

The nations around the world voluntarily united to sign the United Nations Framework Convention on Climate Change (UNFCCC) realising the threat to earth due to increasing concentration of green house gases. Held in Rio de Janeiro from 3 to 14 June 1992, the treaty aimed at stabilizing greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. It included a legally non binding, voluntary pledge that the major industrialized nations would reduce their GHG emissions by year 2000, but realising that the voluntary targets were not met unless a legally binding agreement was made a necessity.

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC) strengthens the international response to climate change.

The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997. It is an international agreement linked to the United Nations Framework Convention on Climate Change and exemplifies binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions. The protocol came into force on 16th Feb 2005 with targets to reduce the GHG emissions to about 5% from the 1990 level (taken as the baseline year). The protocol defines 6 green house gases as CO₂, CH₄, HFC, PFC, S₆, and No₂.

Kyoto protocol provides three market based flexible mechanisms through which Annex I countries can achieve their emission reductions targets:

International Emissions Trading (IET) - An allowance-based system that permits to sell surplus emission of one developed country to another developed country.

Joint Implementation (JI) - It allows countries to claim credit for emission reduction that arise from investment in other industrialized countries, which result in a transfer of 'emission reduction units' between countries.

Clean Development Mechanism (CDM) -The Clean Development Mechanism (CDM), a mechanism under the Kyoto Protocol, attains the twin aspiration of promoting sustainable development in non-Annex I countries while

facilitating compliance with the greenhouse gas mitigation commitments in Annex I countries. Clean Development Mechanism allows emission reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of Carbon Dioxide. CERs can be traded or sold to industrialized countries in order to meet part of their targets under the Kyoto Protocol. CDM assists developing countries in achieving financial help, technology and sustainable development through the Clean Development Mechanism (CDM), non Annex 1 countries help Annex 1 countries meet their commitments under the Kyoto Protocol through greenhouse gas mitigation projects that contribute to sustainable development.

In CDM, adoption of mitigation measures is escalated by establishing a "carbon price" for every tonne of reduced greenhouse gas emission. The carbon price aspect associated with the clean development mechanism aims to encourage the producers and consumers to invest in products, technologies and processes which emit less greenhouse gases.



The Clean Development Mechanism supervised by the CDM Executive Board qualify projects through a rigorous process designed to ensure real, measurable and verifiable emission reductions that are additional to what would have occurred in the absence of project activity.

By arresting and reversing the upward trend in greenhouse gas emissions that started in these countries 150 years ago, the Protocol promises to move the international community one step closer to achieving the Convention's ultimate objective of preventing "dangerous anthropogenic (human-made) interference with the climate system".