

Glossary of Climate Change Policy

Climate change is not a new issue for the international community. In the early 1980s, scientific evidence began to position climate change as a critical global issue. As a result, governments established several international institutions, treaties, and policies to start addressing the problem. Some of the most important concepts, meetings, and agreements are explained below.



Intergovernmental Panel on Climate Change (IPCC)

Recognizing that climate change is a complex and challenging issue, the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) in 1988. The Panel's role is to assess, through a comprehensive, objective, open and transparent process, the best available scientific, technical, and socio-economic information on climate change from around the world. Its assessment is based on information contained in peer-reviewed literature, industry literature and traditional practices.

The main activity of the IPCC is to provide at regular intervals an assessment of what is known about on climate change. The First Assessment Report of the IPCC, completed in 1990, played an important role in the UN General Assembly establishing a negotiating committee for a United Nations Framework on Climate Change (UNFCCC). The IPCC confirmed in its Third Assessment Report (2001) that there was new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities. The Fourth Assessment Report is to be completed in 2007.

United Nations Framework Convention on Climate Change (UNFCCC)

The IPCC's (International Panel on Climate Change) first report in 1990 confirmed the basic scientific evidence of climate change and recommended that countries should negotiate an international treaty to start combating the problem. In 1992, the UN member states met at the Rio Earth Summit and agreed on the United Nations Framework Convention on Climate Change (UNFCCC).

The Convention sets the ultimate objective of stabilizing greenhouse gas emissions "at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system". The Convention requires precise and regularly updated inventories of greenhouse gas emissions from industrialized countries. With a few exceptions, the "base year" for tabulating greenhouse gas emissions has been set as 1990.

Developing countries also are encouraged to establish inventories.

Countries ratifying the treaty - called "Parties to the Convention" in diplomatic jargon - agree to take climate change into account in such matters as agriculture, industry, energy, natural resources, and activities involving seacoasts. They agree to develop national programs to slow climate change. The convention has also established an Annual Conference of Parties (COP) to oversee its implementation in the member countries.

The Convention recognizes that it is a "framework" document - something to be amended or augmented over time so that efforts to deal with global warming and climate change can be focused and made more effective. The first addition to the treaty, the Kyoto Protocol, was adopted in 1997.

The Kyoto Protocol

The 1997 Kyoto Protocol was the first substantive agreement to mitigate global warming under the United Nations Framework Convention on Climate Change (UNFCCC). It took one year for the member countries to decide that the Convention had to be augmented by an agreement with stricter demands for reducing greenhouse-gas emissions. The Convention took effect in 1994, and by 1995 governments had begun negotiations on a protocol - an international agreement linked to the existing treaty, but standing on its own. The Kyoto Protocol entered into force on February 16, 2005, but was somewhat diminished in impact by the non-ratification of key parties, including the United States and Australia.

The Protocol's major feature is that it defines mandatory targets on greenhouse-gas (GHG) emissions for the world's leading economies that have accepted it. They are listed in "Annex 1" of the Protocol: 38 developed countries that agreed to reduce their emissions of six greenhouse gases by a total of 5.2 percent between 2008-2012. The six gases include carbon dioxide (CO₂), methane, nitrous oxide, and three fluorocarbons. Other countries agreed to adopt positive measures, but without any binding targets.

The Kyoto Protocol offers flexibility in how countries may meet their binding targets. For example, they may partially compensate for their emissions by supporting foreign projects that result in greenhouse-gas cuts. Several mechanisms have been set up for this purpose. (See "International Emissions Trading," "Clean Development Mechanism," and "Joint Implementation").

International Emissions Trading (IET)

The Kyoto Protocol sets limits on total emissions by the world's major economies, establishing a prescribed number of "emission units". Individual industrialized countries will have mandatory emissions targets they must meet.

Under the IET system, industrialized countries can trade part of their emissions budget known as Assigned Amount Units (AAUs). That allows countries that have emissions units to spare - emissions permitted to them but not "used" - to sell this excess capacity to countries that have exceeded their targets. In

principle, this trading scheme applies to nation states, although the participation of companies is not explicitly excluded. This concept is known as the "carbon market".

Smaller "carbon markets" have been established, for example, by the European Union and other groups of countries. These emissions-trading systems are intended to start the process and to link up with the Protocol's global market.

EU Emissions Trading Scheme (EU ETS)

The EU ETS is a so-called "cap-and-trade" scheme regulating industrial CO₂ emissions in the EU 25. The scheme started in January 2005. The first phase runs from 2005-2007, the second one from 2008-2012, coinciding with the with the first Kyoto Protocol commitment period.

About half of EU CO₂ emissions are covered by the scheme. It is targeted at large individual energy-using installations in defined economic sectors: mainly energy production, metals, construction materials, and paper. As a market-based mechanism, the ETS ensures that emissions are reduced in the most cost-efficient way possible, the cap giving effective control over total emission amounts.

Each EU country has to develop a National Allocation Plan (NAP) outlining the total number of emission allowances (EUAs) allocated (free of charge) to the individual installations covered by the scheme. According to the European Commission, the allowances should be in line with the member states' Kyoto commitments.

At the end of each year, each site must surrender sufficient allowances to cover their CO₂ emissions for that year. Failure to do so will result in fines - 40 euros per ton of CO₂ in the first period, and 100 euros in 2008-2012. In addition, the deficit must be compensated for in the following year.

Companies can meet their targets by implementing measures to reduce CO₂ emissions or by buying surplus allowances from other firms, i.e. trading. The 2004 "Linking Directive" allows emissions credits from Kyoto Protocol Joint Implementation (JI)/Clean Development Mechanisms (CDM) projects to be used within the EU ETS.

Joint Implementation (JI)

Joint Implementation (JI) is a project-based mechanism that allows industrialized countries to meet part of their required cuts in greenhouse gas (GHG) emissions by investing in an emission reduction project in another industrialized country. The sponsoring country receives credits for achieved emissions reductions - so-called Emissions Reduction Units (ERUs) - that may be applied to their emissions target. The recipient country will gain foreign investment and advanced technology.

Clean Development Mechanism (CDM)

The operation of the Clean Development Mechanism (CDM) is similar to Joint Implementation (JI). Under the CDM, an industrialized country invests in a project in a developing country

and obtains credits for emissions reductions called Certified Emissions Reduction Units (CERs). Countries earning the credits may apply them to meeting their emissions limits, may "bank" them for later use, or may sell them to other industrialized countries under the Protocol's emissions trading system.

publishing date: Mar-03-2006