

# **1. United Nations Framework Convention on Climate Change (UNFCCC)**

## **1.1. What is the UNFCCC?**

- The UN Framework Convention on Climate Change (UNFCCC) sets out the basic legal framework and principles for international climate change cooperation.
- It aims to stabilise greenhouse gas (GHG) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.
- Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.
- It is the parent treaty of the 2015 Paris Agreement.

## **1.2. Adoption and Secretariat**

- It was signed by 154 states at the United Nations Conference on Environment and Development (UNCED), informally known as the Earth Summit, held in Rio de Janeiro from 3 to 14 June 1992. It entered into force on 21 March 1994.
- Its original secretariat was in Geneva but relocated to Bonn (Germany) in 1996.

## **1.3. Decision-making Body**

- The Conference of the Parties (COP) is the “supreme body” of the Convention, that is, its highest decision-making authority.
- It is an association of all the countries that are Parties to the Convention. The COP meets every year, unless the Parties decide otherwise.
- By 2022, the UNFCCC had 198 parties.

## **1.4. Three Groups of UNFCCC**

### **Annex I Parties**

- Include the industrialised countries that were members of the OECD (Organisation for Economic Co-operation and Development) in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and several Central and Eastern European States.

### **Annex II Parties**

- Consist of the OECD members of Annex I, but not the EIT Parties.

- They are required to provide financial resources to enable developing countries to undertake emissions reduction activities under the Convention and to help them adapt to adverse effects of climate change.
- In addition, they have to "take all practicable steps" to promote the development and transfer of environmentally friendly technologies to EIT Parties and developing countries.
- Funding provided by Annex II Parties is channelled mostly through the Convention's financial mechanism.

#### **Non-Annex I Parties**

- They are mostly developing countries. Certain groups of developing countries are recognized by the Convention as being especially vulnerable to the adverse impacts of climate change, including countries with low-lying coastal areas and those prone to desertification and drought.

#### **1.5. Concept of UNFCCC**

- The UNFCCC endorses the concept of "common but differentiated responsibility" in the climate context. This means that while developing country parties are expected to contribute to climate mitigation, developed countries are expected to take the lead in combating climate change and the adverse effects thereof.

#### **1.6. Data gathering and reporting**

- The UNFCCC instituted a process for countries to generate and share data about domestic GHG emissions.
- Under the UNFCCC, all parties are required to submit national GHG inventories, and developed country parties are required to submit more detailed descriptions of mitigation policies and projections of the projected impact of these policies on GHG emissions.

#### **Important COPs**

<b>COP</b>	<b>Year</b>	<b>Place</b>	<b>Importance</b>
COP 3	1997	Kyoto, Japan	Adopted Kyoto Protocol
COP 7	2001	Marrakech, Morocco	Marrakech accords was signed (set stage for ratification of Kyoto Protocol)
COP 8	2002	New Delhi, India	Delhi Declaration. Technology transfer for Climate Change mitigation
COP 13	2007	Bali, Indonesia	Bali road map and Bali action plan
COP 14	2008	Poznan, Poland	Adaptation Fund under Kyoto Protocol launched

COP 15	2009	Copenhagen, Denmark	Developed countries pledged up to 30 billion USD
COP 16	2010	Cancun, Mexico	Green Climate Fund was established
COP 18	2012	Doha, Qatar	Doha Amendment to Kyoto Protocol (reducing GHG emissions by 18% compared to 1990 levels)
COP 19	2013	Warsaw, Poland	Warsaw International Mechanism for Loss and Damage
COP 21	2015	Paris, France	Paris Agreement. Yearly 100 billion USD funding pledge by rich countries
COP 24	2018	Katowice, Poland	Rulebook for Paris Agreement
COP 26	2021	Glasgow, United Kingdom	Glasgow breakthrough agenda. India announced Net Zero targets 2070.

## 2. Kyoto Protocol

### 2.1. What is the Kyoto Protocol?

- The Kyoto Protocol is the first set of international rules designed to implement the UNFCCC.
- It is an international agreement setting targets for industrialised countries to cut their greenhouse gas emissions. The targeted gases are:
  - Carbon dioxide (CO<sub>2</sub>)
  - Methane (CH<sub>4</sub>)
  - Nitrous Oxide (N<sub>2</sub>O)
  - Hydrofluorocarbons (HFCs)
  - Perfluorocarbons (PFCs)
  - Sulphur hexafluoride (SF<sub>6</sub>)

### 2.2. Adoption of Kyoto Protocol

- The Kyoto Protocol was adopted at the third session of the Conference of Parties (COP) to the UNFCCC in 1997 in Kyoto, Japan. It was based on principles set out in a framework convention signed in 1992.
- For the protocol to come fully into force, the pact needed to be ratified by countries accounting for at least 55% of 1990 carbon dioxide emissions.

- With countries like the United States and Australia unwilling to join the pact, the key to ratification came when Russia, which accounted for 17% of 1990 emissions, signed up to the agreement in November 2004.
- On 16th February 2005 the Kyoto Protocol finally became an international law. At the treaty's implementation in February 2005, the agreement had been ratified by 141 countries, including India, representing 61.6% of emissions.

### **2.3. Principle of Kyoto Protocol**

- The Kyoto Protocol operates on the principle of “common but differentiated responsibility”.
- Only the industrialised nations who have signed up to the treaty were legally bound to reduce worldwide emissions of six greenhouse gases (collectively) by an average of 5.2% below their 1990 levels by the period 2008-2012.

### **2.4. Structure of Kyoto Protocol**

#### **Annex I countries**

- They are the 41 industrialised countries which have obligations to reduce their greenhouse gas emissions under the Kyoto Protocol.
- Their combined emissions, averaged out during the 2008-2012 period, should be 5.2% below 1990 levels.

#### **Annex II countries**

- These are the countries which have a special obligation under the Kyoto Protocol to provide financial resources and transfer technology to developing countries.
- This group was a sub-section of the Annex I countries, excluding those which, in 1992, were in transition from centrally planned to a free market economy. They included any ex-Soviet bloc state.
- At the time the Kyoto Protocol was adopted in 1997, these countries were on the path from a Communist planned economy to a market economy.

#### **Developing countries**

- These countries, including India, have no obligation to reduce emissions of GreenHouse gases.

### **2.5. Mechanisms under the Kyoto Protocol**

- The Protocol offers countries an additional means to meet their targets by way of three market-based mechanisms:
  - Clean development mechanism
  - Joint implementation

- Emissions trading
- The Kyoto Protocol is a cap and trade system in the sense that emissions from Annex-B countries are capped and excess permits can be traded.
  - Annex B Countries: Developed countries that agreed to targets for greenhouse gas emissions in the first commitment period, 2008 to 2012.
- Cap and Trade is an emissions trading system, which involves the buying and selling of emission allowances, where total emissions are limited or "capped".

#### **Clean Development Mechanism (CDM)**

- CDM as defined in Article 12 of the Protocol, allows a country with an emission-reduction or emission-limitation commitment under the Kyoto Protocol (Annex B Party) to implement an emission-reduction project in developing countries.
- Such projects can earn saleable certified emission reduction (CER) credits, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting Kyoto targets.

#### **Joint implementation (JI)**

- Joint implementation, defined in Article 6 of the Kyoto Protocol, allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party) to earn emission reduction units (ERUs) from an emission-reduction or emission removal project in another Annex B Party, each equivalent to one tonne of CO<sub>2</sub>, which can be counted towards meeting its Kyoto target.

#### **Emissions Trading**

- Parties with commitments under the Kyoto Protocol (Annex B Parties) have accepted targets for limiting or reducing emissions. These targets are expressed as levels of allowed emissions, or assigned amounts, over the 2008-2012 commitment period.
- The allowed emissions are divided into assigned amount units (AAUs).
- Emissions trading, as set out in Article 17 of the Kyoto Protocol, allows countries that have emission units to spare - emissions permitted them but not "used" - to sell this excess capacity to countries that are over their targets.

## **2.6. Key Developments Related to the Kyoto Protocol**

### **COP 17 at Durban, South Africa in 2011**

- The Durban outcomes establish the process for discussions on the post 2020 arrangements for the global climate change regime. For this purpose, a Durban Platform has been launched.

- The most significant achievement of the Durban Conference was to establish a second commitment period of the Kyoto Protocol, which will begin on January 1, 2013 and end either in December 2017 or December 2020.
- The Quantified Emission Limitation and Reduction Objectives (QELROs) for developed country Kyoto Protocol Parties was to be determined during 2012.

#### **COP 18 at Doha, Qatar in 2012**

- The conference reached an agreement to extend the life of the Kyoto Protocol, which had been due to expire at the end of 2012, until 2020, and to reify the 2011 Durban Platform.
- Important points from the conference include:
  - An eight year extension of the Kyoto Protocol until 2020
  - Developing countries like China (the world's largest emitter), India and Brazil are not subject to any emissions reductions under the Kyoto Protocol.

#### **COP 20 at Lima, Peru in 2014**

- During the COP 20 at Lima, for the first time all countries agreed to cutting their greenhouse gas emissions.
- The countries agreed to announce their Intended Nationally Determined Contribution (INDC) by October 2015, before the Paris Climate Summit.

### **3. The Paris Agreement**

#### **3.1. What is the Paris Agreement?**

- The Paris Agreement is a legally binding international treaty on climate change.
- The Agreement includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change, and calls on countries to strengthen their commitments over time.
- It provides a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts.
- Its overarching goal is to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels.”

#### **3.2. Adoption of the Paris Agreement**

- It was adopted by 196 Parties at the UN Climate Change Conference (COP21) in Paris, France, on 12 December 2015. It entered into force on 4 November 2016.

- As of February 2023, 195 members (194 States plus the European Union) of the UNFCCC are parties to the Paris Agreement.

### **3.3. Main Provisions of the Paris Agreement**

#### **Long-term temperature goal**

- The Paris Agreement reaffirms the goal of limiting global temperature increase to well below 2 degrees Celsius, while pursuing efforts to limit the increase to 1.5 degrees.

#### **Mitigation**

- The Paris Agreement establishes binding commitments by all Parties to prepare, communicate and maintain a nationally determined contribution (NDC) and to pursue domestic measures to achieve them.

#### **Sinks and reservoirs**

- The Paris Agreement also encourages Parties to conserve and enhance, as appropriate, sinks and reservoirs of GHGs, including forests.

#### **Market and non-market based approaches**

- The Agreement recognizes the possibility of voluntary cooperation among Parties to allow for higher ambition and sets out principles for any cooperation that involves internationally transferal of mitigation outcomes.

#### **Loss and damage**

- It recognizes the importance of averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events, and the role of sustainable development in reducing the risk of loss and damage.

#### **Global Stocktake**

- A “global stocktake”, to take place in 2023 and every 5 years thereafter, will assess collective progress toward achieving the purpose of the Agreement in a comprehensive and facilitative manner.

### **3.4. Working of the Paris Agreement**

- The Paris Agreement works on a five- year cycle of increasingly ambitious climate action carried out by countries.
- Every five years, each country is expected to submit an updated national climate action plan - known as Nationally Determined Contribution, or NDC.
- Each successive NDC is meant to reflect an increasingly higher degree of ambition compared to the previous version.

- To better frame the efforts towards the long-term goal, the Paris Agreement invites countries to formulate and submit long-term low greenhouse gas emission development strategies (LT-LEDS).
  - LT-LEDS provide the long-term horizon to the NDCs. Unlike NDCs, they are not mandatory.

### **3.5. Framework of the Paris Agreement**

- The Paris Agreement reaffirms the obligations of developed countries to support the efforts of developing country Parties to build clean, climate-resilient futures, while for the first time encouraging voluntary contributions by other Parties.
- Parties commit to submit indicative information on future support every two years, including projected levels of public finance.
- The agreement also provides that the Financial Mechanism of the Convention, including the Green Climate Fund (GCF), shall serve the Agreement.

#### **Finance**

- The Paris Agreement reaffirms that developed countries should take the lead in providing financial assistance to countries that are less endowed and more vulnerable.

#### **Technology**

- The Paris Agreement establishes a technology framework to provide overarching guidance to the well-functioning Technology Mechanism.
- The mechanism is accelerating technology development and transfer through its policy and implementation arms.

#### **Capacity-Building**

- The Paris Agreement places great emphasis on climate-related capacity-building for developing countries and requests all developed countries to enhance support for capacity-building actions in developing countries.

### **3.6. Tracking the Progress**

- With the Paris Agreement, countries established an enhanced transparency framework (ETF).
- Under the ETF, starting in 2024, countries will report transparently on actions taken and progress in climate change mitigation, adaptation measures and support provided or received.
- The information gathered through the ETF will feed into the Global stocktake which will assess the collective progress towards the long-term climate goals.



## **4. Article 6 of the Paris Agreement**

### **4.1. Introduction**

- The 26th session of the Conference of the Parties (COP 26) to the UNFCCC was held from 31 October to 12 November 2021.
- One of the key outcomes of the COP26 was the approval of Article 6 – the Paris Agreement’s rulebook governing carbon markets.

### **4.2. What is Article 6?**

- Article 6 of the Paris Agreement allows countries to voluntarily cooperate with each other to achieve emission reduction targets set out in their NDCs.
- Under Article 6, a country (or countries) will be able to transfer carbon credits earned from the reduction of GHG emissions to help one or more countries meet climate targets.

### **4.3. Market mechanisms under Article 6**

#### **Article 6.2**

- Within Article 6, Article 6.2 creates the basis for trading in GHG emission reductions (or “mitigation outcomes”) across countries.
- Article 6.2 allows countries to trade emission reductions and removals with one another through bilateral or multilateral agreements.
- These traded credits are called Internationally Transferred Mitigation Outcomes (ITMOs). They can be measured in carbon dioxide equivalent (CO<sub>2</sub>e) or using other metrics, such as kilowatt-hours (KWh) of renewable energy.

#### **Article 6.4**

- Article 6.4 is expected to be similar to the Clean Development Mechanism of the Kyoto Protocol. It establishes a mechanism for trading GHG emission reductions between countries under the supervision of the Conference of Parties.
- It will create a global carbon market overseen by a United Nations entity, referred to as the “Article 6.4 Supervisory Body” (6.4SB).
- A project must be approved by both the country where it is implemented, and the Supervisory Body, before it can start issuing UN-recognised credits.

#### **Article 6.8**

- Article 6.8 recognizes non-market approaches to promote mitigation and adaptation. It introduces cooperation through finance, technology transfer, and capacity building, where no trading of emission reductions is involved.

## **5. UNFCCC COP 27**

- The 2022 Conference of the Parties of the UNFCCC (COP27) was held from November 6 to November 20, 2022 in Sharm El Sheikh, Egypt.

### **5.1. Major takeaways from COP-27**

#### **Loss and Damage**

- At the conference, a loss and damage fund was agreed for the first time, which was considered a significant achievement.
- The loss and damage fund is an agreement to provide funding to countries who are most vulnerable and affected by climate change.

#### **1.5°C Limit**

- At COP27, countries reaffirmed their commitment to limit global temperature rise to 1.5°C above pre-industrial levels.
- A mitigation work programme was established in Sharm el-Sheikh, aimed at urgently scaling up mitigation ambition and implementation. The work programme will continue until 2026 when there will be a review to consider its extension.

#### **Financial Support**

- The COP27 cover decision, known as the Sharm el-Sheikh Implementation Plan, highlights that a global transformation to a low-carbon economy is expected to require investments of at least USD 4-6 trillion a year.
- At COP27, deliberations continued on setting a 'new collective quantified goal on climate finance' in 2024, taking into account the needs and priorities of developing countries.

### **5.2. UNFCCC COP 27 and India**

- India has submitted its updated NDCs on 26th August 2022 and its long-term low carbon development strategy on 14th November 2022.
- These documents lay out India's vision and approaches towards reaching net-zero by 2070, which are expected to evolve as necessary over time.
- As per LT-LEDS, India's vision of low carbon development is based on the need to ensure India's high energy needs for development, including poverty eradication, achieving Sustainable Development Goals and economic growth.