 16, FCCC/SBSTA/2002/MISC.10 <<http://unfccc.int/resource/docs/2002/sbsta/misc10.pdf>>.

¹⁸⁵ FCCC/CP/1999/7, pp. 101-108 <<http://unfccc.int/resource/docs/cop5/07.pdf>>.

- describe, where relevant and to the extent possible, their participation in the GCOS and the GOOS through their provision of oceanic observations;
- describe their participation in programmes for terrestrial observations of the GCOS and the GTOS; and
- provide information, where relevant, on their participation in national and international space-based observing programmes or programmes using satellite data to derive climate-related information.

Both the Convention secretariat¹⁸⁶ and the GCOS secretariat¹⁸⁷ provided synthesis reports of the information submitted by Parties on systematic observation in 2002, following a request by the COP. As noted above, SBSTA 25 will consider the need to revise the reporting guidelines.

15.B.4. Data exchange

Based on the findings of the first adequacy report, decision 14/CP.4 urged Parties to undertake free and unrestricted exchange of data to meet the needs of the Convention. In 2003, the second adequacy report noted persisting shortcomings in data exchange as a major problem. As a consequence, SBSTA 18 urged Parties to address problems affecting the availability of data. Following an invitation by SBSTA 18, the GCOS submitted a report on problems of data exchange to SBSTA 22 (May 2005)¹⁸⁸. Following the review of the second adequacy report, COP 9, in decision 11/CP.9, called on Parties to consider what actions could be taken to address the issue of the principle of free and unrestricted exchange of data and products, especially with respect to the set of essential climate variables defined in the report. SBSTA 23 urged Parties and invited intergovernmental organizations and international bodies to facilitate releasing data and rescuing historical climate records.

Relevant COP decisions:

- Decision 8/CP.3: Development of observational networks of the climate system
- Decision 14/CP.4: Research and systematic observation
- Decision 5/CP.5: Research and systematic observation
- Decision 11/CP.9: Global observing systems for climate
- Decision 5/CP.10: Implementation of the global observing system for climate

¹⁸⁶ FCCC/SBSTA/2002/INF.15 <<http://unfccc.int/resource/docs/2002/sbsta/inf15.pdf>>.

¹⁸⁷ FCCC/SBSTA/2002/MISC.10 <<http://unfccc.int/resource/docs/2002/sbsta/misc10.pdf>>.

¹⁸⁸ FCCC/SBSTA/2005/MISC.17 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc17.pdf>> and FCCC/SBSTA/2005/MISC.17/Add.1 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc17a01.pdf>>.

Chapter

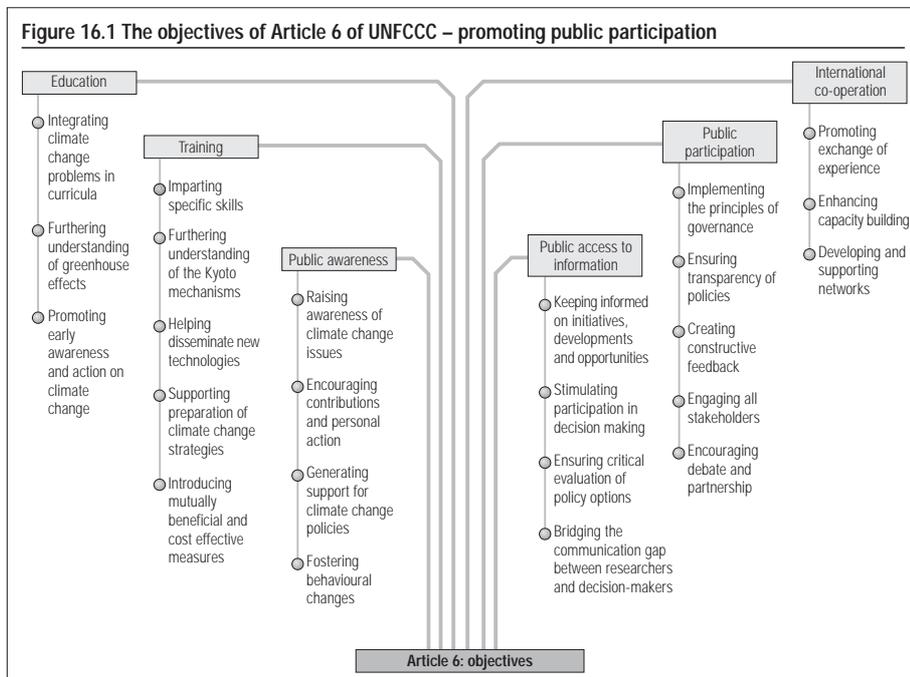
Promoting education, training and public awareness

Climate change will affect everyone on the planet, so it is vital that everyone is aware of the risks they face and of the role they can play in combating it. The Convention recognizes that the success of strategies to address climate change depends on fully involving individuals and communities, interest groups and stakeholders, including businesses and local policy makers. It therefore directly addresses education, training and public awareness, as well as access to information, public participation and international cooperation in these areas.

Section 16.A of this chapter deals with the provisions of the Convention; Section 16.B focuses on the New Delhi work programme, which was adopted in 2002 to implement the provisions.

16.A. Provisions of the Convention

Article 4.1(i) and Article 6 of the Convention address the issues of education, training and public awareness. Article 4.1(i) provides that all Parties “promote and cooperate in education, training and public awareness and encourage the widest participation ... including that of non-governmental organizations”. Article 6 further details this provision. Article 6(a) requires Parties to promote and facilitate at national and, as appropriate, regional and subregional levels:



- the development and implementation of educational and public awareness programmes on climate change and its effects;
- public access to information on climate change and its effects;
- public participation in addressing climate change and its effects and developing adequate responses; and
- training of scientific, technical and managerial personnel.

These activities are to be carried out in accordance with national laws and regulations, and to the extent that Parties are able.

Article 6(b) highlights the need for Parties to cooperate internationally in:

- developing and exchanging educational and public awareness material on climate change and its effects; and
- developing and implementing education and training programmes, including strengthening national institutions and seconding personnel to train experts in this field, particularly for developing countries.

Where appropriate, existing international bodies are to be used.

16.B. The New Delhi work programme

Article 6 was first placed on the agenda at SBSTA 8 in 1998. The same year COP 4 adopted the Buenos Aires Plan of Action in decision 1/CP.4. This decision asked the GEF to fund activities to implement Article 6. In 2002, after a series of side-events, workshops and negotiations, COP 8 adopted a five-year country-driven programme involving all stakeholders, named the *New Delhi work programme on Article 6 of the Convention* (decision 11/CP.8). Following COP 8, Article 6 was transferred from the SBSTA agenda to the SBI.

The programme encourages Parties to carry out activities in six categories, the so-called six pillars, which reflect the main elements of Article 6, namely:

Box 16.1: Education, training and public awareness in the Kyoto Protocol

Article 10(e) of the Kyoto Protocol builds on the Convention provisions, stating that:

"All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for Parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention, shall: Cooperate in and promote at the international level, and, where appropriate, using existing bodies, the development and implementation of education and training programmes, including the strengthening of national capacity-building, in particular human and institutional capacities and the exchange or secondment of personnel to train experts in this field, in particular for developing countries, and facilitate at the national level public awareness of, and public access to information on, climate change. Suitable modalities should be developed to implement these activities through the relevant bodies of the Convention, taking into account Article 6 of the Convention."

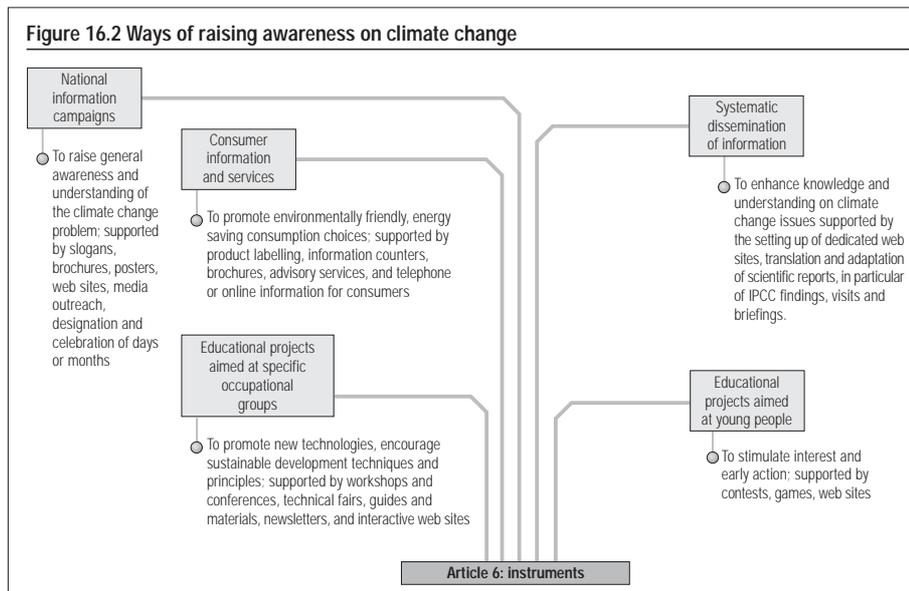
- international cooperation;
- education;
- training;
- public awareness;
- public participation; and
- public access to information.

In general, the programme calls upon the Parties to:

- improve education and training programmes that focus on climate;
- increase the availability and flow of information on climate change;
- improve understanding of climate change issues and participation in addressing them;
- promote partnerships and networking activities; and
- foster regional and international cooperation in implementing Article 6.

These activities are to be guided by:

- a country-driven, phased approach, integrated into existing climate change programmes and strategies;
- cost-effective operation;
- the promotion of partnerships, networks and synergies, in particular synergies between conventions;
- an interdisciplinary, holistic and systematic approach; and
- the principles of sustainable development.



The programme recognizes the importance of partnerships and of intergovernmental and non-governmental organizations in supporting work nationally and internationally and encourages a programmatic response by these organizations.

The programme further provides a list of activities that could be carried out by Parties nationally. They include:

- developing institutional and technical capacities to identify gaps and needs in implementing Article 6;
- designating and supporting a national focal point for Article 6 activities;
- preparing assessments of needs specific to national circumstances in implementing Article 6;
- developing a directory of organizations and individuals relevant to Article 6 activities;
- developing criteria for identifying and disseminating information on good practices;
- using curricula and teacher training to integrate climate change issues into all educational levels and across disciplines;
- disseminating key information and documents on climate change more widely;
- seeking contributions and public participation from all stakeholders and encouraging their participation in the negotiation process;
- informing the public about the causes of climate change and sources of GHG emissions, as well as about actions to address them; and
- sharing the findings of national communications, national action plans or domestic programmes on climate change with the general public and all stakeholders.

COP 8 equally addressed financial and technical support. Decision 11/CP.8 called on the GEF to support implementation of the programme in non-Annex I Parties (see chapter 13). Parties were also encouraged to make use of bilateral and multilateral sources of funding. In addition, decision 11/CP.8 asked Parties to report in their national communications, where possible, and elsewhere, on their achievements, lessons learned, experiences and remaining gaps and barriers observed. It also called on the secretariat to work on an information clearing house and to facilitate coordinated contributions to the work programme by intergovernmental and non-governmental organizations.

Following COP 8, the secretariat developed the outline plan of an information clearing house, to facilitate exchange and cooperation between Parties, and intergovernmental and non-governmental organizations working on Article 6 issues¹⁸⁹. A small-scale model of the clearing house was presented to SBI 20 in June 2004. The SBI asked the secretariat to continue its work, taking into account further guidance from Parties. The secretariat subsequently presented a feasibility study for further

¹⁸⁹ See FCCC/SBI/2003/4 <<http://unfccc.int/resource/docs/2003/sbi/04.pdf>>, and FCCC/SBI/2003/INF.16 <<http://unfccc.int/resource/docs/2003/sbi/inf16.pdf>>.

development of the clearing house based on a two-phase implementation process¹⁹⁰. SBI 23, in 2005, welcomed the launch of the prototype, **CC:iNet**¹⁹¹. It was designed to help governments, organizations and individuals gain rapid and easy access to ideas, strategies, contacts, experts and materials that could be used to motivate and empower people to take effective action on climate change. The prototype phase is to continue for two years, during which the database will continue to be populated with information restricted to education and public awareness. At the end of this phase there will be an evaluation before the development of a full-scale clearing house. The full-scale clearing house will place new emphasis on the remaining four elements of Article 6 (training, access to information, public participation and international cooperation) and will target a broader audience. SBI 23 called for views from Parties on advancing work on the clearing house to make it fully functional, multilingual and user-friendly, for consideration at SBI 25.

The secretariat has prepared a report specifically on activities undertaken by Annex I Parties to implement Article 6, based on their third national communications¹⁹². SBI 18 solicited views from both Annex I and non-Annex I Parties on possible ways of improving reporting on Article 6 activities in their national communications¹⁹³. Furthermore, a series of regional workshops on Article 6 issues was held. A European workshop took place in May 2003¹⁹⁴, an African workshop in January 2004¹⁹⁵, a workshop for Latin America and the Caribbean region in March–April 2005¹⁹⁶, and a workshop for Asia-Pacific in September 2005¹⁹⁷.

COP 10 (2004) carried out an intermediate review of progress in implementing the New Delhi work programme, based on a report prepared by the secretariat¹⁹⁸. In decision 7/CP.10, COP 10 recognized that:

- some Parties had gained experience in planning and implementing Article 6 activities, assessing their specific needs and identifying major obstacles, and many had already learned from their national experiences;
- in some developing country Parties, awareness by the public of climate change and its effects was very low, and much work needed to be done to ameliorate the situation;

¹⁹⁰ FCCC/SBI/2004/14 <<http://unfccc.int/resource/docs/2004/sbi/14.pdf>>.

¹⁹¹ <http://unfccc.int/cc_inet/items/3514.php>.

¹⁹² FCCC/SBI/2003/7/Add.4 <<http://unfccc.int/resource/docs/2003/sbi/07a04.pdf>>.

¹⁹³ See FCCC/SBI/2003/17 <<http://unfccc.int/resource/docs/2003/sbi/17.pdf>> and FCCC/SBI/2003/MISC.11 <<http://unfccc.int/resource/docs/2003/sbi/misc11.pdf>>.

¹⁹⁴ FCCC/SBI/2003/10 <<http://unfccc.int/resource/docs/2003/sbi/10.pdf>> For more information on the workshop see <http://unfccc.int/meetings/workshops/other_meetings/items/1090.php>.

¹⁹⁵ FCCC/SBI/2004/7 <<http://unfccc.int/resource/docs/2004/sbi/07.pdf>> For more information on the workshop see <http://unfccc.int/meetings/workshops/other_meetings/items/1004.php>.

¹⁹⁶ FCCC/SBI/2005/14 <<http://unfccc.int/resource/docs/2005/sbi/eng/14.pdf>> For more information on the workshops see <http://unfccc.int/cooperation_and_support/education_and_outreach/items/3364.php>.

¹⁹⁷ FCCC/SBI/2005/21 <<http://unfccc.int/resource/docs/2005/sbi/eng/21.pdf>> For more information on the workshops see <http://unfccc.int/cooperation_and_support/education_and_outreach/items/3501.php>.

¹⁹⁸ FCCC/SBI/2004/15 <<http://unfccc.int/resource/docs/2004/sbi/15.pdf>>.

- some intergovernmental, non-governmental and community-based organizations, as well as the private and public sectors, were working actively to raise awareness and increase understanding of the causes and effects of climate change, and actions to adapt to it and to mitigate it; and
- it was essential to share experiences and lessons learned, identify specific opportunities for international and regional cooperation, and build partnerships with all sectors of the economy.

COP 10, reaffirming that regional, subregional and national workshops were valuable forums for sharing experiences, invited Parties and international organizations to support them, and to assist the development and implementation of the information network clearing house. It concluded that the New Delhi work programme had proven to be an adequate framework for country-driven action and decided that the programme should continue to guide Parties in implementing Article 6 of the Convention. A full review of the implementation of the programme is scheduled for 2007. SBI 23 welcomed the progress made in countries where workshops had been held in implementing education and outreach activities, and noted their desire to develop regional strategies for the six pillars of Article 6. The SBI also called for an additional workshop that would address the particular needs of SIDS to be held before SBI 25 in November 2006. The secretariat was asked to prepare a synthesis report providing further insights into the results of the workshops for consideration at SBI 25. Noting that five countries had so far established Article 6 focal points, the SBI urged Parties that had not done so to appoint them and give them the means to promote activities relating to Article 6.

Relevant COP decisions:

- Decision 1/CP.4: The Buenos Aires Plan of Action
Decision 11/CP.8: New Delhi work programme on Article 6 of the Convention
Annex: New Delhi work programme on Article 6 of the Convention
Decision 7/CP.10: Status of, and ways to enhance, implementation of the New Delhi work programme of Article 6 of the Convention

Chapter

Building capacity

Striving to establish climate-friendly patterns of sustainable development means building capacities to address the many complex issues involved. This implies that the less developed but most vulnerable countries should be able to rely on support from the richer countries. This need to build capacity is addressed in the Convention.

This chapter concerns the framework for capacity-building activities under the Convention that cuts across many of the issues under consideration in the climate change process. It has three parts: Section 17.A focuses on the general background; Section 17.B deals with the Marrakesh Accords, which established a framework for capacity-building in developing countries and countries with economies in transition (EITs); Section 17.C concludes with issues relating to funding.

17.A. Capacity-building in the Convention process

Capacity-building, as commonly understood, encompasses activities at the level of individuals, institutions and systems (see Box 17.1). In this context, capacity-building is involved in many issues referred to in Convention articles, such as adapting to climate change, providing financial and technical resources, transferring technology, ensuring research, education and training, and improving national communications. In addition, the Convention explicitly refers to capacity-building:

- Article 4.5 affirms the need to develop and enhance endogenous capacities in the context of technology transfer;
- Article 5 calls on Parties to strengthen systematic observation and national scientific and technical research capacities and capabilities, particularly in developing countries (Article 5(b)), and to cooperate in improving developing countries' endogenous capacities and capabilities to participate in international and intergovernmental efforts related to research and systematic observation (Article 5(c)); and

Box 17.1: Aspects of capacity-building

Capacity-building can be taken as "the actions needed to enhance the ability of individuals, institutions and systems to make and implement decisions and perform functions in an effective, efficient and sustainable manner"¹⁹⁹.

For **individuals**, capacity-building refers to the process of changing attitudes and behaviours, imparting knowledge and developing skills while maximizing the benefits of participation, exchange of knowledge and ownership.

For **institutions**, capacity-building focuses on the overall organizational performance and functioning capabilities, as well as the ability of an organization to adapt to change.

For **systems**, capacity-building addresses the overall framework within which institutions and individuals operate, as well as the relationships of institutions.

¹⁹⁹ *A Guide for Self-Assessment of Country Capacity Needs for Global Environmental Management*, Global Environment Facility, September 2001, p. 5. The remainder of this box also draws on this source. See <http://www.gefweb.org/Documents/Enabling_Activity_Projects/NCSA_Guidebook_-_English.pdf>.

- Article 9.2(d) requires the SBSTA to provide advice on ways of “supporting endogenous capacity-building in developing countries”.

While capacity-building has been addressed by the COP under various agenda items (such as guidance for the operation of the financial mechanism, technology transfer and national communications), it was first dealt with as a separate agenda item at COP 5 in 1999. COP 5 launched a process to address capacity-building in developing countries (decision 10/CP.5) and in EITs (decision 11/CP.5). The decisions specified that this process should involve an assessment of existing capacity-building activities and needs and priorities.

17.B. Frameworks for capacity-building under the Convention

17.B.1. *The Marrakesh Accords*

At COP 7 in 2001, the Parties adopted **frameworks for capacity-building in developing countries** (decision 2/CP.7) and in EITs (decision 3/CP.7). Although the frameworks are similar in structure and substance, they differ in many details. This section describes both frameworks, outlining their common elements as well as specific provisions for each group, and reviews their implementation.

Frameworks: objective and purpose

Developing countries:

The **objective** is to assist these countries “to build, develop, strengthen, enhance, and improve their capabilities to achieve the objective of the Convention through the implementation of the provisions of the Convention and the preparation for their effective participation in the Kyoto Protocol process”. The **purpose** is to set out the scope of these activities and to provide the basis for action on them. It is also to serve as a guide for the climate change capacity-building activities of the GEF and other funding bodies.

EITs:

The **objective** is “to enable them to effectively implement the objective of the Convention and to prepare for their participation in the Kyoto Protocol when it enters into force”. In this context, the framework recalls that, as Annex I Parties, EITs have quantified emission limitation and reduction commitments that impose challenges to their existing capacities to implement the Convention. The **purpose** is also to set out the scope and basis for action for capacity-building, and to enable them to participate in the Kyoto Protocol.

Common guiding principles and approaches

Both frameworks provide a set of guiding principles and approaches containing essential common elements. For instance, capacity-building:

- must be country-driven, addressing countries’ specific needs and conditions and reflecting their national priorities;
- should build on existing activities, institutions and endogenous capacities;
- is a continuous process;
- should be implemented in an effective, efficient, integrated and programmatic manner; and
- involves learning by doing.

Common scope

Both frameworks set out lists of priority areas. They may be revised as needs and priorities are further identified. Common or comparable areas include:

- national communications (see chapter 18);
- plans and programmes (*developing countries*: national climate change programmes; *EITs*: national climate action plans);
- national GHG inventories (see chapter 18);
- vulnerability and adaptation (see chapter 12) (*developing countries*: vulnerability and adaptation assessments, implementation of adaptation measures; *EITs*: impact assessments and adaptation);
- mitigation (*developing countries*: assessment for implementation of mitigation options; *EITs*: policies and measures, and the estimation of their effects) (see chapter 11);
- technology transfer (see chapter 14);
- research and systematic observation (see chapter 15);
- education, training and public awareness (see chapter 16); and
- Kyoto mechanisms (see chapter 11) (*developing countries*: clean development mechanism (CDM); *EITs*: joint implementation (JI) and emissions trading).

Specific provisions

Developing countries:

The capacity-building framework has a strong focus on institutional capacity-building and related activities, including:

- strengthening or establishing national climate change secretariats or national focal points;
- improving or creating an enabling environment;
- improving decision-making, including assistance with participation in international negotiations; and
- increasing information and networking, including establishing databases.

Box 17.2: Capacity-building under the Kyoto Protocol

Under the Kyoto Protocol's Article 10(d), all Parties commit themselves to "... promoting the development and strengthening of endogenous capacities and capabilities to participate in international and intergovernmental efforts, programmes and networks on research and systematic observation ...".

Under paragraph (e) of the same Article, all Parties commit themselves to cooperating in and promoting "... the development and implementation of education and training programmes, including the strengthening of national capacity-building, in particular human and institutional capacities ...".

Under paragraph (b)(ii) of the same Article, Parties commit to submitting information in their national communications on capacity-building.

COP/MOP 1 discussed capacity-building needs under the Protocol and decided that the frameworks for capacity-building adopted by decisions 2/CP.7 and 3/CP.7 (see section 17.B) are applicable to the implementation of the Kyoto Protocol. Decision 29/CMP.1 lays emphasis on capacity-building needs of developing countries relating to their ability to participate in project activities under the clean development mechanism (see chapter 11). Decision 30/CMP.1 addresses capacity-building needs of EITs. The secretariat is requested to report to the COP on implementing the framework that is undergoing a second comprehensive review to be finalized in 2007.

The framework also pays special attention to the specific needs of particular groups of developing country Parties. The list of initial priorities includes a reference to the implementation of Article 4.8 (specific needs arising from the adverse effects of climate change and the impact of the implementation of response measures; see chapter 12) and 4.9 (specific needs of LDCs; see chapter 12). In addition, the framework specifically requires that the **special circumstances of LDCs and SIDS** be taken into account. They are amongst the most vulnerable to extreme weather events and the adverse effects of climate change but at the same time have the least capacity to cope with them. Financial and technical assistance to implement the framework is to be provided to these countries as a priority through the GEF and other channels. The framework provides an initial assessment of needs and priority areas specific to LDCs and SIDS, which include:

- developing an integrated implementation programme which takes into account the role of research and training in capacity-building;
- enabling these countries to carry out vulnerability and adaptation assessments and effectively integrate them into sustainable development programmes and develop national adaptation programmes of action (NAPAs);
- strengthening existing national research and training institutions and, where needed, establishing new ones to ensure sustainability of the capacity-building programmes; and
- enhancing public awareness.

EITs:

The framework for EITs contains additional elements such as:

- projections and estimation of GHG emissions;
- reporting obligations; and
- accounting modalities (under the Kyoto Protocol).

Implementation

The frameworks call on developing countries and EITs to continue to provide information on their specific needs and priorities, while promoting cooperation among each other and participation among stakeholders. Annex II Parties, for their part, should provide additional financial and technical assistance to implement capacity-building activities through the GEF (see chapter 13) and other channels, while all Parties should improve the coordination and effectiveness of existing activities.

Box 17.3: Support for capacity-building from Annex I Parties

According to the third national communications from Annex I Parties, the fields of activity which received most support were: training and education; the preparation and implementation of national environmental strategies and plans, including GHG inventories; vulnerability assessments; institutional development; research institutes; environmental management; disaster preparedness, including monitoring and response programmes; the participation of non-Annex II representatives in meetings and workshops; and capacity-building activities relating to developing and implementing CDM/JI projects.

Table 17.1: Bilateral financial contributions related to adaptation in the implementation of the UNFCCC, 1997–2000 (millions of US\$)

Donor	Capacity-building			
	1997	1998	1999	2000
AUS	0.07	0.05	0.8	0.8
AUT				
CAN	21.6	24.5	32.9	
CHE				
DEU				
ESP		1.1	1.4	1.8
EC				
FIN	0.09	2.6	4.7	
FRA				
GBR				
ITA	2.9	4.9	3.7	3.0
JPN	43.2	48.9	46.6	
NLD				
NOR			0.6	0.5
NZL	0.7	1.6	1.6	2.2
SWE	3.0	34.8	31.3	35.7
USA	779.11	754.6	2 484.7	943.24

Note: For an explanation of country codes, please refer to appendices

17.B.2. Review of implementation

Decisions 2/CP.7 and 3/CP.7 mandated the COP to conduct comprehensive reviews of the implementation of both frameworks; the SBI too regularly monitors progress. Parties are invited to provide information and other reports to enable such monitoring to take place²⁰⁰. The secretariat has also regularly provided information on implementation, drawing on sources such as national communications and submissions by the GEF and other international organizations²⁰¹.

COP 9 (2003) adopted terms of reference for the first comprehensive review of the implementation of the framework for capacity-building in developing countries as well as a time frame and process for further reviews (decision 9/CP.9)²⁰². In the decision, the COP decided to complete its review of both frameworks at COP 10 in 2004. A review of the framework for developing

²⁰⁰ See for example, FCCC/SBI/2004/MISC.1 <<http://unfccc.int/resource/docs/2004/sbi/misc01.pdf>>.

²⁰¹ Most recent inputs include FCCC/SBI/2004/8 <<http://unfccc.int/resource/docs/2004/sbi/08.pdf>>, FCCC/SBI/2004/9 <<http://unfccc.int/resource/docs/2004/sbi/09.pdf>>, FCCC/SBI/2003/INF.8 <<http://unfccc.int/resource/docs/2003/sbi/inf08.pdf>>, FCCC/SBI/2003/INF.9 <<http://unfccc.int/resource/docs/2003/sbi/inf09.pdf>> and FCCC/SBI/2003/INF.10 <<http://unfccc.int/resource/docs/2003/sbi/inf10.pdf>>.

²⁰² Contained in FCCC/SBI/2003/8, Annex III <<http://unfccc.int/resource/docs/2003/sbi/08.pdf>> For an analysis of the elements contained in the terms of reference, see FCCC/SBI/2003/14 <<http://unfccc.int/resource/docs/2003/sbi/14.pdf>>.

countries is to be held every five years thereafter, while further review of the framework for EITs should be based on their national communications.

17.B.2.a. Review of the capacity-building framework for developing countries

In its review, COP 10 concluded that the guiding principles, the approaches and initial scope laid down by decision 2/CP.7 were still relevant and valid and that the decision should continue to be the basis of capacity-building activities (decision 2/CP.10). The COP further noted that while resources had been made available for a range of priority issues, significant gaps still remained to be filled. It therefore named a number of **key factors** that should be taken into account in further implementing the decision:

- **institutions:** creating and strengthening basic institutional infrastructure and increasing the involvement of national governmental organizations; promoting the integration of climate change issues into national planning processes;
- **funding:** making financial and technical resources available through the financial mechanism of the Convention and, as appropriate, through multilateral and bilateral agencies and the private sector, in particular for LDCs and SIDS; accessing funding; coordinating international donors; harmonizing donor support in alignment with national priorities, plans and strategies;
- **approaches:** emphasizing learning by doing; exchanging best practices, experiences and information on activities carried out by various Parties.

In addition, the COP invited relevant intergovernmental and non-governmental organizations to take into account in their own programmes the needs identified in decision 2/CP.7 and the key factors identified in decision 2/CP.10. It called on them to cooperate with each other to ensure efficient support for efforts by developing country Parties. It also called for continued cooperation with other appropriate United Nations Conventions (see chapter 4), in order to maximize synergy in implementing capacity-building activities.

COP 10 decided that the second comprehensive review was to be started at SBI 28 (June 2008) and completed at COP 15 (November–December 2009). In the meantime, as requested in decision 2/CP.10, the SBI is to consider the steps necessary to monitor capacity-building activities undertaken according to decision 2/CP.7²⁰³.

17.B.2.b. Review of the capacity-building framework for EITs

COP 10 noted that the capacity-building priorities in the framework for EITs (decision 3/CP.7) were still pertinent, that EITs still needed support, and that many issues and lessons learned from the developing countries were also

²⁰³ FCCC/SBI/2006/5 <<http://unfccc.int/resource/docs/2006/sbi/eng/05.pdf>> and FCCC/SBI/2006/MISC.4 <<http://unfccc.int/resource/docs/2006/sbi/eng/misc04.pdf>>, FCCC/SBI/2006/MISC.4/Add.1 <<http://unfccc.int/resource/docs/2006/sbi/eng/misc04a01.pdf>> and FCCC/SBI/2006/MISC.4/Corr.1 <<http://unfccc.int/resource/docs/2006/sbi/eng/misc04c01.pdf>>

applicable to them (decision 3/CP.10). By the same decision, COP 10 identified a number of **key factors** for further implementation of the framework, including:

- enhancing enabling environments to promote sustainability and effectiveness of capacity-building activities;
- improving information sharing, as well as cooperation and coordination among EITs;
- expanding training, education and public awareness;
- enhancing national capacities, expertise and coordination at the governmental level, as well as improving the abilities of EITs to participate effectively in international negotiations in the climate change process; and
- increasing participation by all stakeholders in capacity-building activities.

COP 10 invited the GEF, Annex II Parties and multilateral, bilateral and other international organizations to provide further financial support for implementation by EITs. It encouraged EITs to use the results of national capacity needs self-assessments (NCSAs; see section 17.C) in prioritizing their capacity-building activities nationally, and to improve the capacity of experts and institutions to implement the action plans derived from their NCSA projects. The status of implementation of decision 3/CP.7 is to be further reviewed at SBI 27 (November 2007), on the basis of information from Parties and the GEF and its implementing agencies collated by the secretariat.

17.C. Funding for capacity-building

For the GEF, capacity-building is a strategic priority that cuts across all its six thematic focal areas, of which climate change is one (see chapter 13). A review undertaken by the GEF implementing agencies (UNDP, UNEP and the World Bank) found that 96 per cent of the UNDP projects, 100 per cent of the UNEP projects and 86 per cent of the World Bank projects had capacity-building components. As stated in the 2005 GEF report to the COP²⁰⁴, this review found that GEF support for capacity-building in all its focal areas exceeded US\$1.46 billion as of June 2002. The GEF programme category of enabling activities is dedicated to capacity-building, including in the context of national communications. Within this category, the GEF has established funding options under expedited procedures for several types of activities²⁰⁵ (see also chapter 13). Such expedited funding can be provided for projects that do not exceed a certain volume; above this ceiling, projects may also be funded, but under more complicated standard procedures. Guidelines for expedited funding were issued for:

- national communications (up to US\$420,000; see chapter 18);
- (interim) capacity-building measures in priority areas, building upon initial national communications (see chapter 18);
- NCSAs (up to US\$200,000; see below); and
- NAPAs for LDCs (up to US\$200,000; see chapters 12 and 13).

²⁰⁴ FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>.

²⁰⁵ <http://thegef.org/Documents/enabling_activity_projects/enabling_activity_projects.html>.

The aim of NCSAs is to identify national priorities and needs for capacity-building to address global environment issues. An NCSA is intended to cover not only climate change, under the Convention, but also biodiversity and desertification/land degradation, which are covered by the other two 'Rio Conventions', i.e. the Convention on Biological Diversity (CBD) and the United Nations Convention to Combat Desertification (UNCCD; see chapter 4). In addition to capacity assessments for each of these areas, NCSAs are also intended to explore the synergies among them, as well as linkages with wider concerns of environmental management and sustainable development. The NCSA action plan is expected to outline priority strategies and actions for developing capacities to address the priority issues identified, in response to 2/CP7 and 2/CP10.

In September 2001, the GEF issued two guidance documents for NCSAs:

- *Operational Guidelines for Expedited Funding of National Self Assessment of Capacity Building Needs*²⁰⁶; and
- *A Guide for Self Assessment of Country Capacity Needs for Global Environmental Management*²⁰⁷, prepared with the assistance of the United Nations Institute for Training and Research (UNITAR) and other UN bodies and agencies, which provides more detailed, non-prescriptive guidance on carrying out an NCSA.

In its report to COP 8, the GEF made clear that "NCSAs are neither a precondition for GEF assistance through regular projects and enabling activities, nor a necessary first step before launching capacity-building activities in particular sectors"²⁰⁸.

The possibility of receiving funding for NCSAs resulted from the recommendations of the Capacity Development Initiative (CDI)²⁰⁹, which the GEF launched in cooperation with UNDP in January 2000. The CDI was an 18-month project, involving extensive consultations, which aimed to:

- undertake a broad assessment of capacity-building needs of developing countries and EITs;
- take stock of earlier and ongoing efforts to assist national capacity-building; and
- prepare a strategy and a GEF-specific action plan to provide enhanced and sustained assistance.

The CDI's conclusions were presented to the GEF Council in May 2001²¹⁰. The GEF outlined a strategic approach for capacity-building based on

²⁰⁶ <http://thegef.org/Documents/Enabling_Activity_Projects/Operational_Guidelines_-_English.pdf>.

²⁰⁷ <http://thegef.org/Documents/Enabling_Activity_Projects/NCSA_Guidebook_-_English.pdf>.

²⁰⁸ FCCC/CP/2002/4 <<http://unfccc.int/resource/docs/cop8/04.pdf>>.

²⁰⁹ For information, see <<http://www.gm-unccd.org/FIELD/Multi/GEF/CDI.htm>>.

²¹⁰ *Elements of strategic collaboration and a framework for GEF action for capacity-building for the global environment*, GEF/C.17/Rev.1. See also the CDI's synthesis report *Country Capacity Development Needs and Priorities* (October 2000), available at <http://thegef.org/Documents/Enabling_Activity_Projects/CDI/Synthesis_Report.pdf>.

them in 2003²¹¹ which envisaged addressing capacity-building in various ways, including:

- enhanced attention to capacity-building components in GEF projects that primarily address other strategic priorities;
- targeted capacity-building by free-standing projects, specific to a focal area, in cases where capacity-building needs cannot be adequately addressed through projects targeting other strategic priorities;
- targeted capacity-building across focal areas to assist countries to manage global environmental issues in a more general way;
- country-specific capacity-building programmes for LDCs and SIDS.

The strategy also envisages clarifying the scope of enabling activities funded by the GEF so as to focus them more on assisting countries to meet reporting requirements (such as national communications). Other capacity-building needs are to be addressed under the new funding opportunities once they have been put into operation (see chapter 13).

COP 10 welcomed the GEF's strategic approach to capacity-building and its efforts to put this approach into operation. In its report to COP 11, the GEF indicated that 153 countries were engaged in the NCSA programme, preparing to identify and prioritize their capacity needs, according to their circumstances, existing strengths and gaps.

Relevant COP decisions:

- Decision 10/CP.5: Capacity-building in developing countries (Non-Annex I Parties)
Annex: List of capacity-building needs of developing country parties
- Decision 11/CP.5: Capacity-building in countries with economies in transition
- Decision 2/CP.7: Capacity-building in developing countries (non-Annex I Parties)
Annex: Framework for capacity-building in developing countries
- Decision 3/CP.7: Capacity-building in countries with economies in transition
Annex: Framework for capacity-building in countries with economies in transition
- Decision 9/CP.9: Capacity-building
- Decision 2/CP.10: Capacity-building for developing countries (non-Annex I Parties)
- Decision 3/CP.10: Capacity-building for countries with economies in transition

²¹¹ *Strategic Approach to Enhance Capacity-building*; GEF/C.22.8, October 2003 <http://thegef.org/Documents/Council_Documents/GEF_C22/C.22.8_Strategic_Approach_to_Capacity_Building_FINAL.pdf>.

Communicating information on implementation

The ability of the international community to achieve the objective of the Convention depends on accurate knowledge of trends in GHG emissions and on altering these trends. The most appropriate action can only be taken on the basis of accurate, consistent and internationally comparable data. Communicating relevant information on the most effective ways to reduce emissions and adapt to the adverse effects of climate change also puts the world collectively on the path of sustainable forms of development. Under the Convention therefore, all Parties must communicate certain information to the COP. In accordance with the principle of “common but differentiated responsibilities” enshrined in Article 3 of the Convention, the information submitted by Annex I and non-Annex I Parties differs in scope and content.

The two main elements of the information on implementation are **national inventories** of GHGs and details of the **activities** a Party has undertaken to **implement the Convention**. Annex I Parties have to submit information on their national inventories annually. They have to submit information on their activities to implement the Convention in their national communications – documents prepared by the dates decided by the COP.

In this chapter, section 18.A describes the provisions of the Convention that apply to all Parties. Section 18.B addresses national communications by Annex I Parties and section 18.C inventories by Annex I Parties. Reporting provisions under the Kyoto Protocol are addressed in Box 18.1 (national communications), Box 18.4 (reviewing information) and Box 18.5 (guidance). Finally, section 18.D discusses national communications by non-Annex I Parties.

18.A. General provisions for the communication of information by Parties

With the qualification of “taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances”, Article 4.1(a) stipulates that all Parties are to “develop, periodically update, publish and make available to the Conference of the Parties” **national inventories** of GHGs, “using comparable methodologies to be agreed upon by the Conference of the Parties”. The inventories are to include “anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol”. Article 4.1(j) further stipulates that all Parties are to “communicate to the Conference of the Parties **information related to implementation**”.

Article 12 defines national communications in further detail. Article 12.1(a) confirms the provisions of Article 4.1(a). Article 12.1(b) requires each Party to deliver “a general description of steps taken or envisaged ... to implement the Convention”. In addition, Article 12.1(c) calls on Parties to communicate “other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends”. Article 12.2 concerns Annex I Parties (see section 18.B.1).

Box 18.1: Provisions for national communications under the Kyoto Protocol

Articles 7.1 and 7.2 commit Annex I Parties to including supplementary information in their national communications and in their annual inventories of emissions and removals of GHGs to demonstrate compliance with Protocol commitments.

Article 7.3 sets the timetable for submitting such information, taking into account the timetable for submission under the Convention.

As provided for in Article 7.4, the COP/MOP will adopt guidelines for preparing information required under Article 7, taking into account similar guidelines adopted by the COP for national communications by Annex I Parties. These guidelines were indeed adopted at COP/MOP 1, by decisions 12/CMP.1 and 15/CMP.1.

Article 8 indicates that information submitted under Article 7 is to be considered by expert review teams, following relevant decisions of the COP and guidelines of the COP/MOP. Additionally, information submitted for the purpose of Article 7.2 is to be studied as part of the review of communications. Decision 22/CMP.1 contains guidelines for review under Article 8 of the Protocol, while decision 23/CMP.1 defines terms of service for lead reviewers (see box 18.4).

Under Article 10, all Parties commit themselves to including information on action and activities under the Protocol in their national communications, in accordance with relevant decisions by the COP.

Article 12.5 sets a differentiated **timetable** for the initial communications from Parties:

- each Annex I Party “shall make its initial communication within six months of the entry into force of the Convention for that Party”;
- each non-Annex I Party “shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3”, which states that developing country Parties are to be provided with financial resources to meet the full agreed costs for complying with their reporting obligations under Article 12.1 (see chapter 13); and
- least developed country Parties “may make their initial communication at their discretion”.

Article 12.8 states that any group of Parties may “make a **joint communication** . . . , provided that such a communication includes information on the fulfilment by each of these Parties of its individual obligations under the Convention”. Use of this provision is subject to prior notification and guidelines adopted by the COP. Until now, however, no Party has made use of this possibility, and no specific provisions for joint communications have been included in the Convention guidelines for national communications.

The Convention also determines the **tasks Convention bodies have to carry out** as far as communicating information is concerned. Thus, the COP has to, for example:

- “**promote and guide** . . . the development and periodic refinement of comparable methodologies, to be agreed on by the Conference of the Parties, inter alia, for preparing inventories of greenhouse gas emissions by sources and removals by sinks, and for evaluating the effectiveness of

measures to limit the emissions and enhance the removals of these gases” (Article 7.2(d));

- “**assess**, on the basis of all information made available to it . . . , the implementation of the Convention by the Parties, the overall effects of the measures taken pursuant to the Convention, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved” (Article 7.2(e));
- “**consider and adopt** regular reports on the implementation of the Convention and ensure their publication” (Article 7.2(f));
- **review** the information provided by Annex I Parties on their policies and measures “at its first session and periodically thereafter” (Article 4.2(b));
- **consider and agree**, at its first session, methodologies for calculating GHG emissions and removals for the purposes of Annex I Parties’ specific commitments, and review these methodologies regularly thereafter (Article 4.2(c));
- **determine** the frequency of communications by Parties that follow the initial communications (Article 12.5);
- **arrange**, from its first session, for “the provision to developing country Parties of technical and financial support, on request, in compiling and communicating information [under Article 12], as well as in identifying the technical and financial needs associated with proposed projects and response measures under Article 4” (Article 12.7); and
- **establish criteria** on how to aggregate confidential information submitted by Parties (Article 12.9).

The COP may also further consider the procedures for communicating information, if necessary (Article 12.6).

For the **subsidiary bodies**, the work on methodologies, such as those applied to preparing inventories, forms part of the **SBSTA’s** tasks. The **SBI** considers the information communicated by Parties. In particular, it has to:

- “**assess** the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change” from information submitted by all Parties following Article 12.1 (Article 10.2(a)); and
- “**assist** the COP in carrying out the review of the adequacy of commitments” from information submitted by Annex I Parties following Article 12.2, as required by Article 4.2(d) (Article 10.2(b); see chapter 11).

The secretariat has to:

- “**compile and transmit** reports submitted to it” (Article 8.2(b)); as well as
- “**facilitate assistance** to the Parties, particularly developing country Parties, on request, in the compilation and communication of information required in accordance with the provisions of the Convention” (Article 8.2(c); see chapter 18.D).

Furthermore, Article 12 requires the secretariat to transmit the information from Parties as soon as possible to the COP and to any subsidiary bodies concerned (Article 12.6) and to make it publicly available at the same time (Article 12.10). Before making information available, the secretariat has to aggregate any information designated by a Party as confidential, to safeguard its confidentiality (Article 12.9).

18.B. National communications from Annex I Parties

The national communications from Annex I Parties are subject to specific provisions under the Convention, supplemented with guidelines adopted by the COP. Section 18.B.1 describes the provisions and Section 18.B.2 addresses the guidelines. Section 18.B.3 then describes the procedures for reviewing the information.

Most of the 41 Annex I Parties submitted their first national communication in 1994 or 1995, their second in 1997 or 1998, and their third between 2001 and 2003. The deadline for the fourth communication was 1 January 2006 (decision 4/CP.8). As of May 2006, 22 Parties have submitted their fourth national communication.

18.B.1. Relevant provisions of the Convention

According to Article 4.2(b) of the Convention, each Annex I Party “shall communicate ... detailed information on its policies and measures” to mitigate climate change “as well as on its resulting projected greenhouse gas emissions and removals”. This applies to the policies and measures implemented with the aim of returning Annex I Parties’ emissions to their 1990 levels by the end of the 1990s, mentioned in Article 4.2(a) (see chapter 11). The information is to be communicated within six months of the entry into force of the Convention for a Party, and periodically thereafter (Article 4.2(b)).

Article 4.2(c) states that calculations of emissions and removals of GHGs “should take into account the best available scientific knowledge, including the effective capacity of sinks and the respective contributions of such gases to climate change. The Conference of the Parties shall consider and agree on methodologies for these calculations at its first session and review them regularly thereafter”. Accordingly, COP 1 provided initial guidance on methodologies (decision 4/CP.1), referring in particular to the guidance developed by the IPCC. Subsequent guidance is described in section 18.C.

Consistently with Article 4.2, Article 12.2 stipulates that each Annex I Party is to incorporate in its communication:

- “a detailed description of the policies and measures that it has adopted to implement its commitment” under Article 4.2(a) and 4.2(b) (Article 12.2(a)); and
- a “specific estimate of the effects that these policies and measures will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases” during the period referred to in Article 4.2(a) (Article 12.2(b)).

In addition, Article 12.3 commits Annex II Parties to incorporating in their communications details of measures which provide for financial assistance (see chapter 13) and technology transfer (see chapter 14) to developing country Parties, taken in accordance with Article 4.3, 4.4 and 4.5.

18.B.2. Reporting guidelines

The current reporting guidelines²¹² were adopted by decision 4/CP.5 at COP 5 (1999). They were developed from earlier guidance, initially from the guidelines adopted by the Intergovernmental Negotiating Committee (INC) in 1994²¹³, which Annex I Parties used for their first national communications. The COP adopted revised guidelines in 1996 (decision 9/CP.2), which were used for second national communications. In 1999, the COP adopted additional guidelines (decisions 3/CP.5 and 4/CP.5) for reporting by Annex I Parties.

Before 1999 the reporting guidelines for Annex I Parties covered national communications as well as inventories, but COP 5 introduced separate guidelines for annual inventories (decision 3/CP.5; see section 18.C.2) and national communications (decision 4/CP.5). COP 5 also asked Annex I Parties to provide detailed reports on their activities in relation to systematic observation, in accordance with separate guidelines adopted by decision 5/CP.5²¹⁴ (see chapter 15.B).

According to the current reporting guidelines, Annex I Parties are to communicate the relevant information in a single document, in one of the official languages of the United Nations. Five hundred copies should be submitted to the COP through the secretariat. Annex I Parties should also

Box 18.2: Additional information relevant to Annex I Parties' fourth national communication

Annex I Parties, in preparing their fourth national communications, should take into account the following decisions and conclusions on:

- national communications: decisions 4/CP.8 and 1/CP.9;
- emissions projections: SBI 23 conclusions;
- capacity-building: decisions 2/CP.7, 3/CP.7, 2/CP.10 and 3/CP.10;
- research and systematic observation, decision 5/CP.5;
- education, training and public awareness, decisions 11/CP.8 and 7/CP.10;
- adaptation and response measures, decisions 1/CP.10 and 5/CP.7.

Links to a number of relevant workshop reports and additional information is available through the secretariat's dedicated web site at <http://unfccc.int/national_reports/annex_i_national_communications/fourth_national_communications/items/3360.php>.

²¹² *Guidelines for the preparation of national communications by Parties included in Annex I of the Convention, Part II: UNFCCC reporting guidelines on national communications*. FCCC/CP/1999/7, pp. 80-100.
<http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/cop5/07.pdf>.

²¹³ Decision 9/2, contained in A/AC.237/55, Annex I.

²¹⁴ FCCC/CP/1999/7, pp. 101-108 <http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/cop5/07.pdf>.

Box 18.3: Content of national communications – Annex I Parties

National circumstances relevant to GHG emissions: Parties are to provide a description of their national circumstances focusing on how they affect emissions and removals of GHGs, including possible changes over time. The information should encompass aspects such as government structure, population profile, geographic and climate profile, and economic profile with a description of relevant sectors of the economy. Parties requesting flexibility or consideration, in accordance with Article 4.6 (EITs) or Article 4.10 (countries with economies depending heavily on fossil fuels), are required to state the type of special consideration they are seeking and provide a full explanation of their circumstances.

GHG inventory information: Parties are to provide summary information from their national GHG inventories (see Section 18.C). This information must be provided for the period from the base year (usually 1990) to the last but one year before submitting the national communication.

Policies and measures (see chapter 11.B): Parties must communicate information on policies and measures adopted to implement their mitigation commitments under Article 4.2(a) and (b). Parties should report on policies and measures planned, adopted and/or implemented at the national, state, provincial, regional and local level, including those that do not have the limitation and reduction of GHG emissions as a primary objective. Priority should be given to the policies and measures which have the most significant effect on GHG emissions and removals. Communications of policies and measures are to be organized by sectors, subdivided by GHG. Sectors should include energy, transport, industry, agriculture, forestry and waste management. Projections on the mitigation impact of individual policies and measures should be given for particular years such as 1995, 2000 and 2005. Information on the general context of the process of policy making should also be provided.

Projections and the total effect of policies and measures: Parties must indicate expected future trends in GHG emissions and removals under current policies and measures ("with measures" projection). They may also provide a projection of emissions and removals in lieu of such policies and measures ("without measures" projection), as well as a projection "with additional measures". The starting points of "with measures" and "with additional measures" projections will generally be the latest year for which inventory data are available in the national communication, while the starting point of "without measures" projection may be earlier. Projections are to be presented by sector and by GHG. Projections for future years should be provided in five-year steps from 2005 to 2020.

Vulnerability assessment, climate change impacts and adaptation measures (see chapter 12): Parties must provide information on the expected impacts of climate change, as well as an outline of their activities

submit to the secretariat, where relevant, a translation of their national communication into English.

The national communication has to contain the following major sections:

- national circumstances relevant to GHG emissions;
- GHG inventory information;
- policies and measures;
- projections and the total effect of policies and measures;
- vulnerability assessment, climate change impacts and adaptation measures;
- financial resources and transfer of technology (Annex II Parties);
- research and systematic observation; and
- education, training and public awareness.

to adapt to climate change following Article 4.1(b) (on national measures for adaptation) and Article 4.1(e) (on cooperation among Parties for adaptation and for preparing adaptation-related plans). Parties may refer, inter alia, to integrated plans for coastal zone management, water resources and agriculture. Parties are encouraged to use methodological guidance prepared by the IPCC²¹⁵ and the United Nations Environment Programme (UNEP)²¹⁶.

Financial resources and transfer of technology (see chapters 13 and 14): Annex II Parties are required to provide details on their implementation of commitments for providing financial resources and transferring environmentally sound technologies to developing country Parties. This includes indications of:

- "new and additional" financial resources provided, in particular through contributions to the GEF, to assist developing countries in implementing the Convention, as provided for in Article 4.3;
- financial assistance for **adaptation** in developing country Parties that are particularly vulnerable to the adverse effects of climate change, as provided for in Article 4.4;
- any financial resources for the implementation of the Convention through **bilateral, regional** and other **multilateral** channels;
- measures to promote, facilitate and finance the **transfer of environmentally sound technologies** or access to them, as provided for in Article 4.5, distinguishing clearly between activities undertaken by the public sector and those by the private; and
- steps taken by governments to **support endogenous capacities** and technologies of developing countries, as provided for in Article 4.5.

In addition, decision 7/CP.7, which has not yet been incorporated into the guidelines, requires Annex II Parties to report on their financial contributions annually and mandates the COP to review them annually.

Research and systematic observation (see chapter 15): Parties should refer to the guidance provided in the Convention reporting guidelines on global climate observing systems, contained in the same document as the guidelines on national communications²¹⁷. Their communication must address both domestic and international activities, as well as action to support related capacity-building in developing countries. Furthermore, it must contain summary information on the Party's activities within the Global Climate Observing System (GCOS).

Education, training and public awareness (see chapter 16): Parties should report on, among other things, public information and education materials, resource or information centres, training programmes, and participation in international activities.

18.B.3. Procedure for reviewing and synthesizing the information

Each national communication of an Annex I Party is subject to an in-depth review (for information on the review of inventories, see section 18.C.3). The review follows procedures laid down in decisions 2/CP.1 and 6/CP.3, which were confirmed at subsequent COP sessions (decisions 33/CP.7 and 4/CP.8).

²¹⁵ *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations* (Carter, TR., M.L. Parry, H. Harasawa, S. Nishioka, 1994) <<http://www-cger.nies.go.jp>> or <http://www-cger.nies.go.jp/cgere/e_report/r_index-e.htm>.

²¹⁶ *UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies* (Feenstra, J.F., I. Burton, J.B. Smith, R.S.J. Tol, 1998) <http://www.faiw.vu.nl/images_upload/151E6515-C473-459C-85C59441A0F3FB49.pdf>.

²¹⁷ FCCC/CP/1999/7, pp. 101-108 <http://maindunfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/cop5/07.pdf>.

A team of international experts, coordinated by the secretariat, conducts the review. Experts are nominated by Parties and intergovernmental organizations for the roster, and selected by the secretariat under the guidance of the Chairs of the SBs. Experts participate in reviews in their personal capacity. The review of each national communication typically involves a desk-based study and an in-country visit, and aims to provide a comprehensive technical assessment of a Party's implementation of its commitments. It results in a report which normally expands on and updates the national communication. Such reports aim to facilitate the work of the COP in assessing the implementation of commitments by Annex I Parties. They also allow easier comparison of information between Parties, although no common format is used. The in-depth review of third national communications of most Annex I Parties was completed by 2004²¹⁸.

Following recommendations by the SBI on options for streamlining review procedures under the Convention and the Protocol²¹⁹, Parties at COP 11 recognized the need for streamlining during the period 2006–2007 and adopted decision 7/CP.11. According to this decision, the secretariat will:

- organize a centralized review of fourth national communications;
- conduct an in-country, in-depth review of the fourth national communication for those Parties that request one;
- prepare individual reports on the centralized and in-country reviews; and
- prepare a compilation and synthesis of fourth national communications to be considered at COP 13.

Additionally, as requested by decision 26/CMP.1, the secretariat will compile a synthesis of supplementary information included in fourth national communications, in accordance with Article 7.2 of the Kyoto Protocol, to be considered at COP/MOP 3.

Furthermore, the secretariat compiles a **synthesis report** that summarizes the most important information from all national communications taken together. The latest compilation and synthesis report of Annex I communications²²⁰ was discussed at COP 9 in 2003. The COP noted (decision 1/CP.9) that the aggregate GHG emissions of Annex I Parties in 2000 were below their 1990 levels, largely because of the decrease in emissions from EITs. However, projections indicated that, in the absence of additional measures, the aggregate emissions of Annex I Parties, including EITs, would increase in the period 2000–2010.

²¹⁸ For quick access to in-depth review reports: <[http://unfccc.int/documentation/documents/advanced_search/items/3594.php?such=j&symbol="ID"#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?such=j&symbol=)>.

²¹⁹ FCCC/SBI/2005/16 <<http://unfccc.int/resource/docs/2005/sbi/eng/16.pdf>>.

²²⁰ FCCC/SBI/2003/7 <<http://unfccc.int/resource/docs/2003/sbi/07.pdf>> and FCCC/SBI/2003/7/Add.1 <<http://unfccc.int/resource/docs/2003/sbi/07a01.pdf>> – FCCC/SBI/2003/7/Add.2 <<http://unfccc.int/resource/docs/2003/sbi/07a02.pdf>> – FCCC/SBI/2003/7/Add.3 <<http://unfccc.int/resource/docs/2003/sbi/07a03.pdf>> and FCCC/SBI/2003/5/Add.4 <<http://unfccc.int/resource/docs/2003/sbi/07a04.pdf>>.

Box 18.4: Review under the Kyoto Protocol

Article 5, 7 and 8 of the Kyoto Protocol address the reporting and reviewing of information by Annex I Parties, as well as national systems and methodologies for preparing GHG inventories. One of the keys to the success of the Protocol lies in the reliability of data used to assess compliance. The Protocol and the Marrakesh Accords (decisions 15/CMP.1, 22/CMP.1, 23/CMP.1, 24/CMP.1, 25/CMP.1, and 26/CMP.1) therefore include a set of monitoring and compliance procedures to enforce the Protocol's rules, address any problems, and avoid any error in calculating emissions data, transactions under the three Kyoto mechanisms and activities related to land use, land-use change and forestry (LULUCF) (see chapter 11.B).

The Protocol's monitoring procedures are based on existing reporting and in-depth review procedures under the Convention. They also involve additional accounting procedures that are needed to track transactions in the various units that represent GHG emission reductions, i.e. assigned amount units (AAUs), certified emission reductions (CERs) and emission reduction units (ERUs), under the Kyoto mechanisms, and removal units (RMUs) generated by LULUCF activities.

The decisions on the accounting, reporting and review procedures under the Protocol are:

Decision 12/CMP.1:	Guidance relating to registry systems under Article 7, paragraph 4, of the Kyoto Protocol
Decision 13/CMP.1:	Modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol
Decision 14/CMP.1:	Standard electronic format for reporting Kyoto Protocol units
Decision 15/CMP.1:	Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol
Decision 22/CMP.1:	Guidelines for review under Article 8 of the Kyoto Protocol
Decision 23/CMP.1:	Terms of service for lead reviewers
Decision 24/CMP.1:	Issues relating to the implementation of Article 8 of the Kyoto Protocol – 1
Decision 25/CMP.1:	Issues relating to the implementation of Article 8 of the Kyoto Protocol – 2
Decision 26/CMP.1:	Review processes during the period 2006–2007 for Parties included in Annex I to the Convention that are also Parties to the Kyoto Protocol

Parties concluded that further action was needed by Annex I Parties to implement policies and measures that would contribute to modifying longer-term trends in anthropogenic emissions, consistent with the objective of the Convention and their commitments, and strongly urged them to intensify efforts to that end. By the same decision, the secretariat was asked to prepare a report for COP 10 on the information from in-depth reviews of national communications from Annex I Parties²²¹, and to organize a workshop in order to facilitate timely submission of fourth national communications, address problems encountered by Parties in preparing national communications and encourage the exchange of views among technical experts on the comparability and transparency of the information in national communications.

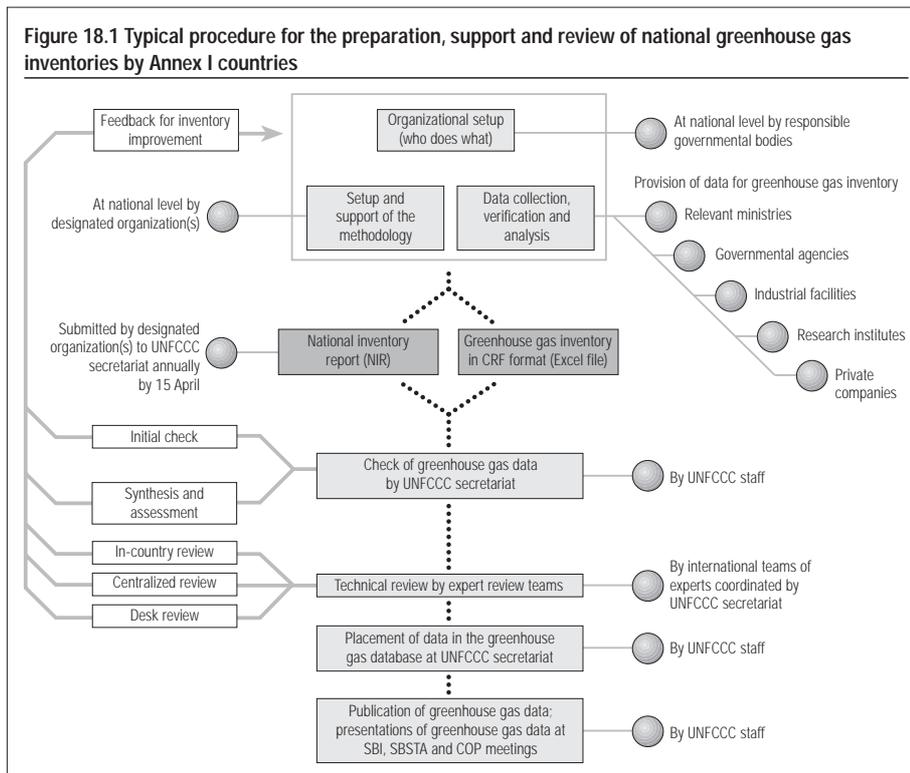
Relevant COP decisions²²²:

Decision 2/CP.1: Review of first communications from the Parties included in Annex I to the Convention Annex I: Purpose

²²¹ FCCC/CP/2004/INF.2 <<http://unfccc.int/resource/docs/cop10/inf02.pdf>>.

²²² For decisions specifically related to GHG inventories, see section 18.C.

- Decision 3/CP.1: Preparation and submission of national communications from the Parties included in Annex I to the Convention
- Decision 4/CP.1: Methodological issues
- Decision 9/CP.2: Communications from Parties included in Annex I to the Convention: guidelines, schedule and process for consideration
Annex: Revised guidelines for the preparation of national communications by Parties included in Annex I to the Convention
- Decision 6/CP.3: Communications from Parties included in Annex I to the Convention
- Decision 11/CP.4: National communications from Parties included in Annex I to the Convention



- Decision 4/CP5: Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications
- Decision 5/CP5: Research and systematic observation
- Decision 33/CP7: National communications from Parties included in Annex I to the Convention
- Decision 4/CP8: National communications from Parties included in Annex I to the Convention
- Decision 1/CP9: National communications from Parties included in Annex I to the Convention
- Decision 7/CP11: Review processes during the period 2006–2007 for Parties included in Annex I to the Convention

18.C. Greenhouse gas inventories from Annex I Parties

Since 1996, Annex I Parties have had to submit an inventory of their emissions by sources and removals by sinks of all GHG not controlled by the Montreal Protocol to the secretariat by 15 April every year (decision 3/CP.1). While the UNFCCC reporting guidelines adopted by the COP (decisions 18/CP.8 and 13/CP.9) provide guidance to Parties on the required content, they also refer to more detailed methodological guidance provided by the IPCC (see chapter 4.B). Annual inventories should include sufficient documentation and data to enable the reader to understand the underlying assumptions and calculations of the reported emission estimates. Section 18.C.1 summarizes the IPCC guidance, while some more specific aspects of it are addressed within the description of UNFCCC guidelines in section 18.C.2. Section 18.C.3 describes the consideration of annual inventories and their technical review. Some aspects specific to the Kyoto Protocol are treated in box 18.5, while box 18.8 addresses land use, land use change and forestry (LULUCF). Box 18.6 deals with emissions from international navigation and aviation.

18.C.1. Guidance by the IPCC

Guidance provided by the IPCC is in the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*²²³ (referred to as the IPCC Guidelines), as well as in two separate volumes of good practice guidance (see below) that elaborate them further. The current ones are a revised version of a first set that the IPCC issued in 1994.

The IPCC Guidelines contain step-by-step instructions, methodologies and references for calculating emissions and removals of GHGs for each category of source or sink. In certain cases, they provide different tiers of methods associated with different levels of complexity, which can be used according to the detail of data available and national circumstances (Tier 1 is the simplest and Tier 3 the most complicated). Furthermore, they provide instructions for assembling, documenting and reporting completed national inventory data consistently, regardless of the method used to produce the estimates.

²²³ Available at <<http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.htm>>.

Box 18.5: Guidance for national systems and application of adjustments under Article 5 of the Kyoto Protocol

Annex I Parties should establish and operate their national systems for estimating GHG emissions by sources and removals by sinks according to the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, as required under Article 5.1 of the Protocol. These systems are to be in place not later than 2007.

Article 5.2 states that, where agreed methodologies are not used to estimate emissions and removals, appropriate "adjustments" should be applied.

Following recommendations by the COP, COP/MOP 1 adopted the following decisions to guide Annex I Parties in implementing and operating their national systems and in applying adjustments:

Decision 19/CMP.1: Guidelines for national systems under Article 5, paragraph 1.

Decision 20/CMP.1: Good practice guidance and adjustments under Article 5, paragraph 2.

Decision 21/CMP.1: Issues relating to adjustments under Article 5, paragraph 2.

Further information on methodologies for adjustments under Article 5.2 can be found in the secretariat's working paper *Background documentation on the conservativeness factors for the completion of the technical guidance on adjustments* at

<http://unfccc.int/files/national_reports/accounting_reporting_and_review_under_the_kyoto_protocol/application/pdf/cf_wp_sb22_for_web_final__2may.pdf>.

As a complement, the IPCC issued its *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*²²⁴ (known as the IPCC good practice guidance) in 2000. Its aim is to promote transparency, consistency, comparability, completeness and accuracy of inventories. It is intended to assist countries in producing inventories that are neither overestimates nor underestimates so far as can be judged, and in which uncertainties are reduced as far as practicable. It includes, for example, decision trees that formalize the choice of estimation method best suited to national circumstances.

As the IPCC good practice guidance did not address the LULUCF sector, a further complement to the Guidelines was prepared by the IPCC in 2003, namely the *Good practice Guidance for Land Use, Land-Use Change and Forestry*²²⁵ (see Box 18.8).

The current UNFCCC reporting guidelines require Annex I Parties to use the IPCC Guidelines and the IPCC good practice guidance, including the good practice guidance for LULUCF. Non-Annex I Parties too should use the IPCC Guidelines and are encouraged to use the good practice guidance (including for LULUCF) in preparing their inventories.

The IPCC has just finished revising its 1996 Guidelines and adopted the 2006 IPCC Guidelines at its twenty-fifth meeting in April 2006.

18.C.2. UNFCCC guidelines

The current reporting guidelines for preparing annual inventories from Annex I

²²⁴ Available at <<http://www.ipcc-nggip.iges.or.jp/public/gp/english/>>.

²²⁵ Available at <<http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucfhtm>>.

Parties are in document FCCC/SBSTA/2004/8²²⁶. This document is based on the reporting guidelines adopted by COP 8 (2002)²²⁷. It also incorporates technical modifications introduced in 2003 by COP 9 (decision 13/CP.9) to establish consistency with the IPCC good practice guidance for LULUCF. The revised reporting provisions for the LULUCF sector have been used for a trial period, covering inventories due to be submitted in 2005. Based on this experience, COP 11 adopted tables for the common reporting format for LULUCF for Annex I Parties' annual inventories due in and after 2007 (decision 14/CP.11). The tables will form part of the UNFCCC reporting guidelines on annual inventories adopted by decision 18/CP.8. Updated reporting guidelines will be made available by the secretariat before SBSTA 25.

Until 1999, UNFCCC reporting guidelines for GHG inventories were incorporated in the reporting guidelines for national communications. Decision 3/CP.5 introduced separate reporting guidelines for annual inventories²²⁸ which are also to be used by Annex I Parties when reporting on inventories in their national communications. These guidelines were in turn revised at COP 8. The provisions of the current reporting guidelines are further outlined in the following sections, with Box 18.7 explaining some specific terms related to inventories.

Annex I Parties are required to submit annual inventories in two parts:

- the common reporting format (CRF), a series of standardized data tables containing mainly numerical information and submitted electronically; and
- a national inventory report (NIR), providing a comprehensive description of the methodologies used in preparing the inventory, the data sources, the institutional structures, and quality assurance and control procedures.

Annual inventories must provide estimates of GHG emissions by sources and removals by sinks. These estimates are to be presented by source category, from the base year (which is usually 1990 except for some EITs; see chapter 3.B, Table 3.1 and chapter 11) up to two years before the year in which the inventory is submitted. For example, inventories due in April 2005 contained emissions data up to the year 2003.

To facilitate Parties' reporting of inventory information in the CRF, the secretariat provides a software tool²²⁹. It has developed new reporting software (CRF Reporter) to assist Annex I Parties in reporting inventory data and to facilitate its processing by the secretariat²³⁰.

²²⁶ <<http://unfccc.int/resource/docs/2004/sbsta/08.pdf>>.

²²⁷ Decision 18/CP.8; the reporting guidelines may be found in FCCC/CP/2002/8 <<http://unfccc.int/resource/docs/cop8/08.pdf>>, pp. 4-82.

²²⁸ FCCC/CP/1999/7 <<http://unfccc.int/resource/docs/cop5/07.pdf>>, pp. 3-79.

²²⁹ All information relevant to the software can be found at the following link: <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/x-zip-compressed/crf_v1_29.zip>.

²³⁰ The UNFCCC CRF Reporter 2.0 user manual is available at http://ghgunfccc.int/docs/crfreporter_usermanual.pdf. A The CRF Reporter FAQs page is at <<http://ghgunfccc.int/crfaq.html>>.

18.C.2.a. Reporting gases

As a minimum, inventories have to include the following GHGs:

- carbon dioxide (CO₂);
- methane (c);
- nitrous oxide (N₂O);
- perfluorocarbons (PFCs);
- hydrofluorocarbons (HFCs); and
- sulphur hexafluoride (SF₆).

Estimates should also include the following indirect GHGs (see Box 18.7): carbon monoxide (CO), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), and sulphur oxides (SO_x).

If the IPCC identifies values for the 100-year global warming potential (GWP) – which indicates how much a gas contributes to global warming compared to carbon dioxide – (see Box 18.7) of any additional GHGs and the COP adopts them, Parties will be required to report on them. Parties are strongly encouraged to report emissions and removals of additional GHGs for which 100-year GWP values are available, but which have not yet been adopted by the COP. These emissions and removals should be reported separately from national totals.

Emissions and removals should be presented gas by gas in units of mass for each source or sink category (see section 18.C.2.b).

18.C.2.b. Reporting sectors and source/sink categories

As a minimum, the inventory must cover the following sectors:

- energy;
- industrial processes;
- solvent and other product use;
- agriculture;
- LULUCF; and
- waste.

In the tables of the CRF, each of these sectors is subdivided into different source/sink categories. For example, within the energy sector, the first differentiation occurs between fuel combustion activities and fugitive emissions from fuels. Major source/sink categories for fuel combustion activities are

- energy industries;
- manufacturing industries and construction;
- transport;
- other sectors; and
- other.

Within these categories, energy industries, for example, is further subdivided into:

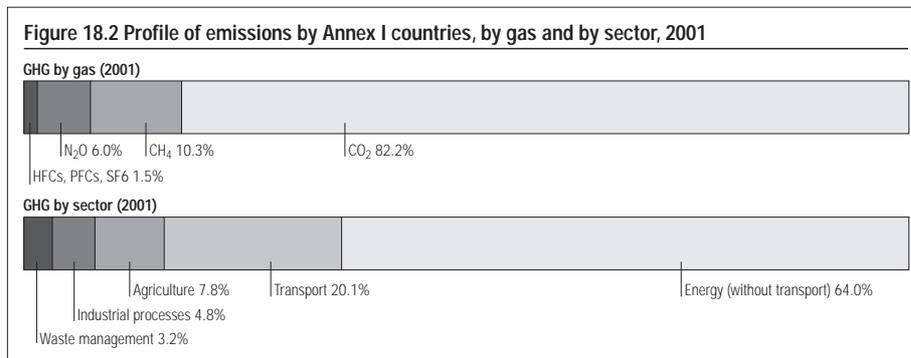
- a. public electricity;
- b. petroleum refining; and
- c. manufacture of solid fuels and other energy industries.

Finally, for each of the subdivisions, emissions estimates are provided for different categories of fuels, as relevant, such as liquid fuels, solid fuels, gaseous fuels, other fuels and biomass.

Emissions and removals have to be reported at the most disaggregated level of each source/sink category, taking into account that a minimum level of aggregation may be required to protect confidential business and military information. Emissions by sources are listed separately from removals by sinks, except for cases where this separation is technically impossible (as may occur in the LULUCF sector).

Estimates of the GHG emissions from a source category are calculated on the basis of **activity data** (indicating the magnitude of human activity that has taken place in this category) and **emission factors** (indicating the quantity of emissions produced from a unit of this activity) (see Box 18.7 for more detailed definitions). For most source categories, the IPCC Guidelines provide a default methodology which includes default emission factors and in some cases default activity data and references. However, the assumptions implicit in these default data, factors and methods may not be appropriate for specific national contexts. Parties are therefore recommended to use their own national emission factors and activity data, where available, provided that they have been developed in a manner consistent with the IPCC good practice guidance, are considered to be more accurate than those calculated using default factors and references, and are reported transparently.

International aviation and marine bunker fuel emissions (see Box 18.6) are not to be included in national totals but reported separately. Parties have to make every effort to separate domestic from international emissions. Additionally, CO₂ emissions from biomass combustion should be reported, but not included in the national totals.



Box 18.6: Emissions from bunker fuels used for international aviation and navigation

International bunker fuels, that is, fuels used by air or marine vessels engaged in international transport, constitute an issue for specific consideration on the SBSTA agenda. In accordance with the IPCC Guidelines and the UNFCCC reporting guidelines, emissions from such fuels are to be calculated as part of the national GHG inventories of Parties, but are to be excluded from national totals and reported separately. These emissions are not subject to the limitation and reduction commitments of Annex I Parties under the Convention and the Kyoto Protocol. In order to address questions on bunker fuel emissions, the Convention's bodies cooperate closely with the relevant international organizations, in particular the International Civil Aviation Organization (ICAO)²³¹ and the International Maritime Organization (IMO)²³².

In 1995, COP 1 asked the SBSTA to address the allocation and control of emissions from international bunker fuels (decision 4/CP.1). It invited relevant international organizations and bodies, including the IPCC, to contribute to this work. SBSTA 4 (December 1996) noted that there were three relevant issues:

- adequate and consistent inventories;
- allocation of emissions (i.e. in what way, if at all, these emissions are to be assigned to Parties' national totals); and
- control options.

At COP 3 in 1997, Parties adopted the Kyoto Protocol, which in Article 2.2 states that Annex I Parties are to pursue limitation or reduction of GHG emissions from aviation and marine bunker fuels, working through the ICAO and the IMO, respectively. The COP also urged the SBSTA to further clarify the question of how to include these emissions in the overall GHG inventories of Parties (decision 2/CP.3).

SBSTA 10 (May–June 1999) considered a *Special Report on Aviation and the Global Atmosphere*²³³ prepared by the IPCC at the request of the ICAO. SBSTA 11 (October–November 1999) affirmed that the quality of reporting by Annex I Parties on bunker fuel emissions needed to be improved, and noted that the issue would be addressed in the forthcoming IPCC good practice guidance, as well as in the new UNFCCC reporting guidelines on annual inventories. COP 5 (1999), by decision 18/CP.5, asked the secretariat to develop its cooperation with the secretariats of the ICAO and IMO.

18.C.2.c. Reporting key categories, totals and trends

Inventory reports should provide an overview of the total level of emissions, of the evolution of emissions over time and of the most significant emission sources in a country. In particular,

- Parties should report **aggregate emissions** and removals of GHGs. These are to be expressed in CO₂ equivalent terms, using 100-year GWP values (see Box 18.7).
- Parties should document **trends** i.e. how emission levels have changed from the base year over the period reported, by gas, by source and for aggregated emissions.
- Parties must identify their national **key categories** (see Box 18.7 for definition) for the base year and the latest reported inventory year, as described in the IPCC good practice guidance. Parties are required to estimate and report the individual and cumulative percentage contributions of emissions from key categories to their national total, with respect to both emission level and emission trend.

²³¹ <<http://www.icao.int>>.

²³² <<http://www.imo.org>>.

²³³ Available at <[http://www.ipcc.ch/pub/av\(E\).pdf](http://www.ipcc.ch/pub/av(E).pdf)>.

SBSTA 14 (July 2001) took note of a report providing an overview and update of activities by the ICAO, the IMO and the UNFCCC secretariat on emissions from bunker fuels²³⁴.

In 2003, the ICAO and the IMO, in consultation with the UNFCCC secretariat, each organized an expert meeting to discuss methodological aspects of compiling and reporting GHG inventory data from international and domestic aviation and navigation. This included discussion of the definitions by which domestic and international fuel uses are separated from each other.

SBSTA 18 (June 2003) took note of the status of methodological work by the ICAO and the IMO and endorsed elements for future methodological work²³⁵. SBSTA 18 and SBSTA 19 (December 2003), called on the ICAO to provide data from validated aviation models that would allow a comparison between UNFCCC inventory data and modelled data for fuel consumption and emissions. SBSTA 19 also agreed to continue consideration of the inclusion of emissions from aviation bunker fuels in the overall GHG inventories of Parties, according to decision 2/CP.3, at SBSTA 22 in 2005.

In response to a mandate from SBSTA 18, the ICAO and the IMO, in consultation with the UNFCCC secretariat, each organized an expert meeting in April 2004. The meetings explored options for improving the methodologies for estimating and reporting bunker fuel emissions as an input to the IPCC's revision of the *Guidelines for preparing national GHG inventories*²³⁶. The ICAO meeting also included a presentation of preliminary results from two new models, in response to the SBSTA's request²³⁷.

As yet, no consensus has been reached on this issue and it therefore remains on the SBSTA's agenda.

Decision 4/CP.1:	Methodological issues
Decision 2/CP.3:	Methodological issues related to the Kyoto Protocol
Decision 18/CP.5:	Emissions based upon fuel sold to ships and aircraft engaged in international transport

Latest documents include: FCCC/SBSTA/2005/INF.2 <<http://unfccc.int/resource/docs/2005/sbsta/eng/inf02.pdf>>, FCCC/SBSTA/2005/MISC.4 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc04.pdf>>, and FCCC/SBSTA/2005/MISC.6 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc06.pdf>>.

18.C.2.d. Reporting methodological issues, consistency, uncertainty management and quality assurance/quality control

In accordance with the IPCC good practice guidance, methods have to be carefully chosen and documented. Inventory data must be of high quality, while shortcomings have to be assessed and made transparent. The NIR to be submitted along with the completed is to provide detailed information on all these issues. In particular:

- the assumptions and methodologies used should be clearly explained for each source or sink category to ensure **transparency**;
- the **uncertainties** in the data used for all source and sink categories must be quantitatively estimated;
- any methodological or data gaps should be documented in a transparent manner to facilitate an assessment of **completeness**;

²³⁴ FCCC/SBSTA/2001/INF.1 <<http://unfccc.int/resource/docs/2001/sbsta/inf01.pdf>>.

²³⁵ See FCCC/SBSTA/2003/INF.3, <<http://unfccc.int/resource/docs/2003/sbsta/inf03.pdf>> which also contains results from the 2003 expert meetings.

²³⁶ A summary of these meetings is provided in FCCC/SBSTA/2004/INF.5 <<http://unfccc.int/resource/docs/2004/sbsta/inf05.pdf>>.

²³⁷ For more information on the models, see FCCC/TP/2003/3 <<http://unfccc.int/resource/docs/tp/tp0303.pdf>>.

Box 18.7: Explanations of specific terms related to inventories

Activity data: data on the magnitude of human activity resulting in emissions or removals taking place during a given period of time. In the energy sector, for example, the annual activity data for fuel combustion sources are the total amounts of fuel burned. Annual activity data for methane emissions from enteric fermentation are the total number of animals (livestock population), categorized by species.

Emission factor: a coefficient that relates the activity data to the amount of chemical compound that is the source of later emissions. For example, it may be estimated that X kg of methane is emitted by one cow per year. Emission factors are often based on a sample of measurement data, averaged to develop a representative rate of emission for a given activity level under a given set of operating conditions.

Key category: a source or sink category that is prioritized within the national inventory system because its estimate has a significant influence on a country's total inventory of direct GHGs in terms of the absolute level of emissions, the trend in emissions, or both.

Indirect greenhouse gases or GHG precursors: compounds which by themselves are not significant as GHGs, but which nevertheless have an effect on the concentration of GHGs in the atmosphere, as they take part in physical or chemical processes regulating the production or destruction rates of GHGs.

Global warming potential: an index that approximates the warming effect of a unit mass of a GHG over a chosen time horizon, relative to that of **carbon dioxide** (the GWP of carbon dioxide is set as 1). For example, the 100-year GWP of a gas expresses the effect on atmospheric warming that it is likely to exert over 100 years relative to that of CO₂.

Quality assurance: a system of review procedures conducted by personnel not directly involved in the process of compiling or developing the inventory. These reviews verify that the objectives for quality of data have been met, ensure that the inventory represents the best possible estimates given the state of scientific knowledge and data available, and support the effectiveness of the quality control (QC) programme.

Quality control: a system of routine technical activities to measure and control the quality of the inventory as it is being developed. This includes methods such as checks on the accuracy of data acquisition and calculations and the use of approved standardized procedures for calculating emissions, measuring, estimating uncertainties, archiving information and reporting.

- inventories for all years covered by the report should be estimated using the same methodologies to ensure **consistency**. Where the methodology has changed, Parties should **recalculate** inventories for former years; and
- a **quality assurance/quality control (QA/QC)** plan is required from each Party (see Box 18.7 for definitions) as well as general and specific quality control procedures for each source/sink category. These plans and procedures must be documented.

18.C.3. Publication, compilation and technical review of annual inventories

The UNFCCC secretariat collects Annex I Parties' annual GHG inventory submissions and makes them publicly available. Based on inventory information, the secretariat also publishes its own reports summarizing the status and trends of GHG emissions and removals in Annex I countries.

In 1997, COP 3 asked the secretariat to "collect, process and publish, on a regular basis," Annex I Parties' annual inventories and to include inventory information in its compilation and synthesis reports of Annex I Parties' national communications (decision 6/CP3).

Box 18.8: LULUCF reporting

The LULUCF sector raises a number of specific issues, including uncertainties in estimation, unavailability of country-specific factors or difficulties in estimating stocks of carbon in soils, for the calculation of GHG emissions and removals. Some of these issues are only relevant in the context of LULUCF activities and related reporting under the Kyoto Protocol but others are also relevant for preparing inventories under the Convention.

The IPCC, at the invitation of COP 7 (decision 11/CP.7), prepared several methodology reports on LULUCF, including *Good Practice Guidance for Land Use, Land-Use Change and Forestry*. This guidance was incorporated into the reporting tables for LULUCF under the Convention (decision 13/CP.9). In 2005 reporting tables for LULUCF were again revised, drawing on the subsequent experience of Parties, and adopted by decision 14/CP.11. In the latest IPCC Guidelines, the LULUCF and Agriculture sectors were merged into one called "Agriculture, Forestry and Other Land Use" (AFOLU). This sector encompasses both agriculture issues, such as methane emissions from rice cultivation, and LULUCF issues, such as changes in carbon stocks resulting from shifts in land-use patterns.

In addition, the SBSTA is considering the treatment of emissions from **harvested wood products (HWP)** reported on a voluntary basis by Parties. While the IPCC is currently developing methods to report these emissions in the context of the 2006 IPCC Guidelines, the SBSTA is considering issues such as estimation of changes in carbon stocks, the impacts of various accounting approaches and the related implications for, for example, trade and sustainable forest management²³⁸. In particular, the need to work on the so-called "accounting approaches" arises whenever the trade of HWP affects the distribution of emissions from the HWP traded between exporters and importers. A technical paper²³⁹ and a workshop report²⁴⁰ by the secretariat further discuss this issue.

In 2002, COP 8 provided more detailed instructions on publishing and compiling inventory information, requesting that the secretariat:

- publish on its web site²⁴¹ the annual inventories of Annex I Parties, consisting of the NIR and CRF, that had been officially submitted, and to publish the addresses of Parties' web sites where these publications were located (decision 18/CP.8); and
- compile aggregate inventory information in a stand-alone document to be published electronically on the UNFCCC web site, and publish a summary document for the consideration of the COP and SBs (decision 19/CP.8)²⁴².

²³⁸ FCCC/SBSTA/2004/13, paras 19-33 <<http://unfccc.int/resource/docs/2004/sbsta/13.pdf>>

²³⁹ FCCC/TP/2003/7 <<http://unfccc.int/resource/docs/tp/tp0307.pdf>> and Corrigendum. Additional information and data on changes in carbon stocks and emissions of GHG from HWP and experiences with the use of relevant guidelines and good practice guidance of the IPCC to generate such data and information can be found in FCCC/SBSTA/2005/MISC.9 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc09.pdf>>, FCCC/SBSTA/2005/MISC.9/Add.1 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc09a01.pdf>>, and FCCC/SBSTA/2005/MISC.9/Add.2 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc09a02.pdf>>, as well as in FCCC/SBSTA/2005/INF.7 <<http://unfccc.int/resource/docs/2005/sbsta/eng/inf07.pdf>>.

²⁴⁰ FCCC/SBSTA/2004/INF.11 <<http://unfccc.int/resource/docs/2004/sbsta/inf11.pdf>>

²⁴¹ <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/2761.php>. An online searchable database where the most recent greenhouse gas emissions and removals data from Parties is also available at <<http://ghg.unfccc.int/index.html>>.

²⁴² See FCCC/CP/2002/8 <<http://unfccc.int/resource/docs/cop8/08.pdf>>, paragraphs 42-43.

The SBI has regularly considered these compilations, and has often expressed concern over the increase in emissions in Annex I Parties that the data indicate. It has also reaffirmed the need for further action to reverse this trend. A compilation of inventory data for the period of 1990–2003 was prepared for SBI 23 in 2005²⁴³.

The annual GHG inventory submissions constitute input to a **technical review** process. This has three stages:

- an initial check;
- a synthesis and assessment; and
- individual reviews of inventories.

A first technical review process was established by COP 5 in 1999, for a two-year trial period covering the inventories submitted in 2000 and 2001 (decision 6/CP.5). While this period included annual initial checks and an annual synthesis and assessment of GHG inventories from all Annex I Parties, individual reviews were only conducted for a limited number of Annex I Parties on a voluntary basis. The trial period was extended at COP 7 in 2001 to include inventories submitted in 2002 (decision 34/CP.7). Since 2003, all Annex I Parties' inventories have been subject to an individual technical review, following guidelines²⁴⁴ adopted at COP 8 (decision 19/CP.8). The guidelines build upon the earlier ones for the trial period²⁴⁵, taking into account the experience gathered since then. Decision 19/CP.8 stipulated that individual reviews should be conducted until the end of the year 2006, subject to availability of resources, and that a report assessing the implementation of the guidelines should be prepared for the SBSTA at its first session in 2006.

According to the guidelines, the technical review of GHG inventories has a four-fold purpose:

- to ensure that the COP has adequate and reliable information on annual inventories and emission trends;
- to provide the COP with an objective, consistent, transparent, thorough and comprehensive technical assessment of the annual inventory information submitted by Annex I Parties, and a technical assessment of the implementation of their commitments under Article 4.1(a) and Article 12.1(a) of the Convention;
- to examine, in a facilitative and open manner, the reported inventory information for consistency with UNFCCC reporting guidelines, as well as the IPCC Guidelines and good practice guidance; and
- to assist Annex I Parties in improving the quality of their GHG inventories.

In the following section, the three stages of the inventory review process are described in further detail.

²⁴³ FCCC/SBI/2005/17 <<http://unfccc.int/resource/docs/2005/sbi/eng/17.pdf>>.

²⁴⁴ FCCC/CP/2002/8 <<http://unfccc.int/resource/docs/cop8/08.pdf>>, pp. 83-92.

²⁴⁵ FCCC/CP/1999/7 <<http://unfccc.int/resource/docs/cop5/07.pdf>>, pp. 109-114.

The **initial check** of annual inventories is prepared by the secretariat. The result is a status report²⁴⁶, the main purpose of which is to provide a brief check of the completeness of the submission, based chiefly on the CRF.

The secretariat also carries out the **synthesis and assessment** of annual inventories. The result is a synthesis and assessment report in two parts. Part I compares inventory data (emission estimates, activity data, implied emission factors and other information) across Parties in tabular form. Part II highlights preliminary issues for further consideration during the individual review. Only Part I is published on the secretariat's web site²⁴⁷; Part II is sent to the Party for comments and subsequently made available to the team carrying out the individual review (see below).

Individual reviews of GHG inventories are carried out by expert teams, coordinated by the secretariat. Each inventory submission is assigned to a single team whose members are selected by the secretariat from experts nominated by Parties and, as appropriate, by intergovernmental organizations. Each team comprises experts on different sectors of inventories (such as energy, industrial processes, agriculture, LULUCF and waste) and one or two generalists. According to decision 12/CP.9, experts must train and pass an examination before they can be invited to participate (see below). Two lead reviewers, one from an Annex I Party and one from a non-Annex I Party, guide the work of the team. Recognizing the special role of lead reviewers, COP 9 asked the secretariat to organize meetings for them to promote a common approach to methodological and procedural issues and to make recommendations to the secretariat on ways to further improve the effectiveness and efficiency of the inventory reviews. Three meetings of inventory lead reviewers have already taken place²⁴⁸. The result of the review is an individual report for each Party²⁴⁹.

The individual reviews are carried out using three different approaches. Most of them are **centralized reviews**, with teams meeting for five or six days at the secretariat. Some are **desk reviews**, where experts work from their own offices. The third sort are **in-country reviews**, where teams visit the countries they are reviewing. Decision 19/CP.8 mandated the secretariat to coordinate eight in-country reviews per year, which means that for each Annex I country an in-country review takes place every five years. The same decision stipulated that desk reviews would be carried out only within the two years following an in-country review. The review process for GHG inventories submitted in 2005 for instance, was organized as follows:

²⁴⁶ Status report for 2006 <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_reports/items/3724.php>.

²⁴⁷ For the synthesis and assessment report on inventories submitted in 2005, see FCCC/WEB/SAI/2005. <<http://unfccc.int/resource/webdocs/sai/2005.pdf>>.

²⁴⁸ Conclusions of the meetings are available through <http://unfccc.int/national_reports/annex_i_ghg_inventories/review_process/items/2762.php>.

²⁴⁹ See <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_reports/items/3723.php>.

- the inventories of 28 Annex I Parties were subject to a centralized review by three expert review teams, each reviewing five to six inventories; and
- nine national inventories were subject to an in-country review, with an individual expert review team set up for each country.

COP 9, by decision 12/CP.9, introduced several provisions that further refined and formalized the review process:

- the secretariat was asked, subject to the availability of resources, to develop and implement a **training programme for members of review teams**, including examination procedures²⁵⁰;
- the COP adopted a **code of practice for the treatment of confidential information**²⁵¹ in the technical review of GHG inventories. In accordance with this decision, the secretariat developed procedures to implement the code of practice²⁵² during the inventory review in 2004 and beyond. They cover submission, processing and handling by the secretariat of any information designated as confidential by an Annex I Party, and the granting of access by expert reviewers to the information. Decision 18/CP.10 further clarifies access to confidential information by expert review teams;
- as of 2004, all members of expert review teams must sign an **agreement for expert review services**²⁵³. The agreement specifies the responsibilities, expected time commitment, and appropriate conduct for members, particularly for the protection of confidential information.

Relevant COP decisions:

Decision 4/CP.1:	Methodological issues
Decision 9/CP.2:	Communications from Parties included in Annex I to the Convention: guidelines, schedule and process for consideration Annex: Revised guidelines for the preparation of national communications by Parties included in Annex I to the Convention
Decision 2/CP.3:	Methodological issues related to the Kyoto Protocol
Decision 3/CP.5:	Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories
Decision 6/CP.5:	Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention

²⁵⁰ Detailed information on the courses can be found at <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_training/items/2763.php>.

²⁵¹ Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/pdf/ext_cp0306a1.pdf>.

²⁵² The UNFCCC confidentiality procedures are available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/pdf/impl_proc.pdf>.

²⁵³ The text of the agreement is available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/pdf/agr_exprev.pdf>.

- Decision 9/CP4: Land use, land use change and forestry
- Decision 11/CP7: Land use, land use change and forestry
- Decision 34/CP7: Revision of the guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories, and the guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention
- Decision 18/CP8: Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, part I: UNFCCC reporting guidelines on annual inventories
- Decision 19/CP8: UNFCCC guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention
- Decision 12/CP9: Issues relating to the technical review of greenhouse gas inventories from Annex I Parties
Annex I: Training programme for members of expert review teams for the technical reviews of greenhouse gas inventories of Parties included in Annex I to the Convention
Annex II: Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention
Annex III: Elements for the inclusion in the agreement for expert review services
- Decision 13/CP9: Good practice guidance for land use, land-use change and forestry in the preparation of national GHG inventories under the Convention
Annex I: Table of the common reporting format for the land use, land-use change and forestry categories for reporting under the Convention
Annex II: Technical modifications to reporting guidelines on annual inventories adopted in decision 18/CP8 for Annex I Parties
- Decision 18/CP10: Issues relating to the technical review of greenhouse gas inventories of Parties included in Annex I to the Convention and the implementation of Article 8 of the Kyoto Protocol
- Decision 14/CP11: Tables of the common reporting format for land use, land-use change and forestry

18.D. National communications from non-Annex I Parties

National communications from non-Annex I Parties follow timetables and guidelines different from those of Annex I Parties. Article 12.5, which sets the initial timetable for national communications, stipulates that each non-Annex I Party “shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3”. Least developed country Parties are

excepted: they “may make their initial communication at their discretion”. As of June 2006, 132 of 148 non-Annex I Parties had submitted their first national communication and three had submitted the second communication. COP 11 decided that non-Annex I Parties should make all efforts to submit their second and third national communications within four years of the initial disbursement of financial resources (decision 8/CP.11). Furthermore, Parties might avail themselves, if necessary, of an extension of up to one year for submission. Those Parties that had not prepared project proposals for the financing of second and third national communications were invited to do so to avoid a break in the continuity of financing. Parties that had submitted their communications should apply for the financing of their subsequent national communications between three to five years after the initial disbursement, except for those that had received this initial disbursement more than five years previously; they had to apply before 2006. The same decision also stated that, as in the case of initial communications, LDCs might submit their second at their discretion.

18.D.1. Relevant provisions of the Convention

The provisions that specifically refer to national communications from non-Annex I Parties are mostly related to providing financial and technical support to them. Article 4.3 requires Annex II Parties to “provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations” under Article 12.1.

Article 4.7 states that “the extent to which developing country Parties will effectively implement their commitments under the Convention [which includes submitting national communications] will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties”. This Article is recalled in the current guidelines for national communications from non-Annex I Parties²⁵⁴.

Furthermore, Article 12.7 states that, from its first session, “the Conference of the Parties shall arrange for the provision to developing country Parties of technical and financial support, on request, in compiling and communicating information ... Such support may be provided by other Parties, by competent international organizations and by the secretariat, as appropriate”.

As a specific element of non-Annex I Parties’ national communications, Article 12.4 provides that developing country Parties “may, on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits”.

²⁵⁴ Annex to decision 17/CP.8, paragraph 27.

The following subsections address:

- the guidelines for preparing national communications by non-Annex I Parties (section 18.D.2);
- the compilation and synthesis of these communications (section 18.D.3); and
- the financial and technical support provided to non-Annex I Parties to enable them to implement their commitments related to national communications (section 18.D.4).

18.D.2. Guidelines

The first guidelines for preparing national communications from non-Annex I Parties were adopted at COP 2 in 1996 (decision 10/CP.2). At COP 8 in 2002, Parties adopted new guidelines²⁵⁵. The preparation of second national communications will be based on these, as will the preparation of third, and, where appropriate, initial national communications. The secretariat has produced a manual²⁵⁶ to facilitate the use of the new guidelines, available in three United Nations languages (English, French and Spanish). It also contains many references for further information. COP 8 also invited Parties that might wish to do so to use elements from the guidelines for preparing national communications from Annex I Parties.

Each Party is obliged to submit its national communication in both hard copy and electronic format, using one of the six official languages of the United Nations. The communication must contain an executive summary, translated into English, which has to be made publicly available. The secretariat puts them on its web site, <unfccc.int>.

In line with Article 12.1 of the Convention, the guidelines provide that the following main elements are to be included in the national communication:

- a national GHG inventory;
- a general description of steps taken or envisaged to implement the Convention; and
- any other information the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication.

In addition, the guidelines stipulate that Parties should also provide information on:

- national circumstances; and
- constraints and gaps, and related financial, technical and capacity needs.

18.D.3. Procedure for compiling and synthesizing the information

National communications from non-Annex I Parties are collected and synthesized by the secretariat but are not subject to in-depth review. Since 1999

²⁵⁵ Decision 17/CP.8 and Annex.

²⁵⁶ The manual is available on the UNFCCC web site at <http://unfccc.int/national_reports/non-annex_i_natcom/guidelines_and_user_manual/items/2607.php>.

Box 18.9: Content of national communications – non-Annex I Parties

National GHG inventory: according to the initial guidelines (decision 10/CP.2), Parties had to estimate GHG emissions and removals for the year 1994, or alternatively provide data for 1990. According to the new guidelines (decision 17/CP.8), Parties are to estimate inventories for the year 2000. Least developed country Parties can estimate their inventories for years at their discretion. In preparing their national inventories, Parties should use the revised 1996 IPCC Guidelines, which are also used by Annex I Parties (see section 18.C). Parties are also encouraged to apply the IPCC good practice guidance (see section 18.C). They are also encouraged to describe procedures and arrangements used to collect and archive data for national GHG inventories. They should also document efforts to make this a continuous process, including information on the role of the institutions involved. Parties are further encouraged to provide information on **methodologies** used in estimating GHG emissions and removals.

The inventories are to cover, as appropriate and to the extent possible, direct GHGs i.e. carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Parties are also encouraged to provide information on hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆), and on indirect GHGs (see Box 18.7) such as carbon monoxide (CO), nitrogen oxides (NO_x) and non-methane volatile organic compounds (NMVOCs). Other gases not controlled by the Montreal protocol, such as sulphur oxides (SO_x), may be included at the discretion of Parties.

Parties should, to the extent possible, report emissions from international aviation and marine bunker fuels (see Box 18.6) separately in their inventories. Emission estimates from these sources should not be included in the national totals.

General description of steps taken or envisaged to implement the Convention: Parties are to detail programmes containing measures to facilitate adequate adaptation to climate change and measures to mitigate climate change. This refers to the implementation of Article 4.1(b) which requires all Parties to formulate, implement, publish and regularly update such programmes nationally and, where appropriate, regionally.

In reporting on their steps related to **adaptation programmes**, Parties should provide information on their vulnerability to the adverse effects of climate change, and on adaptation measures being taken to meet their specific needs and concerns arising from these adverse effects. The section on adaptation programmes may include information on national adaptation programmes of action (NAPAs) for LDCs (see chapter 12).

Parties may use appropriate methodologies and guidelines²⁵⁷ that they consider better able to reflect their national situation for assessing their vulnerability and adaptation to climate change, provided that these methodologies and guidelines are consistent, transparent and well documented. Parties are also encouraged to use

²⁵⁷ Such as the *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations* (Carter, TR., M.L. Parry, H. Harasawa, S. Nishioka, 1994), the *UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies* (Feenstra, J.F., I. Burton, J.B. Smith, R.S.J. Tol, 1998), and the *International Handbook on Vulnerability and Adaptation Assessments* (Benioff, R., S. Guill, J. Lee, 1996). See footnote 4.

appropriate methodologies to evaluate adaptation strategies and measures²⁵⁸, which they consider better able to reflect their national situation.

With respect to mitigation (see also chapter 11.C), Parties are encouraged to use whatever methods are available and appropriate to formulate and prioritize such programmes: this should be done within the framework of sustainable development objectives, which should include social, economic and environmental factors. In assessing these programmes for various sectors of the economy, non-Annex I Parties may use the appropriate technical resources²⁵⁹.

Other information considered relevant to the achievement of the objective of the Convention: Parties are encouraged to detail:

- steps taken to **integrate climate change into relevant social, economic and environmental policies and actions**, according to Article 4.1(f) of the Convention;
- **transfer of technologies** (referring to Article 4.5 and decision 4/CP.7; see chapter 14);
- **research and systematic observation** (see chapter 15), including participation in and contribution to activities and programmes, such as the GCOS, the GTOS and the GOOS (decision 5/CP.5 invites non-Annex I Parties to use the guidelines for reporting on global climate observing systems adopted by this decision; see chapter 15.B); Parties are also encouraged to provide information on research related to mitigation programmes, adaptation programmes, and the preparation of national inventories;
- **education, training and public awareness** (see chapter 16);
- **capacity-building** (see chapter 17), in particular on the implementation of activities within the *Framework for capacity-building in developing countries* (annex to decision 2/CP.7);
- information sharing among and within countries and regions.

National circumstances: Parties should provide a description of their national and regional development priorities, objectives and circumstances, in the light of which they will address climate change and its adverse effects. This may include features of their geography, climate and economy which may affect their ability to deal with mitigating and adapting to climate change, as well as information on their specific needs and concerns arising from adverse effects of climate change or the impact of the implementation of response measures (in the sense of Article 4.8 and 4.9 and/or Article 4.10 of the Convention).

Constraints and gaps, and related financial, technical and capacity needs: Parties should describe any constraints and gaps they have encountered in implementing the Convention, as well as activities to fill them. They should also provide information on financial resources and technical support they have provided or received in preparing national communications and in other actions related to climate change. They are also encouraged to provide a list of projects proposed for financing, according to Article 12.4 of the Convention.

²⁵⁸ Such as those contained in the *Compendium of Decision Tools to Evaluate Strategies for Adaptation to Climate Change* which is available from the UNFCCC web site, <http://unfccc.int/adaptation/methodologies_for/vulnerability_and_adaptation/items/2674.php> see footnote 5.

²⁵⁹ Such as *Technologies, Policies and Measures for Mitigating Climate Change* (IPCC Technical Paper I) <<http://www.gcric.org/ipcc/techrepl1/index.html>>; *Greenhouse Gas Mitigation Assessment: A Guidebook by the U.S. Country Studies Program; Climate Change 2001: Mitigation* (Contribution of Working Group III to the Third Assessment Report of the IPCC). <http://unfccc.int/resource/cd_roms/na1/mitigation/index.htm> and <www.ipcc.ch>.

the secretariat has prepared six compilation and synthesis reports, to take account of new initial communications submitted by Parties. The reports are considered by the SBI and the COP.

As requested by COP 9 (decision 2/CP.9), the secretariat compiled a synthesis of information from all initial national communications submitted up to 1 April 2005²⁶⁰ for SBI 23 and COP 11. The SBI noted that non-Annex I Parties were continuing to fulfil their commitments under Articles 4.1 and 12.1 of the Convention.

18.D.4. Support for the preparation of national communications

This section describes the support that is provided to non-Annex I Parties by:

- the secretariat (18.D.4.a);
- the GEF and other organizations (18.D.4.b); and
- the Consultative Group of Experts (CGE) (18.D.4.c).

18.D.4.a. Support by the secretariat

Article 8.2(c) of the Convention and subsequent COP decisions assigned an important role to the secretariat in facilitating financial and technical assistance to non-Annex I Parties in preparing their national communications. This assistance includes facilitating the work of the CGE (decision 3/CP.8), organizing workshops²⁶¹ and side-events, collaborating with bilateral and multilateral support programmes, disseminating information through regional workshops and expert group meetings and promoting information exchange²⁶² and capacity-building. In 1996, COP 2, by decision 10/CP.2, asked the secretariat to provide a report on these activities to the subsidiary bodies at each of their sessions²⁶³. Following this decision and a request by SBI 18, the secretariat has made available to each SBI session details of the financial support provided by the GEF for preparing initial and subsequent national communications²⁶⁴. Following decision 2/CP.9 the secretariat has also prepared a document on possible ways of facilitating the implementation of projects proposed for funding by non-Annex I Parties, in accordance with

²⁶⁰ FCCC/SBI/2005/18 <<http://unfccc.int/resource/docs/2005/sbi/eng/18.pdf>>, FCCC/SBI/2005/18/Add.1 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a01.pdf>>, FCCC/SBI/2005/18/Add.2 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf>>, FCCC/SBI/2005/18/Add.3 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a03.pdf>>, FCCC/SBI/2005/18/Add.4 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a04.pdf>>, FCCC/SBI/2005/18/Add.5 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a05.pdf>>, and FCCC/SBI/2005/18/Add.6 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a06.pdf>>.

²⁶¹ For information on the latest workshops on the use of guidelines and preparation of national communications for non-Annex I Parties, see <http://unfccc.int/meetings/workshops/other_meetings/items/2945.php> and <http://unfccc.int/meetings/workshops/other_meetings/items/1071.php>.

²⁶² See for example, links to selected training material at http://unfccc.int/national_reports/non-annex_i_natcom/training_material/methodological_documents/items/349.php. See also the secretariat's newsletter focusing on efforts to support non-Annex I Parties in the implementation of the Convention available at <http://unfccc.int/national_reports/non-annex_i_natcom/nai_newsletter/items/354.php>.

²⁶³ The latest report on secretariat's activities is contained in FCCC/SBI/2004/INF.2 <<http://unfccc.int/resource/docs/2004/sbi/inf02.pdf>>.

²⁶⁴ The latest information is available in FCCC/SBI/2006/INF.01 <<http://unfccc.int/resource/docs/2006/sbi/eng/inf01.pdf>>.

Article 12.4, on a voluntary basis²⁶⁵. SBI 23 invited bilateral and multilateral assistance programmes to support non-Annex I Parties in formulating and developing project proposals identified in national communications, as well as in subsequently implementing them.

18.D.4.b. Support by the GEF and other organizations

In accordance with guidance of the COP, the GEF, as an operating entity of the financial mechanism of the Convention, provides to non-Annex I Parties (see chapters 4 and 13). Many bilateral agencies have also provided financial and technical assistance to non-Annex I Parties in preparing their national communications.

Financial support for national communications is provided by the GEF under its programme category of enabling activities (see chapter 13). In response to the guidance provided by COP 8 (decisions 6/CP.8 and 17/CP.8), the GEF has prepared operational procedures for the expedited financing of national communications from non-Annex I Parties on the basis of the guidelines for national communications adopted at COP 8²⁶⁶. Expedited financing under these procedures is available up to US\$405,000 per country; an additional US\$15,000 per country can be provided for stocktaking and stakeholder consultations (“self-assessment”) in preparing the project proposals related to the national communications. Proposals that exceed US\$405,000 require approval by the GEF Council and are treated as full-sized projects (see chapter 13). For its last reporting period, July 2004–August 2005, the GEF disbursed US\$12.07 million for the preparation of second and other national communications²⁶⁷.

Decision 4/CP.9 asked the GEF to monitor the performance of the global project to support the preparation of national communications. It also called on the GEF to provide timely funding for the preparation of national communications by non-Annex I Parties whose project activities were not covered by the project.

In response, and in order to streamline the approval process for individual projects under the expedited procedures, the GEF, with the UNDP and UNEP, has launched an umbrella project, the **National Communications Programme for Climate Change**. Implementation started in 2004 and is scheduled to last six years (i.e. until 2009). Under this programme, expedited financing for national communications of up to 130 countries is foreseen. Most countries have already requested GEF funds for the self-assessment exercise recommended as a first step in preparing project proposals for national communications. Since April 2004, UNDP and UNEP have approved 110 country requests for assistance to conduct stocktaking.

²⁶⁵ FCCC/SBI/2004/INF.16 <<http://unfccc.int/resource/docs/2004/sbi/inf16.pdf>>.

²⁶⁶ *Operational Procedures for the Expedited Financing of National Communications from Non-Annex I Parties*. GEF/C.22/Inf.16, 4 November 2003 <http://thegef.org/Documents/C.22.Inf16_Expediting_Financing_of_National_CommunicationsFINAL.doc>.

²⁶⁷ FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>

The GEF, in its last report to the COP²⁶⁸, noted that non-Annex I Parties that had not yet received financing to strengthen their capacity to identify and assess technology needs might also request and receive additional funding for this purpose within the context of their second national communications. The technical assistance component of the programme, the **National Communications Support Programme (NCSP)**²⁶⁹, began its phase II activities in July 2005. Phase I had successfully assisted around 130 non-Annex I Parties in preparing their initial national communications through workshops, web-based training and assistance, distillation and dissemination of best practices, strategic development of tools and methods, and technical feedback on national communications. Phase II will focus on sharing best practices, lessons learned, current knowledge, network support, targeted training activities and the development of methodologies and tools.

At SBI 21, Parties invited the GEF to continue providing support for the preparation of initial and subsequent national communications to those non-Annex I Parties that had yet to submit their initial national communication.

18.D.4.c. Support by the CGE

COP 5 (1999) established a **Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE)** to improve the process of preparing national communications by non-Annex I Parties (decision 8/CP.5; see chapter 2). The group comprises 24 experts, including five experts from each of the United Nations regions of Africa, Asia and the Pacific, and Latin America and the Caribbean; six experts from Annex I Parties; and three from international organizations with relevant experience²⁷⁰.

The CGE met five times under the terms of reference defined by COP 5. In 2000/2001, it held four workshops – three regional workshops for Africa, Asia, and Latin America and the Caribbean, respectively, and one interregional workshop. These workshops were designed to exchange regional experiences in preparing national communications and to draw up recommendations for addressing specific needs and concerns of non-Annex I Parties. Two further workshops were organized in 2002, following decision 31/CP.7. This decision covered the issues to be added to the mandate of the CGE: identify and assess technical problems and constraints connected with preparing initial national communications not yet completed and provide input to the revised guidelines for preparing national communications.

The CGE also submitted two reports to the subsidiary bodies in 2001 and 2002²⁷¹. The first contained analysis and recommendations on specific elements of national communications, such as GHG inventories, vulnerability and adaptation

²⁶⁸ FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>.

²⁶⁹ <<http://ncsp.undp.org>>.

²⁷⁰ See the list of experts at <http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2884.php>.

²⁷¹ First report: FCCC/SBI/2001/8 <<http://unfccc.int/resource/docs/2001/sbi/08.pdf>> (preliminary version) and FCCC/SBI/2001/15 <<http://unfccc.int/resource/docs/2001/sbi/15.pdf>> (final version); second report: FCCC/SBI/2002/15 <<http://unfccc.int/resource/docs/2002/sbi/15.pdf>>.

assessment, and analysis of GHG abatement. In particular, recommendations were made for financial and technical support and for the improvement of the IPCC methodologies and other models, and of the UNFCCC guidelines.

The second described and analysed the main technical problems and constraints encountered in preparing initial national communications, as well as the activities and programmes required to facilitate their preparation. The CGE also contributed to the revision of the guidelines for national communications from non-Annex I Parties²⁷².

In 2002, COP 8 expressed satisfaction with the role the CGE had played in improving the process of preparing national communications from non-Annex I Parties (3/CP.8). It decided to continue the mandate of the CGE under revised terms of reference. These mandate the CGE inter alia to:

- identify and assess technical problems and constraints that have affected the preparation of initial national communications by non-Annex I Parties that have yet to complete them;
- identify and assess, as appropriate, the difficulties encountered by non-Annex I Parties in the use of the guidelines and methodologies for the preparation of national communications and make recommendations for their improvement;
- examine national communications submitted to the secretariat;
- provide technical advice and support by organizing and conducting workshops, including hands-on training²⁷³;
- review existing activities and programmes for facilitating and supporting the preparation of national communications by non-Annex I Parties; and
- provide, as appropriate, technical advice to the SBI on matters relating to the implementation of the Convention by non-Annex I Parties.

In the same decision, Annex II Parties were invited to provide financial support for the workshops organized by the CGE. The secretariat was asked to continue its support to the work of the CGE, and boost electronic communication among its members. It was also asked to compile reports of CGE meetings and workshops for consideration by the SBI.

The CGE is now implementing its work programme for 2003–2007²⁷⁴. The reconstituted CGE held meetings in September 2003²⁷⁵, May 2004²⁷⁶, December 2004²⁷⁷, April 2005²⁷⁸, November 2005 and March 2006²⁷⁹.

²⁷² FCCC/SBI/2002/INF08 <<http://unfccc.int/resource/docs/2002/sbi/inf08.pdf>>.

²⁷³ Access the complete set of training materials on GHG inventories, vulnerability and adaptation and mitigation assessments developed by the CGE at <http://unfccc.int/resource/cd_roms/na1/start.htm>.

²⁷⁴ FCCC/SBI/2003/INF17, Annex II <<http://unfccc.int/resource/docs/2003/sbi/inf17.pdf>>.

²⁷⁵ FCCC/SBI/2003/INF7 <<http://unfccc.int/resource/docs/2003/sbi/inf07.pdf>>.

²⁷⁶ FCCC/SBI/2004/INF5 <<http://unfccc.int/resource/docs/2004/sbi/inf05.pdf>>.

²⁷⁷ FCCC/SBI/2005/7 <<http://unfccc.int/resource/docs/2005/sbi/eng/07.pdf>>.

²⁷⁸ FCCC/SBI/2005/22 <<http://unfccc.int/resource/docs/2005/sbi/eng/22.pdf>>.

²⁷⁹ Reports of the 5th and 6th meetings of the CGE are contained in FCCC/SBI/2006/8 <<http://unfccc.int/resource/docs/2006/sbi/eng/08.pdf>>.

It established four thematic groups to examine national communications: national GHG inventories, vulnerability and adaptation assessments, mitigation assessments, and cross-cutting themes which include research and systematic observation, technology transfer, capacity-building, education, training and public awareness, information and networking, and financial and technical support. As an important element of its work programme, the CGE organized several regional hands-on training workshops in 2004 and 2005, each focusing on one of the themes²⁸⁰. SBI 23 endorsed the CGE's planned activities for 2006, including further workshops²⁸¹. Parties also further elaborated the mandate of the CGE which was requested to:

- advise on how to integrate information in NAPAs into the second and subsequent national communications of non-Annex I Parties;
- develop a cost-effective and comprehensive training strategy and other technical support;
- recommend ways to improve the reporting of projects identified in non-Annex I national communications; and
- advise on how to improve access to financial and technical support for the preparation of national communications.

The CGE and the secretariat expressed appreciation for the Annex II Parties' financial assistance for developing training materials and organizing hands-on workshops. As of the end of 2005, 164 experts from 90 non-Annex I Parties have attended training and gained skills in national GHG inventories, vulnerability and adaptation assessments, and mitigation assessments.

SBI 24 will consider a report from the CGE on the outcomes of its examination of national communications from non-Annex I Parties²⁸². The recommendations for improving the preparation of their national communications will be used by the SBI when providing technical advice on how to further facilitate the process.

The latest note by the secretariat on the activities of the CGE²⁸³ stated that it was expected to complete its mandate to conduct regional training workshops in 2006. Following the regional training workshop on vulnerability and adaptation assessments for the Asia and the Pacific region, experts from non-Annex I Parties expressed the need for more focused technical support at the subregional level. Experts also asked the CGE to assist them in accessing and/or developing tools and methods for specific areas of vulnerability such as the water, agriculture, health, tourism and marine/fisheries sectors.

²⁸⁰ Information on workshops is available at <http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2885.php>.

²⁸¹ Report of the CGE hands-on training workshop on vulnerability and adaptation assessments for the Asia and the Pacific region held in Jakarta, Indonesia, 20-24 March 2006 is contained in FCCC/SBI/2006/8 <<http://unfccc.int/resource/docs/2006/sbi/eng/08.pdf>>.annex_i_natcom/cge/items/2885.php>.

²⁸² FCCC/SBI/2006/4 <<http://unfccc.int/resource/docs/2006/sbi/eng/04.pdf>>.

²⁸³ FCCC/SBI/2006/8 <<http://unfccc.int/resource/docs/2006/sbi/eng/08.pdf>>.

The lessons from the regional workshops will provide a useful contribution to developing technical support to non-Annex I Parties. The CGE, at its seventh meeting, will develop a comprehensive training strategy to address the needs identified. In addition, it will actively cooperate with the NCSP, bilateral and multilateral agencies and other international organizations to ensure that experiences gained from the workshops are considered in the design of future technical support programmes.

Another part of the CGE's ongoing work is to explore ways of strengthening cooperation with other expert groups under the Convention, namely the Expert Group on Technology Transfer (EGTT; see chapters 2 and 14) and the Least Developed Countries Expert Group (LEG; see chapters 2 and 13).

Relevant COP decisions:

- Decision 8/CP.1: First communications from Parties not included in Annex I to the Convention
- Decision 10/CP.2: Communications from Parties not included in Annex I to the Convention: guidelines, facilitation and process for consideration
Annex: Guidelines for the preparation of initial communications by Parties not included in Annex I to the Convention
- Decision 12/CP.4: Initial national communications from Parties not included in Annex I to the Convention
- Decision 7/CP.5: First compilation and synthesis of initial communications from Parties not included in Annex I to the convention
- Decision 8/CP.5: Other matters related to communications from Parties not included in Annex I to the Convention
Annex: Terms of reference of the consultative group of experts on national communications from Parties not included in Annex I to the Convention
- Decision 3/CP.6: Second compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention
- Decision 30/CP.7: Third compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention
- Decision 31/CP.7: Consultative Group of Experts on National Communications from non-Annex I Parties
- Decision 32/CP.7: Other matters relating to communications from Parties not included in Annex I to the Convention
- Decision 2/CP.8: Fourth compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention
- Decision 3/CP.8: Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention

- Annex: Terms of reference of the Consultative Group of Experts on national Communications from Parties not included in Annex I to the Convention
- Decision 17/CP.8: Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention
- Annex: Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention
- Decision 2/CP.9: Compilation and synthesis of initial national communications
- Decision 8/CP.11: Submission of second and, where appropriate, third national communications

Keeping up the momentum: the dialogue

By its decision 1/CP.11, the COP resolved to engage in a dialogue to exchange experiences and analyse strategic approaches for long-term cooperative action to address climate change. According to the decision, the dialogue, which is without prejudice to any future negotiations, commitments, process, framework or mandate under the Convention, should include the following areas:

- advancing development goals in a sustainable way;
- addressing action on adaptation;
- realizing the full potential of technology;
- realizing the full potential of market-based opportunities.

The dialogue will take the form of an open and non-binding exchange of views, information and ideas to support enhanced implementation of the Convention; it will not open any negotiations leading to new commitments. In addition, it will be informed by the best available scientific knowledge on climate change and assessments of its impacts from the IPCC and other relevant scientific, technical, social and economic information.

The dialogue should enable Parties to continue to develop effective and appropriate national and international responses to climate change. It should identify approaches which would support actions put forward voluntarily by developing countries that promote local sustainable development and mitigate climate change in a manner appropriate to national circumstances. These approaches should also provide enabling conditions for such actions. Included should be concrete ways for countries, especially developing countries, to manage and adapt to climate change.

It will also serve as a forum for identifying actions to promote research, development, and deployment of cleaner technologies and infrastructure and to encourage investment in these technologies. Furthermore, the dialogue should explore how to improve the access of developing countries to such technologies and to those that assist adaptation to climate change by creating enabling environments and by concrete actions and programmes.

The COP decided that the dialogue would be conducted under its guidance and would take place in up to four workshops, pre-sessional where possible, open to all Parties. Two co-facilitators, one from an Annex I Party and one from a non-Annex I Party, will be selected by each group of Parties. They will report on the dialogue and on the information and diversity of views presented by Parties to COP 12 (November 2006) and COP 13 (December 2007).

Parties were invited to submit their initial views on the issues to be discussed in the dialogue to the secretariat, no later than 15 April 2006.

Relevant COP decisions:

Decision 1/CP.11: Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention



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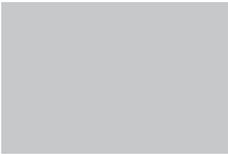
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