

EU and the international climate regime

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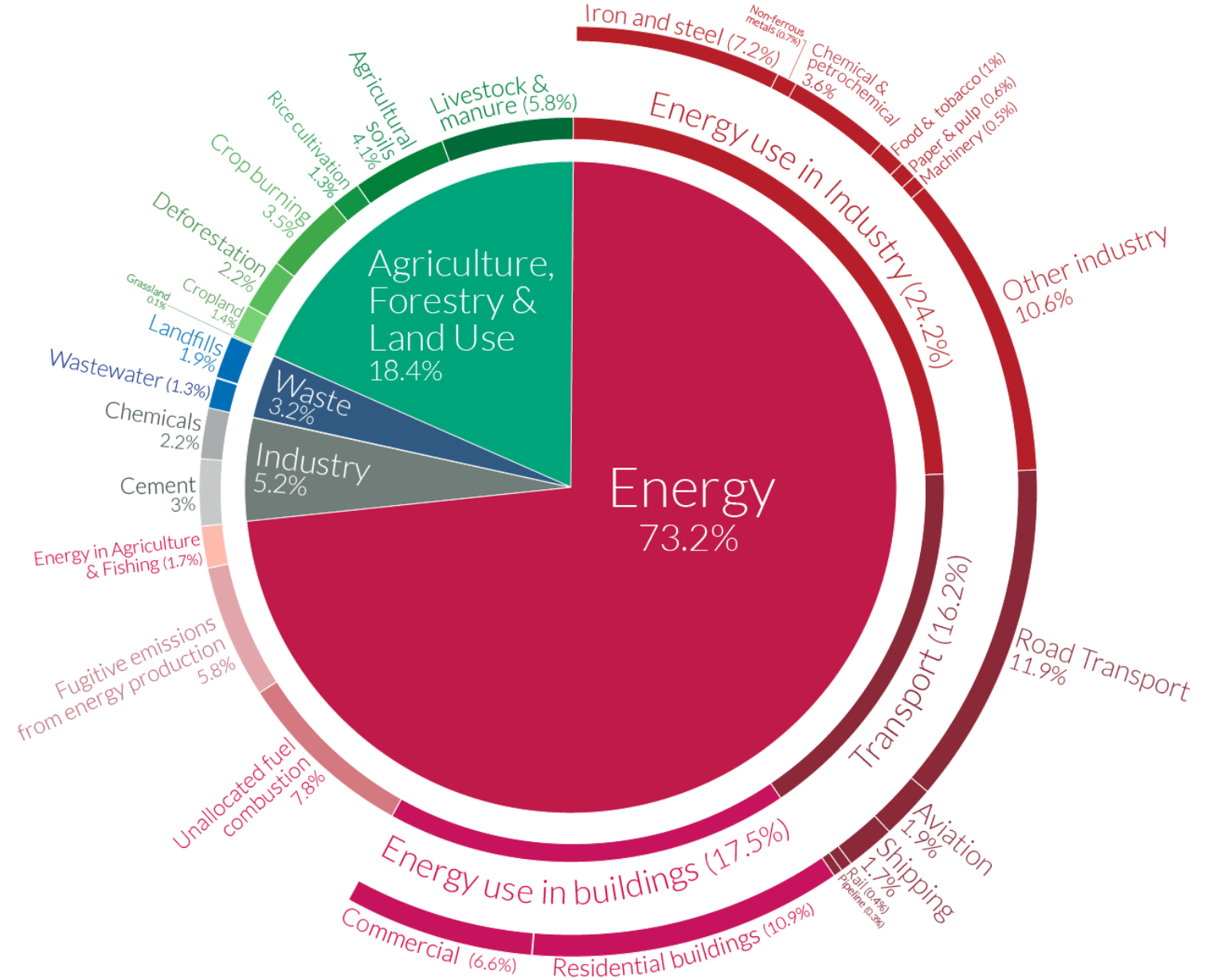
Climate dimension of EEP

Energy sector (extraction, transport, combustion and distribution) has significant environmental impact.

- Climate change – efforts to reduce GHGs emissions include the EU ETS, measures for GHGs outside the EU ETS, RES, energy efficiency, and new technologies like carbon capture and storage (CCS).
- Local environment protection – primarily managed through EU environmental policy, addressing air, land, and water pollution; noise and light pollution; industrial (energy) waste; biodiversity protection; and non-conventional energy sources.

Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO₂eq.



Climate dimension of EEP

Two interlinked processes:

- International regime of climate change mitigation (EU plays a leading role).
- Interlinked but independent climate policy of the EU (part of the EU energy policy).

International climate regime

- Intergovernmental Panel on Climate Change (IPCC) – established in 1988.
- Rio Earth Summit (UN Conference on Environment and Development) – 1992.
 - Led to the formation of the UN Framework Convention on Climate Change (UNFCCC) and the annual COP meetings.
 - Established political consensus on anthropogenic climate change.
- Kyoto Protocol – adopted in 1997, entered into force in 2005.

EU and climate change

- Environmental awareness.
- Preemptive environmental measures.
- Common market.
- Cross-border cooperation.
- Raison d'être.

- Geopolitical aim of projecting „a normative power“.

EU and climate change

- Art. 191(2) TFEU:

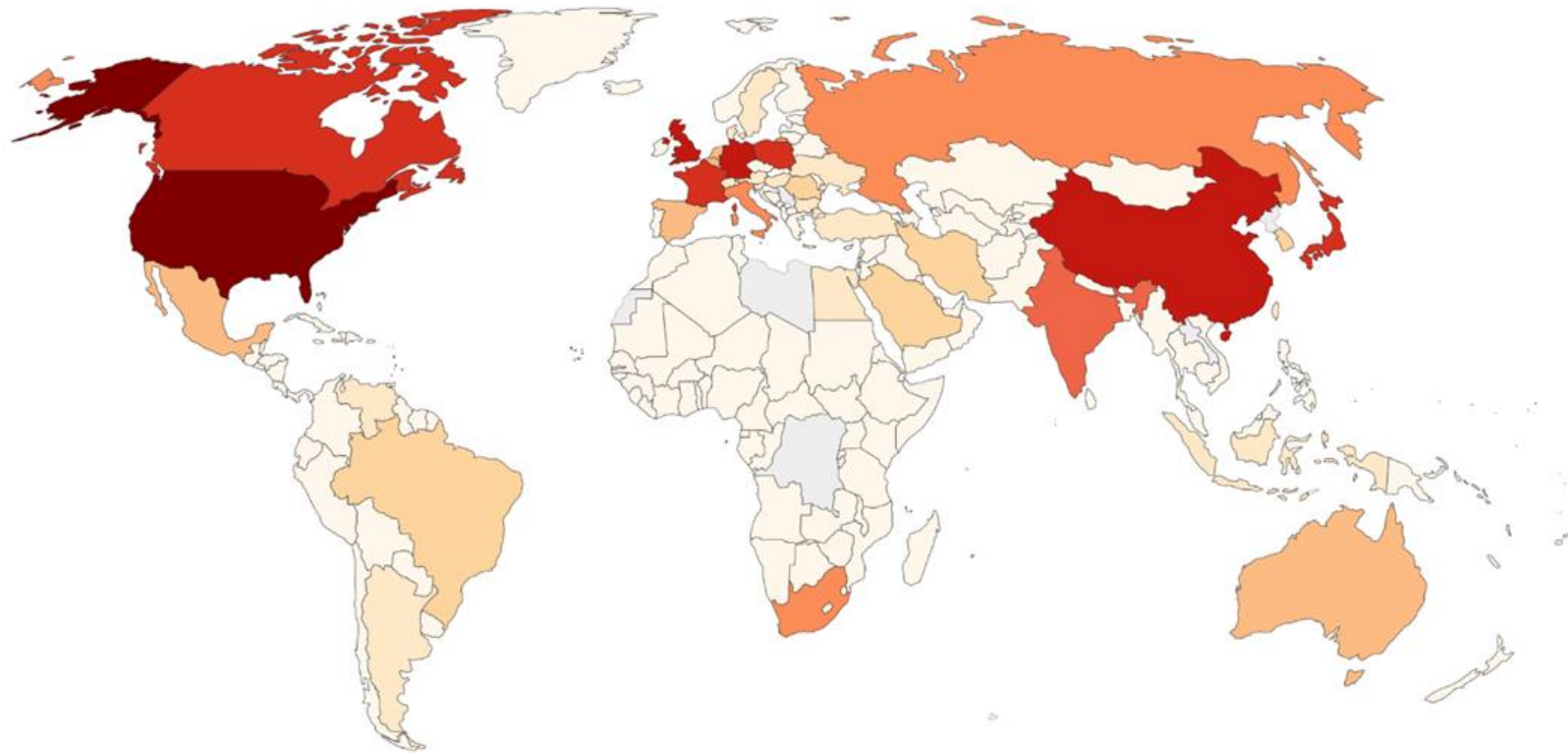
„Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay“.

Kyoto protocol (COP3)

- Aim to lower atmospheric GHG concentrations to levels that prevent dangerous climate interference.
- Parties categorized into Annex I (37 industrialized countries + EU15) and Non-Annex I (developing countries).
- Target to cut GHG emissions by 5.2% from 1990 levels during 2008–2012 (revised to 4.2% after U.S. withdrawal).
- Flexible mechanisms - Emission Trading, the Clean Development Mechanism (CDM), and Joint Implementation (JI).
- Article 4 outlines a burden-sharing agreement within the European Community.
- The first commitment period concluded in 2012.
- Principle of common but differentiated responsibility.

Cumulative CO₂ emissions, 1997

Cumulative carbon dioxide (CO₂) emissions represents the total sum of CO₂ emissions since 1751, and is measured in million tonnes.

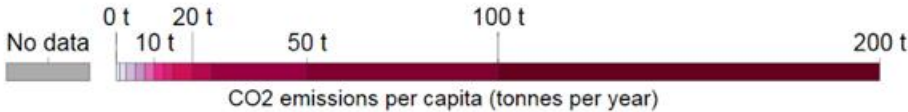
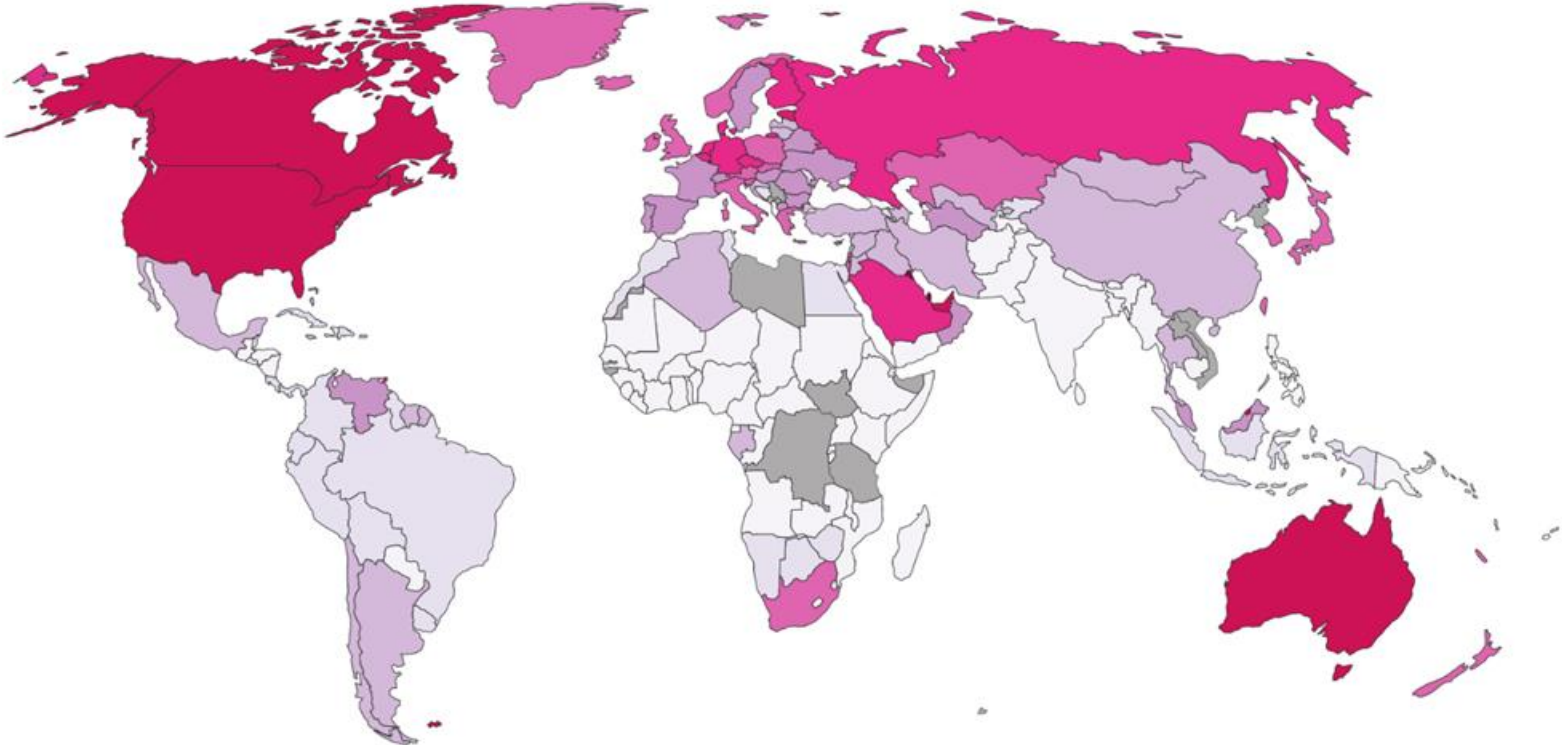


Source: Carbon Dioxide Information Analysis Centre (CDIAC)

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY-SA

CO₂ emissions per capita, 1997

Average carbon dioxide (CO₂) emissions per capita measured in tonnes per year



Source: CDIAC

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Emission trading

- Initially, the EU was skeptical, viewing emission trading as morally problematic.
- It seemed to authorize pollution by turning it into a commodity for buying and selling.
- Equity concerns arose, as wealthier industrialized countries could potentially purchase their way out of obligations rather than reduce their high consumption.
- However, a shift in the U.S. position propelled the EU to the forefront of the climate change movement.

ANNEX II

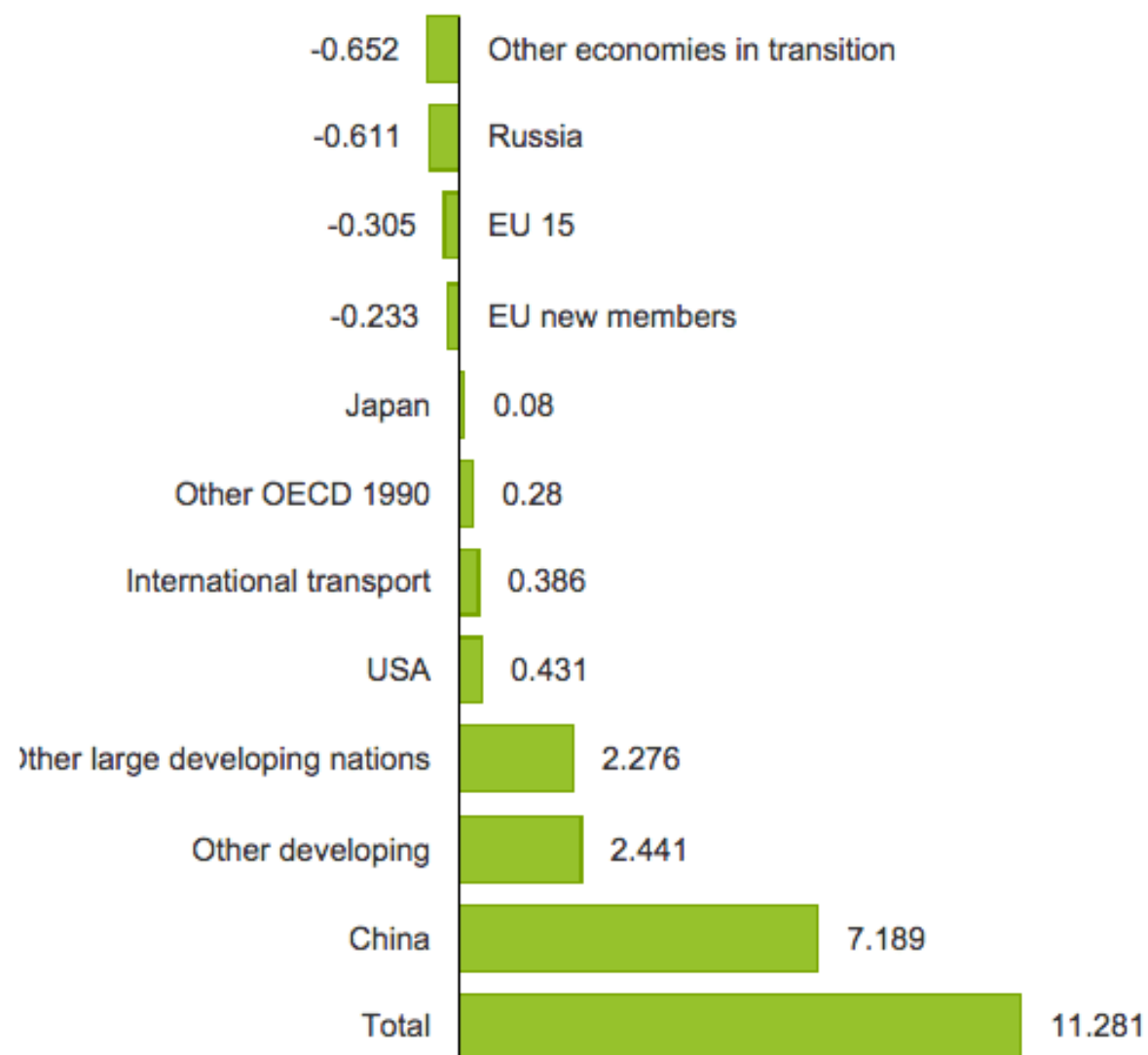
Table of quantified emission limitation or reduction commitments for the purpose of determining the respective emission levels allocated to the European Community and its Member States in accordance with article 4 of the Kyoto Protocol

	Quantified emission reduction commitment as laid down in Annex B of the Kyoto Protocol (percentage of base year or period)
European Community	92 %
	Quantified emission limitation or reduction commitment as agreed in accordance with article 4(1) of the Kyoto Protocol (percentage of base year or period)
Belgium	92,5 %
Denmark	79 %
Germany	79 %
Greece	125 %
Spain	115 %
France	100 %
Ireland	113 %
Italy	93,5 %
Luxembourg	72 %
Netherlands	94 %
Austria	87 %
Portugal	127 %
Finland	100 %
Sweden	104 %
United Kingdom	87,5 %

Kyoto Protocol results

- By 2012, CO₂ emissions from fuel combustion among parties with targets were 14% below 1990 levels; EU-15 emissions were down 8%.
- Emissions increased in some industrialized countries: Australia (+48%), New Zealand (+44%), Spain (+30%).
- Despite participation from 192 countries, the KP's impact is limited—no U.S. involvement, and no targets for developing countries, covering less than a quarter of global CO₂ emissions.
- However, its flexible mechanisms established CO₂ as a tradable commodity, spurring national emission trading schemes.

Change in CO2 emissions (GT), 1990 to 2011



Run-up to Copenhagen (COP 15, 2009)

- The EU's "leadership-by-example" approach promotes a global climate regime based on enforceable, multilateral agreements.
- Goal of a legally binding agreement to limit warming to 2°C, with global GHG emissions declining from 2020 and falling at least 50% by 2050 (from 1990 levels).
- The EU committed to a 20% reduction, offering up to 30% depending on a global agreement (2008/2009 Climate and Energy Package).
- Emission reduction targets proposed for all, with the EU ETS as a model mechanism.

Run-up to Copenhagen (COP 15, 2009)

EU's Approach to China

- Established the 2005 China–EU Partnership on Climate Change, leading to initiatives like the Europe–China Clean Energy Centre and the CDM Facilitation Project.
- Success in incentive-based cooperation, but limited progress in securing China's cooperation on binding UN climate targets.

EU's Approach to the US

- Faced reluctance under Bush's administration to address climate change.
- Increased optimism with Obama, though efforts to share EU ETS knowledge saw limited success.

Run-up to Copenhagen (COP 15, 2009)

EU's approach to India

- Similar to its approach with China, focusing on capacity-building projects but with even less success.
- India prioritized equity, historical responsibility, differentiation, climate finance, and technology transfer.

= Major emitters unwilling to accept binding international targets, viewing them as an infringement on sovereignty.

EU's preparation for Copenhagen

- Energy and climate package – 2020 targets (2009).
 - 20% reduction in EU greenhouse gas emissions from 1990 levels.
 - 20% share of renewable energy in EU consumption.
 - 20% improvement in energy efficiency.
 - EU ETS (2009/29/ES) and CCS (2009/31/ES).

Copenhagen (COP15, 2009)

- Aimed for a binding climate deal but resulted in the non-binding Copenhagen Accord.
- Recognized the 2°C target but lacked enforceable commitments.
- Developed nations pledged \$100 billion annually by 2020 for developing countries, but with vague mechanisms.
- Exposed political divides over responsibility, with developing countries urging more from wealthier nations.
- Highlighted the challenges of global consensus in climate policy.

Second commitment period of Kyoto Protocol (2013-2020)

- Concluded at COP18 in Doha (2012).
- Belarus, Canada, Japan, New Zealand, Russia, USA, and Ukraine did not participate.
- Commitments covered only about 15% of global GHG emissions (2010 levels).

Run-up to Paris (COP 21, 2015)

EU's approach to China

- Acknowledged China's sovereignty concerns, focusing on a bottom-up approach.
- China shifted from heavy industry to a service-oriented economy under President Xi Jinping.
- China prioritized cooperation with the U.S., culminating in a 2014 agreement.

EU's approach to US

- U.S. domestic policy deadlock (e.g., failure of American Clean Energy and Security Act) led the EU to seek alliances with emerging economies (High Ambition Coalition).
- Improved communication during Obama's second term.

EU's approach to India:

- Under Narendra Modi, India adopted a more open stance on climate issues but continued to emphasize equity, differentiation, and the need for resources to rebuild its economy.

Run-up to Paris (COP 21, 2015)

- U.S.-BASIC Coalition: The U.S. aligned with the BASIC countries (Brazil, South Africa, India, China) in supporting flexible, nationally determined contributions (NDCs), allowing countries to set their own climate targets.
- EU's High Ambition Coalition: The EU led a coalition focused on an ambitious, binding framework with a 2°C target and a strong system for reviewing and increasing commitments over time.
- Toward the end of COP21, the U.S. and Brazil encouraged China and India to join the High Ambition Coalition, building a unified front for the final Paris Agreement.

EU's preparation for Paris

2014 – 2030 Climate and Energy Policy Framework.

- Targeting at least a 40% reduction in greenhouse gas emissions from 1990 levels (EU-wide binding).
- Sets a 32% (originally 27%) renewable energy goal (RED II), with countries submitting 10-year plans but no individual national targets.
- Aims for a 32.5% (originally 27%) improvement in energy efficiency (non-binding, indicative targets).
- EU ETS reform: 43% reduction in ETS sectors and 30% in non-ETS sectors from 2005 levels, no external credits.
- Focus on connecting isolated energy markets in the Baltics, Spain, and Portugal.

Paris Agreement (COP21)

- Legally binding treaty with reduction commitments from 187 countries, effective from 2020 (requires 55 countries covering 55% of emissions to enter into force).
- Aims to limit global warming to below 2°C, with an ambition for 1.5°C.
- Requires all parties to set "nationally determined contributions" (NDCs) and implement domestic measures to achieve them.
- Countries must report regularly on emissions and progress, undergoing international review.
- New NDCs are submitted every five years, each representing progression from the previous ones.

Paris Agreement (COP21)

- Reaffirms binding obligations for developed countries to support developing countries and encourages voluntary contributions from developing nations.
- Extends the \$100 billion annual support goal through 2025, with a higher target to be set afterward.
- Establishes a “loss and damage” mechanism to address climate impacts, without liability or compensation.
- Requires countries in international emissions trading to avoid “double counting.”
- Proposes a new mechanism, similar to the Clean Development Mechanism, allowing emission reductions in one country to count toward another’s NDC..

Paris agreement implementation

- China pledges to reach net-zero emissions by 2060 and increase investments in renewable energy, with EU-China cooperation formalized in the EU-China Leaders' Statement on Climate Change and Clean Energy.
- In 2017, President Trump announces the U.S. withdrawal from the Paris Agreement, prompting EU-Canada cooperation to fill the leadership gap.
- Growing recognition of climate change in Indian politics.

EU's preparation for Glasgow

- Clean Energy for All Europeans (2018-2019):
 - 55% reduction in greenhouse gas emissions from 1990 levels.
 - 32% share of renewables in energy consumption.
 - 32% improvement in energy efficiency.
- 2019 European Green Deal: Policies to achieve climate neutrality by 2050.
- 2021 European Climate Law: Legally binding targets of net-zero emissions by 2050 and a 55% reduction by 2030.
- 2021 Fit for 55
- EU Funds: Financial support for climate initiatives.

Fit for 55

- EU ETS reform (maritime transport, aviation...)
- Effort sharing regulation.
- Emissions from LULUCF.
- RES targets.
- Energy efficiency targets.
- Fuels infrastructure for low carbon transport.
- CO2 emission standards for cars and vans.
- Energy taxation.
- CBAM.
- Sustainable ship and aviation fuels.
- Social climate fund.
- ...

Glasgow pact 2021 (COP26)

- Glasgow (2021) marked the first mandatory update of climate targets set in Paris (2015), aiming to strengthen efforts toward the 1.5°C goal.
- Some major emitters (Australia, China, Saudi Arabia, Brazil, Russia) offered weak pledges; the U.S. announced ambitious goals but lacked concrete plans.
- Commitment to "phase down" coal and fossil fuel subsidies (weakened wording, possible CCS inclusion).
- Article 6 established rules for an international carbon market, emphasizing transparency.
- Pledges for deforestation reduction, climate finance, and methane cuts.
- Financial sector aiming for net-zero portfolios by 2030, representing \$130 trillion in assets.

Principles of EU climate policy

- Agreement on the highest political level – Council of the EU → consensus, EU-wide targets for GHG reduction, RES and EE.
- Carbon pricing through the EU Emissions Trading System (ETS) encourages emission reductions.
- Integrated policy approach combining ETS, renewable energy targets, and energy efficiency goals.
- Differentiated targets ensure fairness, with support for lower-income Member States.
- Measures to protect EU industries and drive innovation through dedicated funding.