

Climate Change Policy: Understanding the Governing Bodies and Agreements

As experts consider the impact of climate change on the earth's physical and chemical structure, they are also examining the global economic implications.

Changes in ocean temperatures and rising sea levels would affect water resources and coastal agriculture. Agricultural yields, in general, may increase slightly with mean temperature increases of 1° - 3°, but would generally decline with further temperature increases. As extreme weather events increase in number and frequency, existing infrastructures will become more vulnerable to the elements, requiring more frequent maintenance. As a result, insurance costs will increase making coverage unaffordable to some and passing on increased costs to all. New health risks are also a factor associated with climate change. Due to flooding and rising temperatures, geographic areas which have not been exposed to certain diseases, or have had limited exposure, will be at increased risk for outbreaks.

While all countries and regions will experience the varying effects of climate change they do not all bear equal responsibility for contributing to the current risks. Historically, poor countries have emitted the lowest levels of CO₂ and other greenhouse gases, while industrialized nations have contributed the highest levels of emissions. However, due to fewer financial and technological resources to mitigate the impacts of climate change, poor countries will suffer the most. Today, industrialized and newly industrialized nations including China, the United States, Russia, India, Japan, Germany, Canada, the United Kingdom, South Korea, and Iran, lead the list of countries with highest total emissions.

What is a Greenhouse Gas Cap-and-Trade Program (and How Does it Work)?

A greenhouse gas (GHG) cap-and-trade program is an emissions trading program designed to reduce emission levels of GHG. State or federal governments establish a cap, or maximum limit, of allowable emissions and distribute or sell permits in the amount of the cap. The cap declines each year. Regulated firms must hold enough permits to cover their emissions, and they can buy and sell emissions allowances within the system. Firms with excess allowances can sell them to companies that have higher abatement costs. A GHG cap-and-trade program relies on both regulation and market forces: a governing authority establishes limit on total emissions, and the trading system creates incentives for companies to reduce emission levels, develop clean technologies, and profit from sales of surplus credits. Currently, the largest GHG cap-and-trade program is the European Union Emission Trading Scheme, established in 2005.

Amidst discussions of identifying effective methods to mitigate the effects of climate change in the United States, the U.S. House of Representatives passed the American Clean Energy and Security Act of 2009 (ACES), also known as the Waxman-Markey Bill, on June 26, 2009. ACES includes a cap-and-trade program, which calls for the establishment of a federal GHG registry; specified emission allowances each year from 2012; reduction of GHG emissions in the U.S. from capped sources to 17 percent of 2005 levels by 2050; and the provision of 20 percent of electricity from renewable energy by 2020.

The U.S. Senate Environment and Public Works Committee also passed a 2009 climate bill, S. 1733. "The Clean Energy Jobs and American Power Act" calls for a reduction in CO₂ emissions to 20 percent below 2005

levels by 2020. The bill is in many respects similar to ACES, but it seeks a slightly more ambitious mid-term target for 2020 (20 percent reduction from 2005 levels vs. a 17 percent reduction in ACES).

What are the UNFCCC and COP15?

The United Nations Framework Convention on Climate Change (UNFCCC) is an international environmental treaty that was negotiated at the June 1992 United Nations Conference on Environment and Development (commonly known as the “Earth Summit”) in Rio de Janeiro. The treaty, which is aimed at stabilizing GHG concentrations in the atmosphere to avoid harmful effects on the climate, has been ratified by 192 countries including the United States, since taking effect in 1994.

Ratifying members of the UNFCCC are separated into three categories:

- Annex I countries, which are comprised of industrialized nations;
- Annex II countries, which include developed countries that help pay for the adaptation costs; costs of transforming technologies which emit carbon; and direct costs of carbon for developing countries;
- Developing countries.

Governments of the 192 ratified countries agree to gather and disseminate knowledge of GHG emissions, national policies and best practices; initiate national policies and strategies to curb emissions and adapt to likely impacts, including financial and technological support of developing countries; and cooperate with other governments in adapting to the impacts of climate change.

The treaty, which allows for the addition of later protocols or agreements, established a Conference of the Parties (COP) for the Convention, which meets annually to assess progress. The 15th COP will take place in Copenhagen in December 2009 with the intention of implementing a binding, international climate change agreement to begin when the Kyoto Protocol expires in 2012. There will be discussion on mechanisms for technology transfer, financial support for developing countries and binding emissions targets—in an attempt to fulfill short-term commitments in tandem with long-term agreements.

What are the Kyoto Protocol, Marrakesh Accords and the Bali Action Plan?

The Kyoto Protocol is an international agreement tied to the UNFCCC that was agreed upon in Kyoto, Japan, in 1997. While the UNFCCC encouraged countries to reduce GHG emission levels, the Kyoto protocol mandated parties to reduce emissions levels on average of 5.2 percent of 1990 levels between 2008 and 2012. Thirty-five industrial countries, as well as the European Union, ratified the protocol and accepted these binding targets. The U.S. did not ratify the protocol.

In 2001, the Marrakesh Accords established a structure in which countries could work to meet the targets of the Kyoto Protocol. As part of this structure, it set up a GHG emissions trading system which will take effect in 2012. The Accords also created the Clean Development Mechanisms and Joint Implementation. These mechanisms enable industrialized countries to finance emissions reduction or removal programs within developing countries and receive credits toward their own reduction goals.

The Bali Action Plan was agreed upon at the COP13 meeting in 2007. Parties agreed that the speed of implementing climate change strategies needed to be increased dramatically, including the employing of measures outlined in the UNFCCC and Kyoto Protocol. The Plan aims to negotiate a binding, global, long-term agreement at the COP15 meeting in December 2009 in Copenhagen.

What is the IPCC?

The Intergovernmental Panel on Climate Change (IPCC) was established in 1998 by the World Meteorological Association and the United Nations Environment Programme (UNEP). The IPCC aims to identify gaps in climate change knowledge and its implications for the planet; determine what information is needed to develop and evaluate effective climate change policy and response strategies; and share findings from scientific and environmental assessments on climate change to enable governments and inter-governmental organizations to develop climate policy through objective analysis.

The United Nations General Assembly, recognizing the need for ongoing, broad-based, objective evaluation of climate change data, requested that the IPCC conduct an assessment on the current state of scientific knowledge, programs and studies on climate change. The assessment also examined the response strategies and existing international legal mechanisms upon which the international community could build in order to establish an international convention on climate. Upon receiving the IPCC's first assessment, the General Assembly began laying the foundations for an international convention in time for the 1992 Earth Summit. The COP also continues to rely on the IPCC to provide comprehensive analyses of current climate change research as it formulates and negotiates climate policy. Since 1992, the IPCC has produced four assessment reports, with the fifth report due out in 2014.