UNFCCC – A framework convention → To reduce GHGs

Kyoto protocol
The Kyoto Protocol was adopted on 11 December 1997, entered into force on 16 February 2005.

Target

- During the first commitment period, 37 industrialized countries and economies 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 reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020
One important element of the Kyoto Protocol was the establishment of flexible market mechanisms, which are based on the trade of emissions permits.
Doha Amendment- 2012 – II phase of Kyoto

In meantime,

1. CoP 15 – **Copenhagen** – Copenhagen Accord → GCF fund 2009
   Developing countries also voluntarily agreed on GHGs reductions
2. **CoP 16 – Cancun , 2010**
   GCF launched @ Incheon, S. Korea

GCF – to assist developing countries in Mitigation and adaptation to counter climate change
Mainly – Climate Finance
Governed by GCF Board & World bank was chosen as temporary trustee
Goal of raising 100$bn per year by 2020

Three market-based mechanisms:

- International Emissions Trading
- Clean Development Mechanism (CDM)
- Joint implementation (JI)

Annex System –

Annex I	• List of industrialized countries and economies in transition • pledged to reduce their greenhouse gas emissions to 1990 levels by the year 2000.
Annex II	• A sub-group of Annex 1 Countries, • these Annex II countries are required to give **financial assistance and technology** to the developing countries (non-Annex countries).
Non Annex	• Developing countries like India, Brazil, China. • Non-binding for them
Annex A	list of 6 Green House gases 1. Carbon dioxide (CO_2); 2. Methane (CH_4); 3. Nitrous oxide (N_2O); 4. Hydrofluorocarbons (HFCs); 5. Perfluorocarbons (PFCs); and 6. Sulphur hexafluoride (SF_6)
Annex B	• This gives the Annex I countries (Developed countries) • **compulsory binding targets** to reduce greenhouse gas emission.

Emissions Trading

- Greenhouse gas emissions a new commodity
- 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
- Since carbon dioxide is the principal greenhouse gas, people speak simply of trading in carbon. Carbon is now tracked and traded like any other commodity. This is known as the "carbon market."
- Other trading units in the **carbon market**
- More than actual emissions units can be traded and sold under the Kyoto Protocols emissions trading scheme.

Joint implementation

- **(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_2, which can be counted towards meeting its Kyoto target.

- 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

Annex B -----------→ Annex B

The Clean Development Mechanism

- 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_2, which can be counted towards meeting Kyoto targets
- It is the **first global, environmental investment and credit scheme** of its kind, providing a standardized emissions offset instrument, CERs.
- Example, a **rural electrification project using solar panels** or the installation of more energy-efficient boilers.

Annex B -----------→ Non Annex countries

Adaptation fund - 2001

To assist countries in adapting to the adverse effects of climate change. It facilitates the **development and deployment of technologies** that can help increase resilience to the impacts of climate change.
The Adaptation Fund was established to **finance adaptation projects and programmes in developing countries** that are Parties to the Kyoto Protocol.
In the first commitment period, the Fund was financed mainly with a share of proceeds from CDM project activities.
In Doha, in 2012, it was decided that for the second commitment period, international emissions trading and joint implementation would also provide the Adaptation Fund with a 2 percent share of proceeds.

GCF fund

The **Green Climate Fund** (**GCF**) is a fund established within the framework of the UNFCCC
as an operating entity of the **Financial Mechanism to assist developing countries** in adaptation and mitigation practices to counter climate change.

HQ: The GCF is based in Incheon, S.Korea
It is governed by a Board of 24 members

The Copenhagen Accord, 2009 - "Copenhagen Green Climate Fund". Formally established during Cancun summit as a fund within the UNFCCC framework.

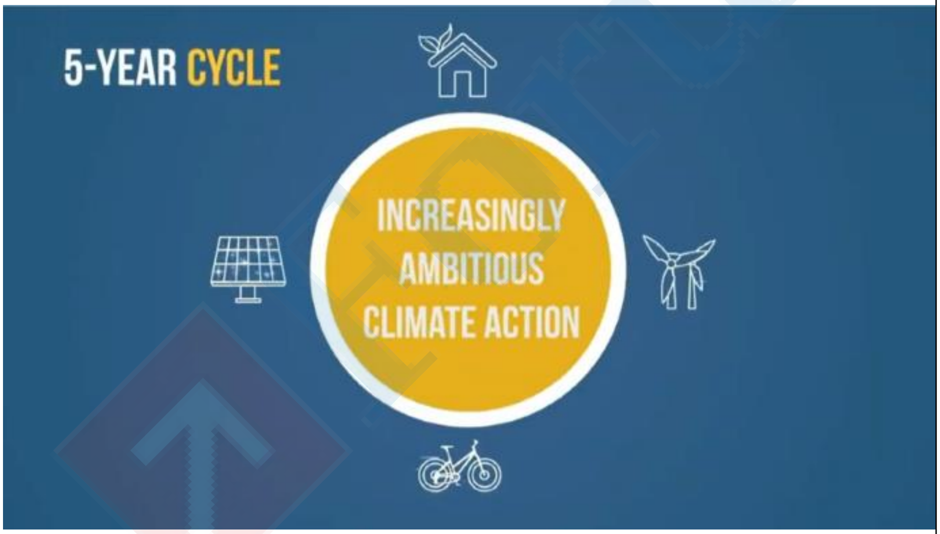
Paris Deal

The Paris Agreement is a **legally binding international treaty on climate change.**
Adopted – 2015 @CoP 21
Enforced – 2016

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."**

To limit global warming to 1.5°C, greenhouse gas emissions must peak before 2025 at the latest and decline 43% by 2030. The Paris Agreement is a landmark in the multilateral climate change process because, for the first time**, a binding agreement brings all nations together to combat climate change** and adapt to its effects.

How does the Paris Agreement work?



- **Implementation** of the Paris Agreement **requires economic and social transformation,** based on the best available science.
- The Paris Agreement **works on a five-year cycle** of increasingly ambitious climate action -- or, ratcheting up -- carried out by countries.
- Since 2020, countries have been submitting their national climate action plans, **known as nationally determined contributions (NDCs)**. Each successive NDC is meant to reflect an **increasingly higher degree of ambition** compared to the

previous version.
Recognizing that accelerated action is required to limit global warming to 1.5°C, the COP27 cover decision requests Parties **to revisit and strengthen the 2030 targets in their NDCs** to align with the Paris Agreement temperature goal by the end of 2023, taking into account different national circumstances.

Nationally Determined Contributions (NDCs)

- In their NDCs, **countries communicate actions they will take to reduce their greenhouse gas emissions in order to reach the goals of the Paris Agreement**.
- Countries also communicate in their NDCs actions they will take to build resilience to adapt to the impacts of climate change.
- **Long-Term Strategies**
- 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**. Nevertheless, they place the NDCs into the context of countries' **long-term planning and development priorities**, providing a vision and direction for future development.
- How are countries supporting one another?

The Paris Agreement provides a framework for **financial, technical and capacity building** support to those countries who need it.

1. 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, while for the first time also encouraging voluntary contributions by other Parties.

Climate finance is needed for mitigation, because **large-scale investments are required to significantly reduce emissions.** Climate finance is equally important for adaptation, as significant financial resources are needed **to adapt to the adverse effects and reduce** the impacts of a changing climate.

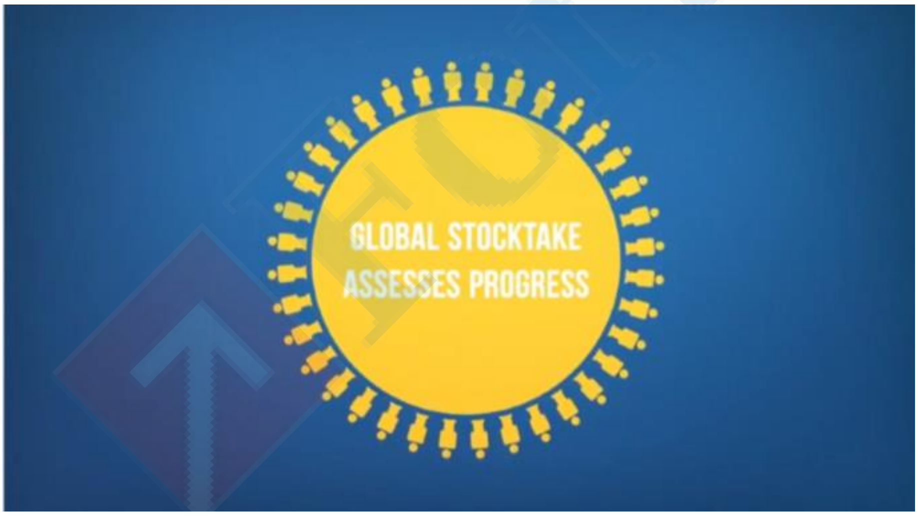
2. Technology

- The Paris Agreement speaks of the vision of **fully realizing technology development and transfer** for both improving resilience to climate change and reducing GHG emissions.
- It 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.

3. Capacity-Building

- Not all developing countries have sufficient capacities to deal with many of the challenges brought by climate change. As a result, 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.

How are we tracking progress?



With the Paris Agreement, countries established an **Enhanced transparency framework (ETF).**

- Under ETF, starting in 2024, countries **will report transparently on actions taken and progress** in climate change mitigation, adaptation measures and support provided or received.

- It also provides for international **procedures for the review** of the submitted reports.
- The **information gathered through the ETF will feed into the Global stocktake** which will **assess the collective progress** towards the long-term climate goals.
- This will lead to recommendations for countries to set more ambitious plans in the next round.

INDCs of India

Targets for 2030

1. Reduce the emissions intensity of its GDP- **By 33 to 35% by 2030 from 2005 level.**

   Revised - **45% by 2030** from 2005 level.

2. Power installed capacity from non-fossil - 40%

   Revised - About 50%

3. Create an **additional carbon sink through additional forest and tree cover.**

   2.5 to 3 billion tonnes of CO_2 equivalent

Not Revised

Table 1: Estimates of temperature rise if NDCs are implemented

Report	Published by	Temperature rise if all 2030 NDCs are implemented
NDC Synthesis Report	UNFCCC	2.1–2.9°C
Emissions Gap Report 2022	UNEP	2.4–2.6°C
State of Climate Action 2022	Bezos Earth Fund, Climate Action Tracker, Climate Analytics, ClimateWorks Foundation, NewClimate Institute, the United Nations Climate Change High-Level Champions, and World Resources Institute	2.4–2.8°C
World Energy Outlook 2022	IEA	1.7°C

CoP 23 Bonn, 2019

- We are In
- Powering past coal Alliance – UK + Canada – phasing out of Coal
- Gender Action Plan – Role of women and impact on them
- Local Communities and Indigenous people's platform- strengthen their role
- Ocean pathway partnership – Oceans to be included in UNFCCC talks
- Talanoa dialogue – discussions without confrontation

KJWA

- Improved soil carbon, soil health and soil fertility under grassland and cropland as well as integrated systems, including water management;
- Improved nutrient use and manure management towards sustainable and resilient agricultural systems;
- Improved livestock management systems;
- Socioeconomic and food security dimensions of climate change in the agricultural sector.

KJWA is the only programme to focus on agriculture and food security under UNFCCC.

CoP 24 Kattowice,

- Paris rule book was agreed upon by the countries

CoP 26 Glassgow

- Panchamrit strategy by india
- Global Methane pledge – US and EU, 30% by 2030 reductions
- Glassgow financial alliance for Net zero (GFANZ) – Net zero by 2050

CoP 27 – Sharm -al-sheikh

1. Mangrove alliance for Climate

- **Global cause for Mangroves**
- **Knowledge sharing and collaboration**

2. Koronivia Joint Work for Agriculture (KJWA) given another four-year lease

3. First Movers Coalition

- The FMC is a coalition of **companies using their purchasing power to create early markets for innovative clean technologies** across eight hard to abate sectors.
- These in-scope sectors are responsible for **30% of global emissions**–a proportion **expected to rise to over 50% by mid-century** without urgent progress on clean technology innovation.
- Commitments for the first four sectors (Aviation, Shipping, Steel and Trucking) were launched in November **2021, at COP26 in Glasgow.**

The **Aluminum and Carbon Dioxide** Removal sectors were launched at the May 2022 World Economic Forum Annual Meeting in Davos, and the **Cement & Concrete sector was launched at COP27 in Sharm el-Sheikh.**

4. LeadIT (Leadership for Industry Transition) Summit 2022

- Hosted by India and Sweden

- focuses on low carbon transition of the hard to abate industrial sector.
- It was launched - **UN Climate Action Summit** in September 2019 and is supported by the World Economic Forum.

5. Methane Alert and Response System (MARS)

- UNEP's International Methane Emissions Observatory.
- Aim: To accelerate implementation of the Global Methane Pledge by transparently scaling up global efforts to detect and act on major methane emissions sources.
- It is satellite-based system that will alert governments, companies and operators about large methane sources to foster rapid mitigation action.

6. Global Shield against Climate Risk

By- G7 and V20 ('the Vulnerable Twenty')

- V20 is a dedicated cooperation initiative of economies systemically vulnerable to climate change.
- It was established in 2015 at Lima, Peru. o V20 Group membership stands at 58 economies

Climate Risk Insurance

World bank - Global Shield Financing Facility to support the initiative

Global Financial agreement pact

This **was not a 'pledging' conference**, but some announcements were unveiled, perhaps in an effort to address the **thorny trust erosion issue**.

1.MDBs: Multilateral Development Banks"

Additional lending capacity of $200 billion would be unlocked for emerging economies.

The World Bank **announced disaster clauses for debt deals**, that **would suspend debt payment in the case of extreme weather events**

2. Special Drawing Rights: 100 billion in SDRs for vulnerable countries

3. **A new JETP: A new 2.5 billion Euro JETP** deal was announced for Senegal, with a consortium of countries comprising of **Germany, France, Canada, the European Union, the United Kingdom**, with the goal of increasing the share of renewable energy in installed capacity to 40 per cent of Senegal's electricity mix by 2030.

4. Polluter taxes: Momentum on polluter taxes accelerated at the Summit, with many groups supporting a **tax on shipping emissions.**

5. Debt: It was announced that Zambia reached a $6.3 billion debt restructuring deal and decarbonise their economies".

6. Carbon markets: The EU unveiled a call to action on **'Paris Aligned Carbon Markets'** with the goal of covering **at least 60 per cent of global emissions with carbon pricing mechanisms (**compared to four per cent today) and allocating a proportion of the revenues to climate finance.

Ursula von der Leyen, EU Commission President called it "one of the most effective tools to cut emissions"

7. Climate finance goal: It was suggested that the l**ong overdue $100 billion climate finance goal will be delivered this year**,