



Conventions

Terminologies

Treaty

Between two/few
countries

Convention

Many countries under
world orgn.

Amendment

Change in clause

Protocol

Major amendment in
convention



Conventions

Terminologies

Conference of Parties (CoP)

Parties of Convention

Meeting of Parties (CMP)

Parties of protocol

Signatory

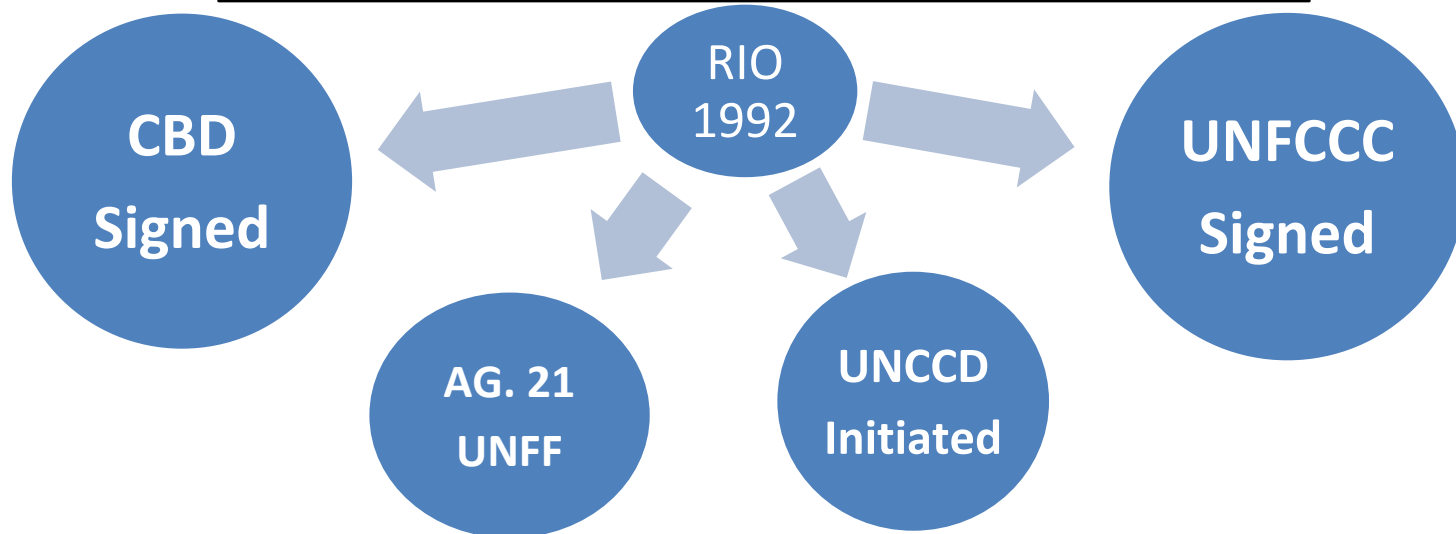
Intention, not binding

Ratification

By own national procedures, binding



Earth Summit at Rio





UNFCCC

United Nations Framework convention on Climate Change

- **Came into force on 21st March 1994**
- **(90 days after 50th ratification) , Total 197 countries**

Objective

- Stabilize green house gas concentrations at a level that would prevent dangerous anthropogenic (human induced) interference with the climate system.

Achieved within a timeframe sufficient

- To allow ecosystems to adopt naturally to climate change
- Food production not threatened
- Economic development to proceed in sustainable manner

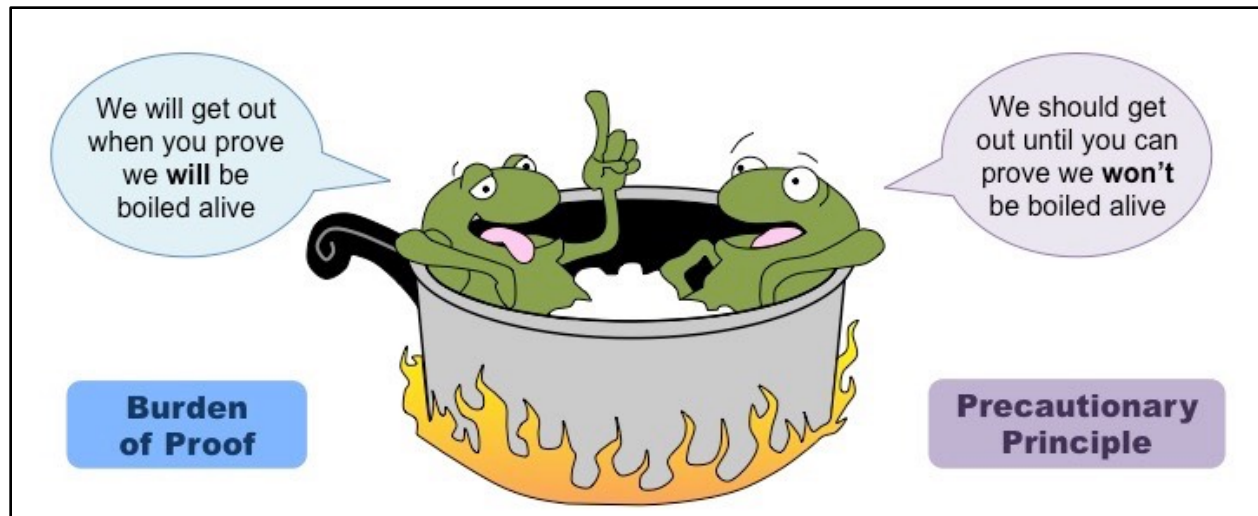


UNFCCC

IMP. PRINCIPLES

Precautionary Principle

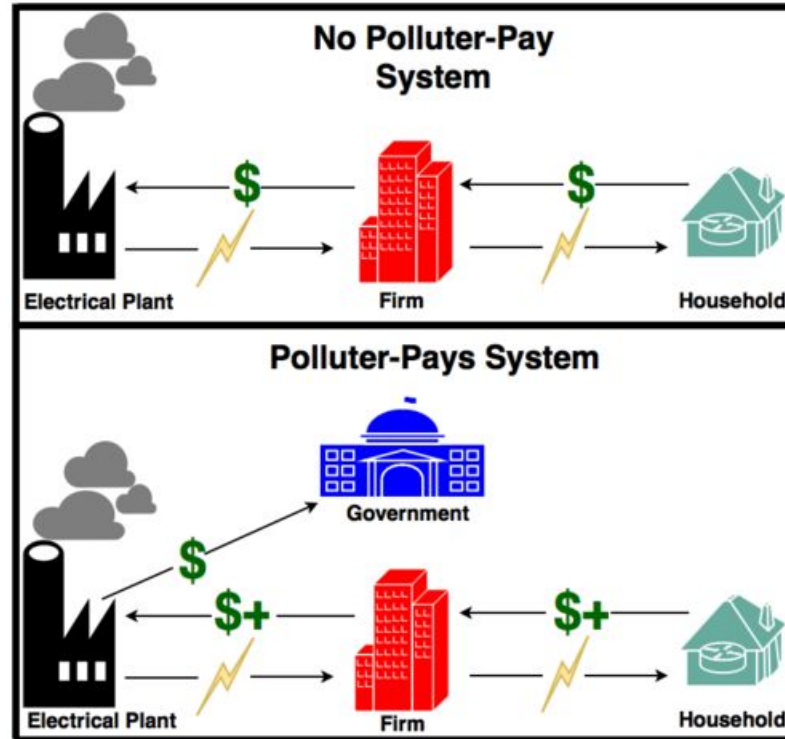
- Precautionary measures to anticipate, prevent or minimize causes and mitigate. When serious/irreversible damage, lack of full scientific certainty not a reason for postponement (sure science principle).





UNFCCC

IMP. PRINCIPLES



Polluters Pay

- Onus on countries responsible

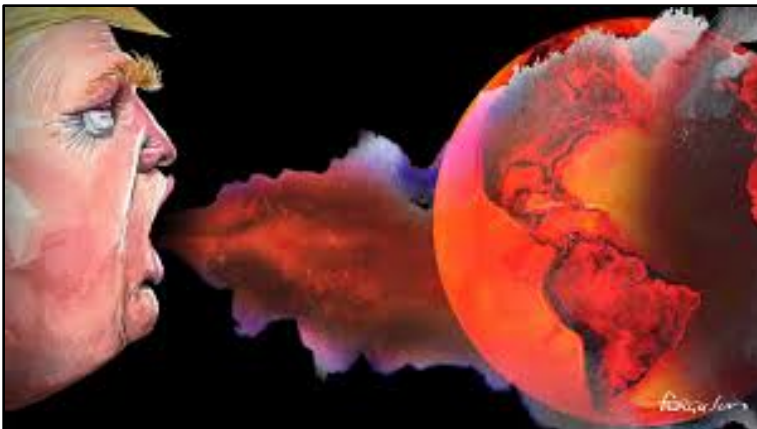


UNFCCC

Definition (s)

Climate Change

- Change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which in addition to natural climate variability observed over comparable time periods.





UNFCCC

Parties

Annex I – Organisation of Economic Co-operation and Development (OECD) + 12 Economy in transition countries (EIT) (C & W Europe)

Australia
Austria
Belarus^{a/}
Belgium
Bulgaria^{a/}
Canada
Czechoslovakia^{a/}
Denmark
European Economic Community
Estonia^{a/}
Finland
France
Germany
Greece
Hungary^{a/}
Iceland
Ireland
Italy
Japan
Latvia^{a/}
Lithuania^{a/}
Luxembourg
Netherlands
New Zealand
Norway
Poland^{a/}
Portugal
Romania^{a/}
Russian Federation^{a/}
Spain
Sweden
Switzerland
Turkey
Ukraine^{a/}
United Kingdom of Great Britain and Northern Ireland
United States of America

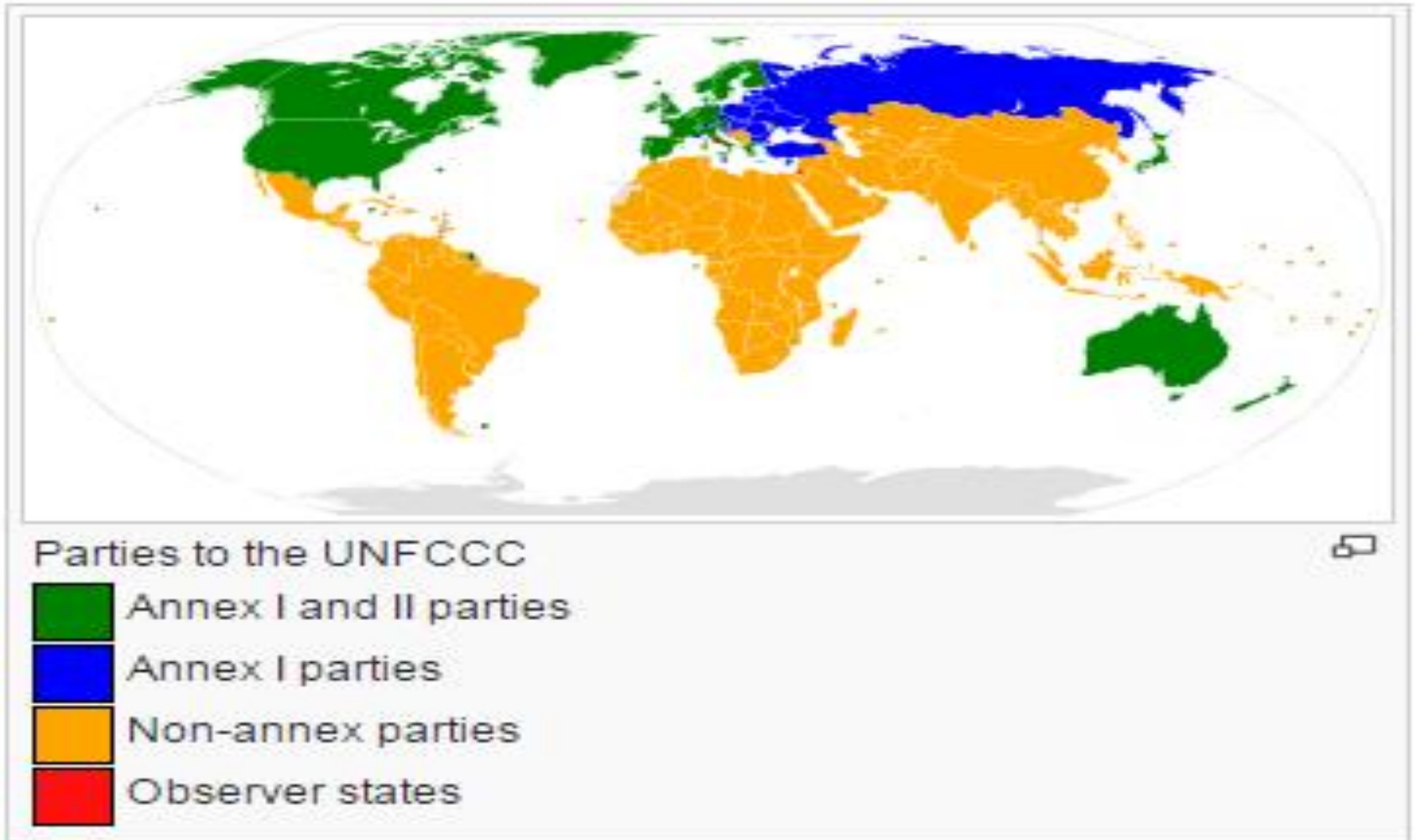
Annex II – Annex I - EIT

Australia
Austria
Belgium
Canada
Denmark
European Economic Community
Finland
France
Germany
Greece
Iceland
Ireland
Italy
Japan
Luxembourg
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland
United States of America



UNFCCC

Parties





UNFCCC

Parties

Annex I and Annex II

**Onus for past increase
Cut to 1990 levels by 2000**

Annex II

**Finance and Technology to EIT
and developing countries**

Non Annex

Developing countries

Least Developed Countries

49 countries

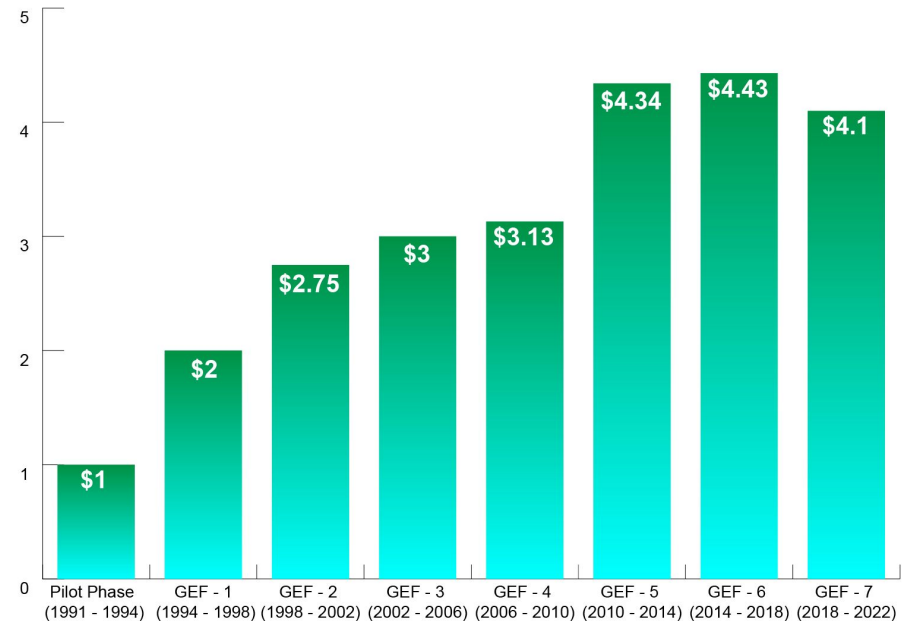


UNFCCC

Global Environment Facility (GEF)

- Interim arrangement
- UNDP, UNEP and World Bank
- Grants and loans by this arrangement
- Financial support over and above they already provide

GEF REPLENISHMENT CYCLES
(in billions of USD)



- Replenished every 4 years by 40 GEF donor countries
- World Bank is trustee



UNFCCC

Reporting

- Annex I – Annual Inventory of Green house gas emissions- 1990 base year and every year since
- Non-Annex – Report in more general terms, less regularly, contingent on funding



UNFCCC

Secretariat

- Secretariat in Bonn
- CoP every year, Presidency- Host country of CoP



- Venue rotates among 5 UN regions (Africa, Asia, Latin America & Caribbean, Central , Eastern & Western Europe and others)
- Bodies under conventions and Protocols
- Convention- 2 each from 5 regions, 1 small island nation (35% Women)



Kyoto Protocol-1997

Secretariat

In force on 15th February, 2005, 192 countries - parties

- Convention – Only asks to adopt policies and measures on mitigation and report periodically
- Kyoto protocol – operationalizes convention by committing to limit CHG emissions as per agreed targets



Common but differentiated responsibility and respective capabilities



Kyoto Protocol-1997

Annex A Green House Gases

1. Carbon dioxide (CO_2)
2. Methane (CH_4)
3. Nitrous Oxide (N_2O)
4. Hydrofluorocarbons (HFCs)
5. Perfluorocarbons (PFCs)
6. Sulphur hexafluoride (SF_6)

Individually
/ jointly

Annex B

1. Emission reduction/ levels w.r.t base level in 1990 to each country
2. Average 5 % reduction from base year in 5 years in first commitment period (2008-12)



Kyoto Protocol-1997

English
Page 24

Party

Australia	108
Austria	92
Belgium	92
Bulgaria*	92
Canada	94
Croatia*	95
Czech Republic*	92
Denmark	92
Estonia*	92
European Community	92
Finland	92
France	92
Germany	92
Greece	92
Hungary*	94
Iceland	110
Ireland	92
Italy	92

Annex B

Quantified emission limitation or reduction commitment
(percentage of base year or period)

Japan	94
Latvia*	92
Liechtenstein	92
Lithuania*	92
Luxembourg	92
Monaco	92
Netherlands	92
New Zealand	100
Norway	101
Poland*	94
Portugal	92
Romania*	92
Russian Federation*	100
Slovakia*	92
Slovenia*	92
Spain	92
Sweden	92
Switzerland	92
Ukraine*	100
United Kingdom of Great Britain and Northern Ireland	92
United States of America	93

* Countries that are undergoing the process of transition to a market economy.

Levels are same/increase/decrease



Kyoto Protocol-1997

Market based mechanisms

- Primarily through national resources
- But also through 3 market based mechanisms

- Does not matter where they are removed/reduced
- Green investment in developing countries
- Transfer to newer cleaner technology



Kyoto Protocol-1997

Market based mechanisms

1. International Emissions Trading

- Emissions permitted but not used can sell to that are over their targets
- Commitment period reserve – not to drop below certain level - prevent overselling



2. Joint Implementation

- Emission reduction/removal project in another Annex B party

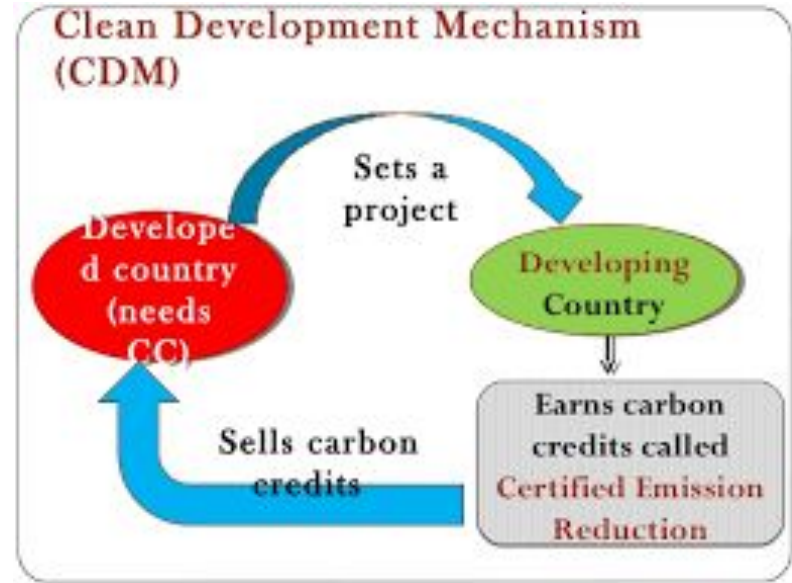


Kyoto Protocol-1997

Market based mechanisms

3. Clean Development Mechanism

- Implement emission reduction project in other countries



- Saleable Certified Emission Reduction (CER) credits each = one tonne of CO_2 eg. Rural electrification through solar, more energy efficient boilers



Kyoto Protocol-1997

Adaptation Fund

- In 2001 to finance concrete adaptation projects in developing countries that are particularly vulnerable to climate change
- Financed with share of proceeds from CDM project activities and also other sources
- Share of proceeds from CDM- 2 % of certified emission reduction (CERs) issued for a CDM project activity



Kyoto Protocol-1997

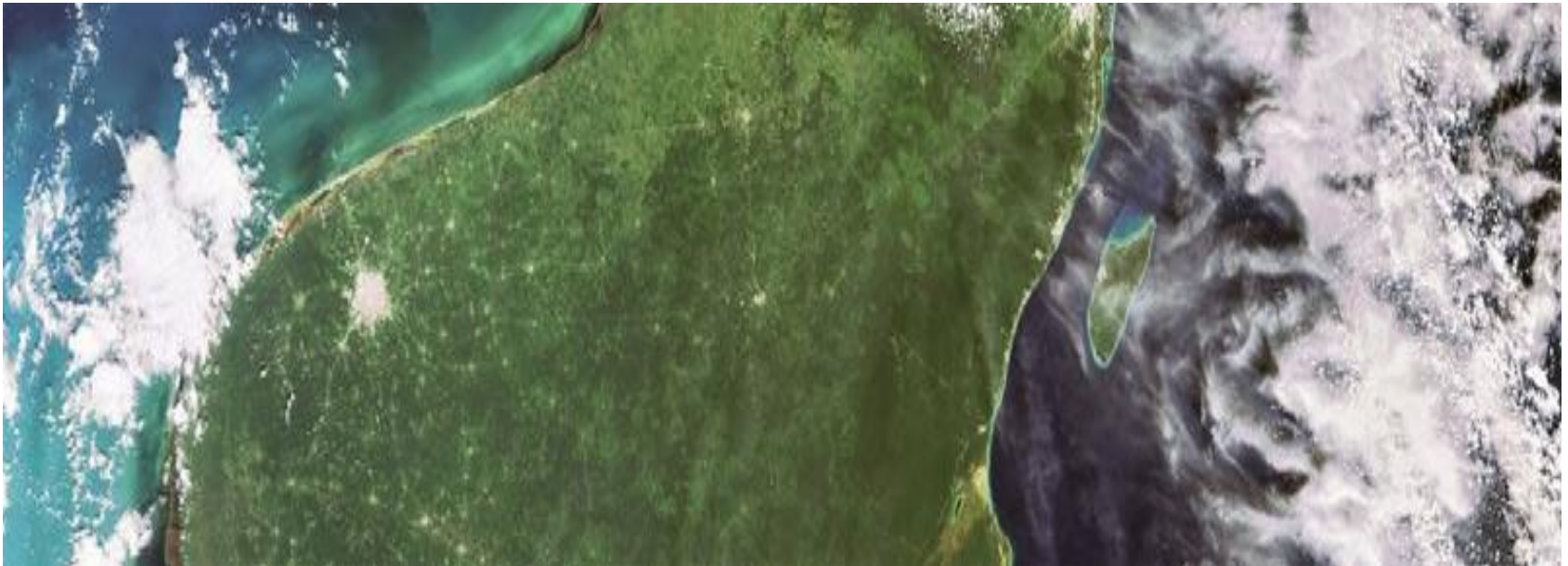
Results- 1st commitment period

- **38 countries committed (USA/Canada did not ratify/withdraw)**
- **36 countries committed to 4 % reduction**
- **Achieved 24.2 % below 1990 , With USA/Canada- 11.8%**
- **Dissolution of Soviet Union and financial crisis of 2007-08 contributed**
- **Global emissions increased by 32% from 1990-2010 - others**



Cancun-1997

Commit to max. temp rise of 2°C above pre- industrial levels and lower to 1.5°C in near future.





Cancun-1997

Technology mechanism in 2012 to be fully operational to boost innovation and spread of new climate friendly technologies

Establish Green Climate Fund to finance developing countries – Interim trustee is World Bank

Cancun Adaptation Framework – Adaptation committee for stronger cohesive action.





Doha Conference-2012



Amendment to Kyoto Protocol – Doha Gateway Plan



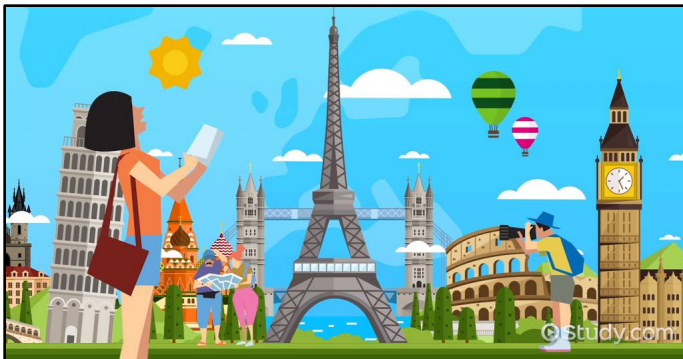
Doha Conference-2012



To stay below max 2 degree temp rise (pre industrialisation level)



Universal climate change agreement covering all countries from 2020, to be adopted by 2015



Scale up efforts even before 2020



Doha Conference-2012

Second commitment period-8 years from 2013-20

- 18 % reduction below 1990 levels (15% global emissions)
- TO be accepted by atleast 3/4 (144 countries)
- Till now only 140 countries



Warsaw Conference-2013

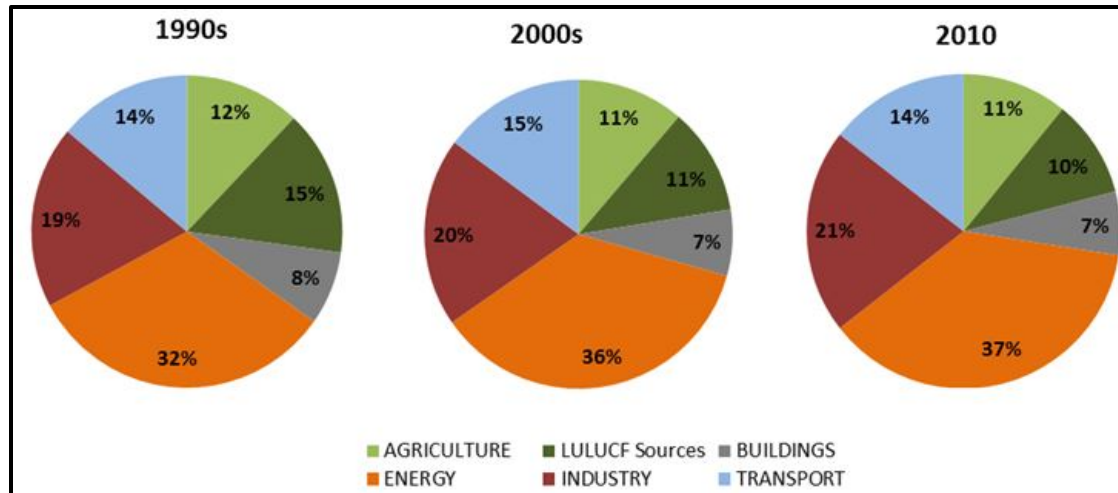


- **Intense Domestic preparations for Nationally determined Contributions well before December 2015**
- **REDD Plus**



Warsaw Conference-2013

- IPCC special report on climate change and land
- Agriculture, Forestry and other land use – 23 % of emissions
- REDD plus – largest potential
- Non carbon benefits - biodiversity, food security, clean water





Warsaw Conference-2013



Warsaw framework for REDD plus



Warsaw Conference-2013

REDD +

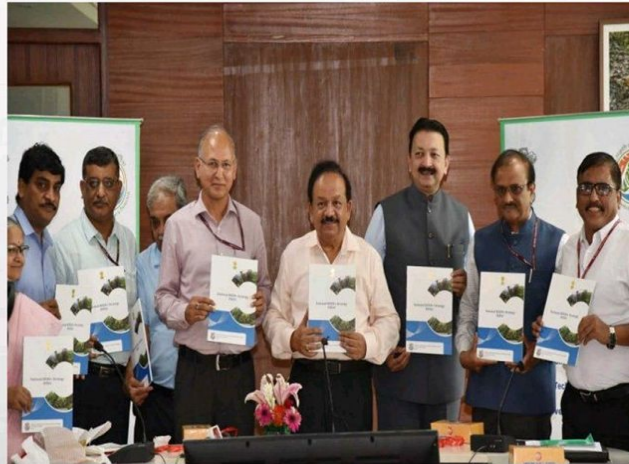


FAO , UNDP and UNEP (UN REDD)	Under UNFCCC
Funding and technical support to National REDD+ prog.	Voluntary climate change mitigation approach in developing countries
Assist them to qualify for payments under convention	Reduced emission from (i) def. & degrada. (ii) sustainable mgt. (iii) conservation and enhancement of carbon stocks
Established in 2007	2013-Warsaw (Acronym first used)

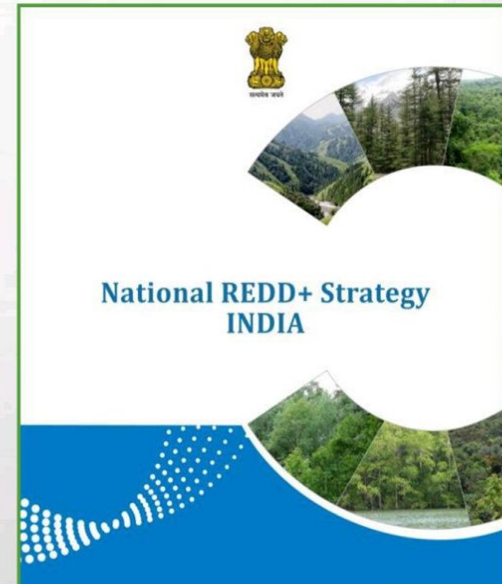


Warsaw Conference-2013

National REDD+ Strategy India 2018



ICFRE on behalf of MoEFCC prepared
National REDD+ Strategy
and released in August 2018



REDD Plus requirements

1. Forest reference emission level

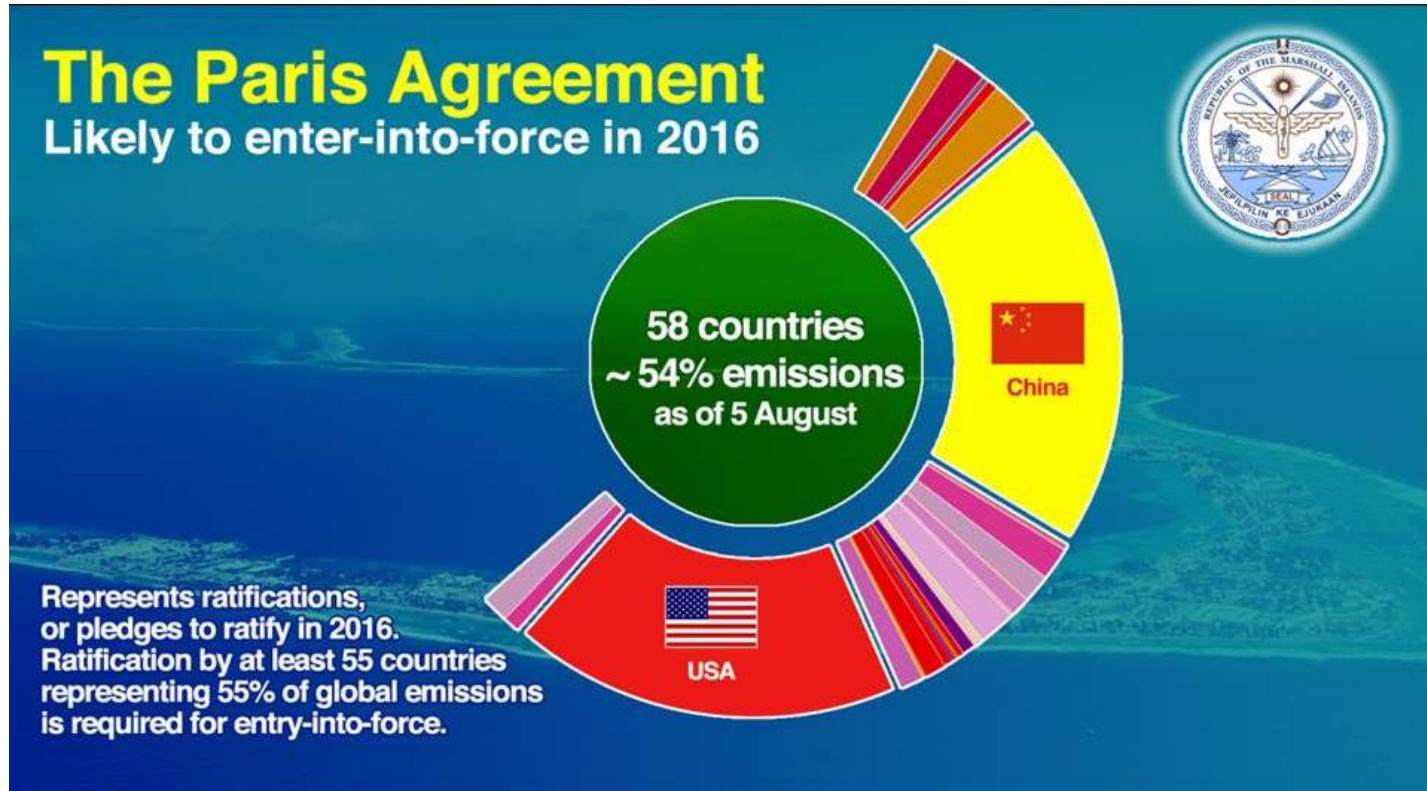
2. [National strategy/Action plan](#)

2. Monitoring and reporting system

4. Social and environmental safeguards while implementing



Paris Agreement- 2015



- **Historic- 196 signatories- All countries- 186 parties (ratification)**



Paris Agreement - 2015

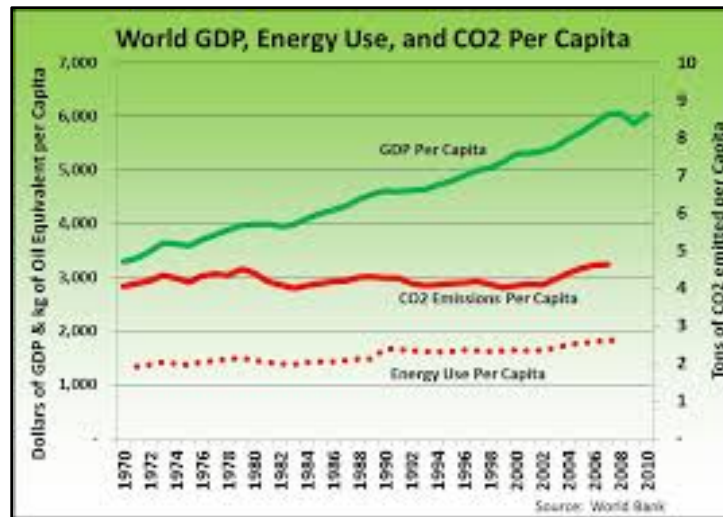
- Long term climate action post 2020
- **Nationally Determined targets (NDC) countries ambition for reducing emissions**
- 186 parties-first submission, 3 parties – second submission
- Came into force in November 2016 after 55 parties accounting for 55% of total emissions ratified.
- India NDC on 2nd Oct 2016



Paris Agreement - 2015

India NDC

8 Intentions, 3 quantitative



Reduce emissions intensity of its GDP by 33 to 35 % by 2030 from 2005

40 % electric power capacity from non fossil fuel (from GCF)



Paris Agreement - 2015

India NDC



Additional carbon sink of 2.5 to 3.0 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.



UNFCCC –Rio in 1992

(Only developed countries, no targets, not binding)



Kyoto Protocol- 1997

(Developed countries-binding targets)



Cancun-2010

(temp. decrease, GCF, technology mechanism, Adaptation framework, REDD Plus safeguards)



Contd..

Doha - 2012

(Second commitment period, NDC for all countries)



Warsaw – 2013

(INDC formulation, REDD plus)



Paris - 2015

(All countries, NDC)