

Kyoto Protocol

[UPSC Notes]

What is Kyoto Protocol?

The Kyoto Protocol is an international agreement that brings into operation the United Nations Framework Convention on Climate Change (UNFCCC). It is the first set of international rules designed to implement the UNFCCC. UNFCCC is a multilateral environmental treaty that came into force on 21 March 1994, at the Earth Summit, New York City in the year 1992, to combat climate change. Its role is to fight global warming by reducing greenhouse gas concentrations in the atmosphere to a level that would prevent dangerous anthropogenic interference with the climate system.

The Kyoto Protocol is based on the principles and provisions of the Convention and follows its annex-based structure. It only binds developed countries, and places a heavier burden on them under the principle of 'common but differentiated responsibility and respective capabilities', because it recognizes that they are largely responsible for the current high levels of GHG emissions in the atmosphere.

The Kyoto Protocol implemented the objective of the UNFCCC to fight global warming by reducing greenhouse gas concentrations. As of today, there are 192 parties to the Kyoto Protocol.

Origin and History of Kyoto Protocol

In 1997, the third meeting of the UNFCCC nation (United Nations Framework Convention on Climate Change) took place, in Japan, where the Kyoto Protocol was created. The Kyoto Protocol was adopted on 11 December 1997. It entered into force on 16 February 2005 following ratification by Russia. Kyoto is the name of the Japanese city in which the protocol was negotiated, but it is now commonly used in climate change discussions to refer to the protocol itself.

Principles of the Kyoto Protocol

The Kyoto Protocol is based on the principle of 'Common But Differentiated Responsibilities (CBDR)'. It puts the obligation to reduce current emissions on developed countries on the basis that they are historically responsible for the current levels of greenhouse gases in the atmosphere.

According to the CBDR, the Kyoto Protocol divides the responsibilities of different countries into two ways:

1. Historical Polluters (Developed countries)

Historically, the biggest polluting developed countries are polluting the earth since the Industrial Revolution. These countries include- the US, UK, France, Japan, Russia, etc. Under the CBDR, developed countries like the US, UK, Russia, etc. must contribute more towards the implementation of ways to reduce GHGs. They must do so by:

- Accepting the certain binding limits on GHG emissions.
- Contributing funds towards reducing GHG emissions in the developing and the least developed countries.

2. Recent Polluters (Developing countries)

Recently polluting developing countries are countries that have been polluting since the 1950s. These include countries like China, India, Brazil, etc. Such countries should do everything possible to cut down their GHG emissions. But these countries are not bound, and every initiative taken by these countries is voluntary.

Responsibilities and Targets of the Kyoto Protocol

The Kyoto Protocol is designed to assist countries in adapting to the adverse effects of climate change. It facilitates the development and implementation of techniques that can help increase resilience to the impacts of climate change. One of the major features of the Kyoto Protocol is that it sets obligatory targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions.

The protocol does not set reduction targets for developing countries on the principle that the developed countries that have created the problem should take the first steps to clean it up. However, rapidly developing economies such as those of China and India will have a huge impact on GHG emissions in the future. The lack of developing country commitments is one of the reasons why the United States refused to ratify Kyoto.

The agreement and its widespread acceptance (184 countries have ratified it) provide important international momentum for action on climate change. The targeted gases under this protocol are as follows:

- Carbon Dioxide (CO₂)
- Methane (CH₄)
- Nitrous Oxide (N₂O)
- Sulphur Hexafluoride (SF₆)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)

Parties Under the Kyoto Protocol

The parties under the Kyoto Protocol are divided in the following manner:

Annexe I:

- Developed countries [US, UK, Russia etc.]
- Economies in transition (EIT) [Ukraine, Turkey, some eastern European countries etc.]

Annexe II:

- Developed countries (Annex II is a subset of Annex I).
- Required to provide financial and technical support to the EITs and developing countries to assist them in reducing their greenhouse gas emissions.

Annexe B:

- Annexe I Parties with first or second-round Kyoto greenhouse gas emissions targets.
- The first-round targets apply over the years 2008–2012 and the second-round Kyoto targets, apply from 2013 to 2020.
- Compulsory binding targets reduce GHG emissions.

Non-Annex I:

- Parties to the UNFCCC are not listed in Annex I of the Convention (mostly low-income developing countries).
- No binding targets to reduce GHG emissions.

LDCs

- Least-developed countries
- No binding targets to reduce GHG emissions.

The Kyoto Mechanisms

The Kyoto mechanisms improve the possibility of skipping the use of older, dirtier technology for newer, cleaner infrastructure and systems, with obvious longer-term benefits that are more economical. Countries bound to Kyoto targets have to meet them largely through domestic action, i.e., by reducing their emissions onshore. But they can meet part of their targets through three 'market-based mechanisms', called the Kyoto mechanisms.

The Kyoto Flexible Market Protocol mechanisms include:

Clean Development Mechanism (CDM)

Developed countries emit more and lose carbon credits. They provide financial assistance to developing and least developed countries to create clean energy (solar, wind energy, etc.) and

gain some carbon credits thereby meeting their Kyoto Quota (Kyoto units) of emissions without violations.

Emission Trading

Emissions trading allows countries to sell unused emission units to countries that have exceeded their targets. Carbon is tracked and traded like any other commodity in a “carbon market.”

Joint Implementation (JI)

This mechanism allows a country with an emission reduction commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction project in another Annex B Party, each equivalent to one tonne of CO₂, which can be counted towards meeting its Kyoto target. The joint implementation offers Parties a flexible and cost-efficient means of fulfilling a part of their Kyoto commitments, while the host Party benefits from foreign investment and technology transfer.

Doha Amendment

In Doha, Qatar, on 8 December 2012, the Doha Amendment to the Kyoto Protocol was adopted for a second commitment period, starting in 2013 and lasting until 2020. As of 28 October 2020, 147 Parties deposited their instrument of acceptance, therefore the threshold of 144 instruments of acceptance for entry into force of the Doha Amendment was achieved. The amendment entered into force on 31 December 2020.

During the first commitment period, 37 industrialized countries and economies were in transition, and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reducing GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first.