

3.14a

The Kyoto Protocol on climate change

The Kyoto Protocol was adopted at the third conference of the parties to the United Nations Framework Convention on Climate Change, held in Kyoto, Japan, in December 1997 and was open for signature from March 1998 onward.

At the heart of the protocol are its legally binding greenhouse gas emissions targets for industrial and transition economies (known as "Annex I Parties"), which accounted for at least 55 percent of carbon dioxide emissions in 1990. The emissions targets amount to an aggregate reduction of greenhouse gas emissions by all Annex I Parties of at least 5 percent from 1990 levels during the commitment period, 2008–12. All Annex I Parties have individual emissions targets, which were decided in Kyoto after intensive negotiation and are listed in the protocol's Annex B.

The protocol's rules focus on:

- Commitments, including legally binding emissions targets and general commitments.
- Implementation, including domestic steps and three novel implementing mechanisms.
- Minimization of impacts on developing countries, including use of an Adaptation Fund.
- Accounting, reporting, and review, including in-depth review of national reporting.
- Compliance, including a Compliance Committee to assess and deal with problem cases.

In addition to emissions targets for Annex I Parties, the Kyoto Protocol also contains a set of general commitments that apply to all parties, such as:

- Improving the quality of emissions data.
- Mounting national mitigation and adaptation programs.
- Promoting environmentally friendly technology transfer.
- Cooperating in scientific research and international climate observation networks.
- Supporting education, training, public awareness, and capacity building initiatives.

The Protocol is subject to ratification, acceptance, approval, or accession by Parties to the Convention, which bind the parties to the protocol's commitments, once the protocol comes into force.

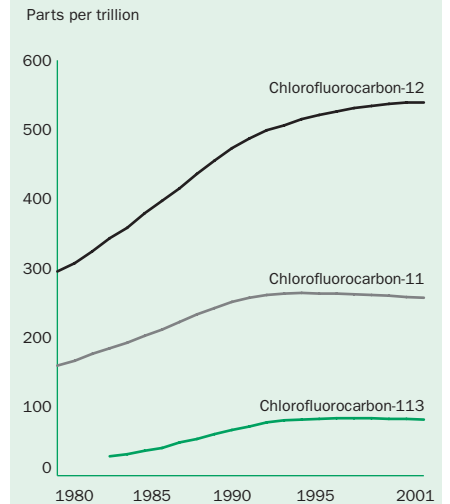
The table contains the latest information on dates of signature and ratification from the Secretary-General of the United Nations, the depository of the Kyoto Protocol. The dates are those of the receipt of the instrument of ratification, acceptance, approval, or accession. With a total of 141 countries accounting for at least 55 percent of global greenhouse gas emissions, the Kyoto Protocol finally came into force and became a legally binding treaty on February 16, 2005.

	Environmental strategies or action plans	Biodiversity assessments, strategies, or action plans	Participation in treaties					
			Climate change ^b	Ozone layer	CFC control	Law of the Sea ^c	Biological diversity ^b	Kyoto Protocol
Afghanistan	..	..	2002	2004	2004	..	2002	..
Albania	1993	..	1995	1999	1999	2003 ^f	1994 ^f	..
Algeria	2001	..	1994	1992	1992	1996	1995	..
Angola	..	..	2000	2000	2000	1994	1998	..
Argentina	1992	..	1994	1990	1990	1995	1994	2001
Armenia	..	..	1994	1999	1999	2002 ^f	1993 ^d	2003 ^f
Australia	1992	1994	1994	1987	1989	1994	1993	..
Austria	..	..	1994	1987	1989	1995	1994	2002
Azerbaijan	1998	..	1995	1996	1996	..	2000 ^e	2000 ^f
Bangladesh	1991	1990	1994	1990	1990	2001	1994	2001 ^f
Belarus	..	..	2000	1986	1988	..	1993	..
Belgium	..	..	1996	1988	1988	1998	1996	2002
Benin	1993	..	1994	1993	1993	1997	1994	2002 ^f
Bolivia	1994	1988	1995	1994	1994	1995	1994	1999
Bosnia and Herzegovina	..	..	2000	1992	1992	1994 ^g	2002 ^f	..
Botswana	1990	1991	1994	1991	1991	1994	1995	2003 ^f
Brazil	..	1988	1994	1990	1990	1994	1994	2002
Bulgaria	..	1994	1995	1990	1990	1996	1996	2002
Burkina Faso	1993	..	1994	1989	1989	..	1993	..
Burundi	1994	1989	1997	1997	1997	..	1997	2001 ^f
Cambodia	1999	..	1996	2001	2001	..	1995 ^f	2002 ^f
Cameroon	..	1989	1995	1989	1989	1994	1994	2002 ^f
Canada	1990	1994	1994	1986	1988	2003	1992	2002
Central African Republic	..	..	1995	1993	1993	..	1995	..
Chad	1990	..	1994	1989	1994	..	1994	..
Chile	..	1993	1995	1990	1990	1997	1994	2002
China	1994	1994	1994	1989	1991	1996	1993	2002 ^e
Hong Kong, China	..	..	..	..	..	..	..	..
Colombia	1998	1988	1995	1990	1993	..	1994	2001 ^f
Congo, Dem. Rep.	..	1990	1995	1994	1994	1995	1996	..
Congo, Rep.	..	1990	1997	1994	1994	..	1994	..
Costa Rica	1990	1992	1994	1991	1991	1994	1994	2002
Côte d'Ivoire	1994	1991	1995	1993	1993	1994	1994	..
Croatia	2001	2000	1996	1991	1991	1994 ^g	1996	..
Cuba	..	..	1994	1992	1992	1994	1994	2002
Czech Republic	1994	..	1994	1993	1993	1996	1993 ^e	2001 ^e
Denmark	1994	..	1994	1988	1988	2004	1993	2002
Dominican Republic	..	1995	1999	1993	1993	..	1996	2002 ^f
Ecuador	1993	1995	1994	1990	1990	..	1993	2000
Egypt, Arab Rep.	1992	1988	1995	1988	1988	1994	1994	..
El Salvador	1994	1988	1996	1992	1992	..	1994	1998
Eritrea	1995	..	1995	..	..	..	1996 ^f	..
Estonia	1998	..	1994	1996	1996	..	1994	2002
Ethiopia	1994	1991	1994	1994	1994	..	1994	..
Finland	1995	..	1994	1986	1988	1996	1994 ^d	2002
France	1990	..	1994	1987	1988	1996	1994	2002 ^e
Gabon	..	1990	1998	1994	1994	1998	1997	..
Gambia, The	1992	1989	1994	1990	1990	1994	1994	2001 ^f
Georgia	1998	..	1994	1996	1996	1996 ^f	1994 ^f	1999 ^f
Germany	..	..	1994	1988	1988	1994 ^f	1993	2002
Ghana	1992	1988	1995	1989	1989	1994	1994	2003 ^f
Greece	..	..	1994	1988	1988	1995	1994	2002
Guatemala	1994	1988	1996	1987	1989	1997	1995	1999
Guinea	1994	1988	1994	1992	1992	1994	1993	2000 ^f
Guinea-Bissau	1993	1991	1996	2002	2002	1994	1995	..
Haiti	1999	..	1996	2000	2000	1996	1996	..

	Environmental strategies or action plans	Biodiversity assessments, strategies, or action plans	Participation in treaties						
			Climate change ^b	Ozone layer	CFC control	Law of the Sea ^c	Biological diversity ^b	Kyoto Protocol	
Honduras	1993	..	1996	1993	1993	1994	1995	2000	
Hungary	1995	..	1994	1988	1989	2002	1994	2002 ^f	
India	1993	1994	1994	1991	1992	1995	1994	2002 ^f	
Indonesia	1993	1993	1994	1992	1992	1994	1994	2004	
Iran, Islamic Rep.	..	..	1996	1990	1990	..	1996	..
Iraq	..	..	..	..	..	1994	..	..
Ireland	..	..	1994	1988	1988	1996	1996	2002
Israel	..	..	1996	1992	1992	..	1995	2004
Italy	..	..	1994	1988	1988	1995	1994	2002
Jamaica	1994	..	1995	1993	1993	1994	1995	1999 ^f	
Japan	..	..	1994	1988	1988	1996	1993 ^d	2002 ^d
Jordan	1991	..	1994	1989	1989	1995 ^f	1993	2003 ^f	
Kazakhstan	..	..	1995	1998	1998	..	1994	..
Kenya	1994	1992	1994	1988	1988	1994	1994	..	
Korea, Dem. Rep.	..	..	1995	1995	1995	..	1994 ^e	..
Korea, Rep.	..	..	1994	1992	1992	1996	1994	2002
Kuwait	..	..	1995	1992	1992	1994	2002	..
Kyrgyz Republic	1995	..	2000	2000	2000	..	1996 ^e	2003 ^f	
Lao PDR	1995	..	1995	1998	1998	1998	1996 ^e	2003 ^f	
Latvia	..	..	1995	1995	1995	..	1995	2002
Lebanon	..	..	1995	1993	1993	1995	1994	..
Lesotho	1989	..	1995	1994	1994	..	1995	2000 ^f	
Liberia	..	..	2003	1996	1996	..	2000	2002 ^f
Libya	..	..	1999	1990	1990	..	2001	..
Lithuania	..	..	1995	1995	1995	2003 ^f	1996	2003
Macedonia, FYR	..	..	1998	1994	1994	1994 ^g	1997 ^f	2004 ^f
Madagascar	1988	1991	1999	1996	1996	2001	1996	2003 ^f	
Malawi	1994	..	1994	1991	1991	..	1994	2001 ^f	
Malaysia	1991	1988	1994	1989	1989	1996	1994	2002	
Mali	..	1989	1995	1994	1994	1994	1995	2002	
Mauritania	1988	..	1994	1994	1994	1996	1996	..	
Mauritius	1990	..	1994	1992	1992	1994	1992	2001 ^f	
Mexico	..	1988	1994	1987	1988	1994	1993	2000	
Moldova	2002	..	1995	1996	1996	..	1995	2003 ^f	
Mongolia	1995	..	1994	1996	1996	1996	1993	1999 ^f	
Morocco	..	1988	1996	1995	1995	..	1995	2002 ^f	
Mozambique	1994	..	1995	1994	1994	1997	1995	2005 ^f	
Myanmar	..	1989	1995	1993	1993	1996	1995	2003 ^f	
Namibia	1992	..	1995	1993	1993	1994	1997	2003 ^f	
Nepal	1993	..	1994	1994	1994	1998	1993	..	
Netherlands	1994	..	1994	1988	1988	1996	1994 ^d	2002 ^f	
New Zealand	1994	..	1994	1987	1988	1996	1993	2002	
Nicaragua	1994	..	1996	1993	1993	2000	1995	1999	
Niger	..	1991	1995	1992	1992	..	1995	2004	
Nigeria	1990	1992	1994	1988	1988	1994	1994	..	
Norway	..	1994	1994	1986	1988	1996	1993	2002	
Oman	..	..	1995	1999	1999	1994	1995	2005 ^f
Pakistan	1994	1991	1994	1992	1992	1997	1994	..	
Panama	1990	..	1995	1989	1989	1996	1995	1999	
Papua New Guinea	1992	1993	1994	1992	1992	1997	1993	2002	
Paraguay	..	..	1994	1992	1992	1994	1994	1999
Peru	..	1988	1994	1989	1993	..	1993	2002	
Philippines	1989	1989	1994	1991	1991	1994	1993	2003	
Poland	1993	1991	1994	1990	1990	1998	1996	2002	
Portugal	1995	..	1994	1988	1988	1997	1993	2002 ^e	
Puerto Rico	..	..	..	..	..	..	..	..

3.14b

Global atmospheric concentrations of chlorofluorocarbons have leveled off



Note: Chlorofluorocarbon-11, chlorofluorocarbon-12, and chlorofluorocarbon-113 are potent depletors of stratospheric ozone.

Source: World Resources Institute and others 2002.



	Environmental strategies or action plans	Biodiversity assessments, strategies, or action plans	Participation in treaties					
			Climate change ^b	Ozone layer	CFC control	Law of the Sea ^c	Biological diversity ^b	Kyoto Protocol
Romania	1995	..	1994	1993	1993	1996	1994	2001
Russian Federation	1999	1994	1995	1986	1988	1997	1995	2004
Rwanda	1991	..	1998	2001	2001	..	1996	2004 ^f
Saudi Arabia	..	..	1995	1993	1993	1996	2001 ^e	2005 ^f
Senegal	1984	1991	1995	1993	1993	1994	1994	2001 ^f
Sierra Leone	1994	..	1995	2001	2001	1994	1994 ^e	..
Singapore	1993	1995	1997	1989	1989	1994	1995	..
Slovak Republic	..	..	1994	1993	1993	1996	1994 ^e	2002
Slovenia	1994	..	1996	1992	1992	1995 ^g	1996	2002
Somalia	..	..	..	2001	2001	1994	..	..
South Africa	1993	..	1997	1990	1990	1997	1995	2002 ^f
Spain	..	..	1994	1988	1988	1997	1995	2002
Sri Lanka	1994	1991	1994	1989	1989	1994	1994	2002 ^f
Sudan	..	..	1994	1993	1993	1994	1995	2004
Swaziland	..	..	1997	1992	1992	..	1994	..
Sweden	..	..	1994	1986	1988	1996	1993	2002
Switzerland	..	..	1994	1987	1988	..	1994	2003
Syrian Arab Republic	1999	..	1996	1989	1989	..	1996	..
Tajikistan	..	..	1998	1996	1998	..	1997 ^e	..
Tanzania	1994	1988	1996	1993	1993	1994	1996	2002 ^f
Thailand	..	..	1995	1989	1989	..	2004	2002
Togo	1991	..	1995	1991	1991	1994	1995 ^d	2004 ^f
Trinidad and Tobago	..	..	1994	1989	1989	1994	1996	1999
Tunisia	1994	1988	1994	1989	1989	1994	1993	2003 ^f
Turkey	1998	..	2004	1991	1991	..	1997	..
Turkmenistan	..	..	1995	1993	1993	..	1996 ^e	1999
Uganda	1994	1988	1994	1988	1988	1994	1993	2002 ^f
Ukraine	1999	..	1997	1986	1988	1999	1995	2004
United Arab Emirates	..	..	1996	1989	1989	..	2000	2005 ^f
United Kingdom	1995	1994	1994	1987	1988	1997 ^f	1994	2002
United States	1995	1995	1994	1986	1988	..	..	..
Uruguay	..	..	1994	1989	1991	1994	1993	2001
Uzbekistan	..	..	1994	1993	1993	..	1995 ^e	1999
Venezuela	..	..	1995	1988	1989	..	1994	..
Vietnam	..	1993	1995	1994	1994	1994	1994	2002
West Bank and Gaza	..	..	..	..	..	..	..	..
Yemen, Rep.	1996	1992	1996	1996	1996	1994	1996	2004 ^f
Yugoslavia, Fed. Rep.	..	..	2001	1992	1992	2001 ^g	2002	..
Zambia	1994	..	1994	1990	1990	1994	1993	..
Zimbabwe	1987	..	1994	1992	1992	1994	1994	..

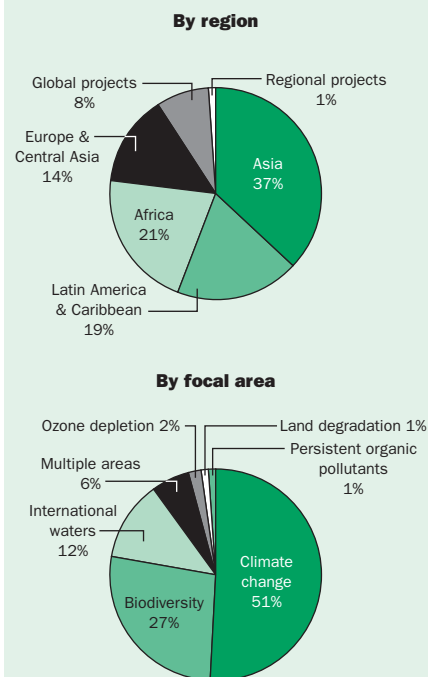
a. Ratification of the treaty. b. The years shown refer to the year the treaty entered into force in that country. c. Convention became effective November 16, 1994. d. Acceptance. e. Approval. f. Accession. g. Succession.

3.14c

Global focus on biodiversity and climate change

Allocation of funds for Global Environment Facility programs, 1991–2005

Total allocation: \$23,108 million



Source: Global Environment Facility data.

About the data

National environmental strategies and participation in international treaties on environmental issues provide some evidence of government commitment to sound environmental management. But the signing of these treaties does not always imply ratification, nor does it guarantee that governments will comply with treaty obligations.

In many countries efforts to halt environmental degradation have failed, primarily because governments have neglected to make this issue a priority, a reflection of competing claims on scarce resources. To address this problem, many countries are preparing national environmental strategies—some focusing narrowly on environmental issues, and others integrating environmental, economic, and social concerns. Among such initiatives are conservation strategies and environmental action plans. Some countries have also prepared country environmental profiles and biodiversity strategies and profiles.

National conservation strategies—promoted by the World Conservation Union (IUCN)—provide a comprehensive, cross-sectoral analysis of conservation and resource management issues to help integrate environmental concerns with the development process. Such strategies discuss current and future needs, institutional capabilities, prevailing technical conditions, and the status of natural resources in a country.

National environmental action plans, supported by the World Bank and other development agencies, describe a country's main environmental concerns, identify the principal causes of environmental problems, and formulate policies and actions to deal with them (box 3.14a). These plans are a continuing process in which governments develop comprehensive environmental policies, recommend specific actions, and outline the investment strategies, legislation, and institutional arrangements required to implement them.

Biodiversity profiles—prepared by the World Conservation Monitoring Centre and the IUCN—provide basic background on species diversity, protected areas, major ecosystems and habitat types, and legislative and administrative support. In an effort to establish a scientific baseline for measuring progress in biodiversity conservation, the United Nations Environment Programme (UNEP) coordinates global biodiversity assessments.

To address global issues, many governments have also signed international treaties and agreements launched in the wake of the 1972 United Nations Conference on Human Environment in Stockholm

and the 1992 United Nations Conference on Environment and Development (the Earth Summit) in Rio de Janeiro, which produced Agenda 21—an array of actions to address environmental challenges:

- The Framework Convention on Climate Change aims to stabilize atmospheric concentrations of greenhouse gases at levels that will prevent human activities from interfering dangerously with the global climate.
- The Vienna Convention for the Protection of the Ozone Layer aims to protect human health and the environment by promoting research on the effects of changes in the ozone layer and on alternative substances (such as substitutes for chlorofluorocarbons) and technologies, monitoring the ozone layer, and taking measures to control the activities that produce adverse effects.
- The Montreal Protocol for Chlorofluorocarbon Control requires that countries help protect the earth from excessive ultraviolet radiation by cutting chlorofluorocarbon consumption by 20 percent over their 1986 level by 1994 and by 50 percent over their 1986 level by 1999, with allowances for increases in consumption by developing countries.
- The United Nations Convention on the Law of the Sea, which became effective in November 1994, establishes a comprehensive legal regime for seas and oceans, establishes rules for environmental standards and enforcement provisions, and develops international rules and national legislation to prevent and control marine pollution.
- The Convention on Biological Diversity promotes conservation of biodiversity through scientific and technological cooperation among countries, access to financial and genetic resources, and transfer of ecologically sound technologies.

But 10 years after Rio the World Summit on Sustainable Development in Johannesburg recognized that many of the proposed actions have yet to materialize. To help developing countries comply with their obligations under these agreements, the Global Environment Facility (GEF) was created to focus on global improvement in biodiversity, climate change, international waters, and ozone layer depletion. The UNEP, United Nations Development Programme (UNDP), and the World Bank manage the GEF according to the policies of its governing body of country representatives. The World Bank is responsible for the GEF Trust Fund and is chair of the GEF.

Definitions

• Environmental strategies and action plans provide a comprehensive, cross-sectoral analysis of conservation and resource management issues to help integrate environmental concerns with the development process. They include national conservation strategies, national environmental action plans, national environmental management strategies, and national sustainable development strategies. The year shown for a country refers to the year in which a strategy or action plan was adopted. • Biodiversity assessments, strategies, and action plans include biodiversity profiles (see About the data). • Participation in treaties covers five international treaties (see About the data). • Climate change refers to the Framework Convention on Climate Change (signed in New York in 1992). • Ozone layer refers to the Vienna Convention for the Protection of the Ozone Layer (signed in 1985). • CFC control refers to the Montreal Protocol for Chlorofluorocarbon Control (formally, the Protocol on Substances That Deplete the Ozone Layer, signed in 1987). • Law of the Sea refers to the United Nations Convention on the Law of the Sea (signed in Montego Bay, Jamaica, in 1982). • Biological diversity refers to the Convention on Biological Diversity (signed at the Earth Summit in Rio de Janeiro in 1992). The year shown for a country refers to the year in which a treaty entered into force in that country. • Kyoto Protocol refers to the protocol on climate change adopted at the third conference of the parties to the United Nations Framework Convention on Climate Change, held in Kyoto, Japan, in December 1997 (for more details see box 3.14a).

Data sources

The data are from the Secretariat of the United Nations Framework Convention on Climate Change, the Ozone Secretariat of the UNEP, the World Resources Institute, the UNEP, the U.S. National Aeronautics and Space Administration's Socioeconomic Data and Applications Center, and Center for International Earth Science Information Network.