Global Climate Governance: The Role of International Institutions and Policy Frameworks

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1/ Intro: what is Climate Governance?

2/ A bit of context (history of science): climate change as a scientific AND political question

3/ What is the IPCC?

4/ The role of the UNFCCC in global climate governance

5/ The Kyoto Protocol 1997

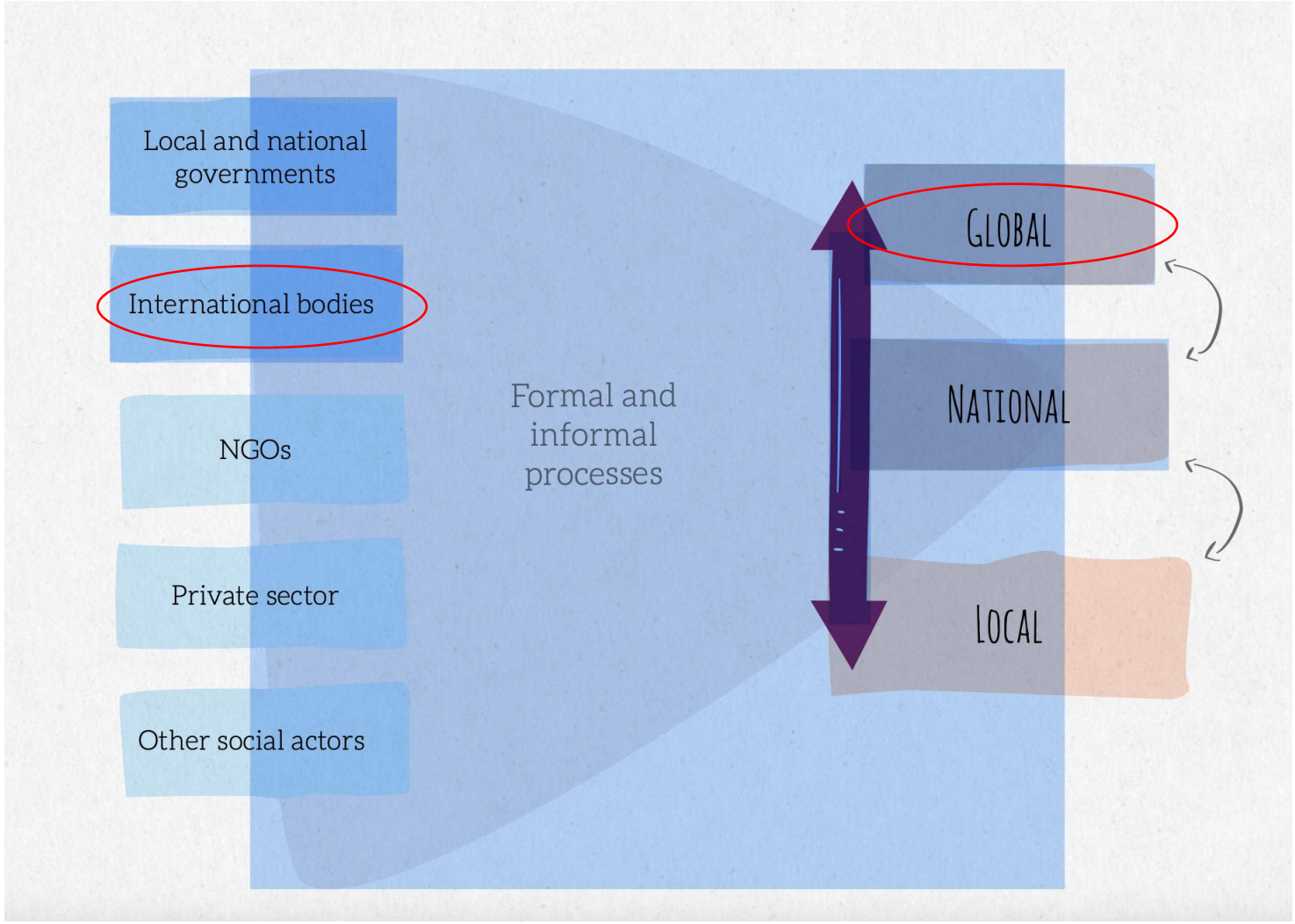
6/ The Paris Agreement 2015

7/ What is coming ahead in global climate negociations?

Climate Governance: A Multilevel process

• Climate governance refers to the **intricate network of decision-making and implementation processes** that include governments, international bodies, private companies, and civil society, all working together to tackle the global issue of climate change across various levels.

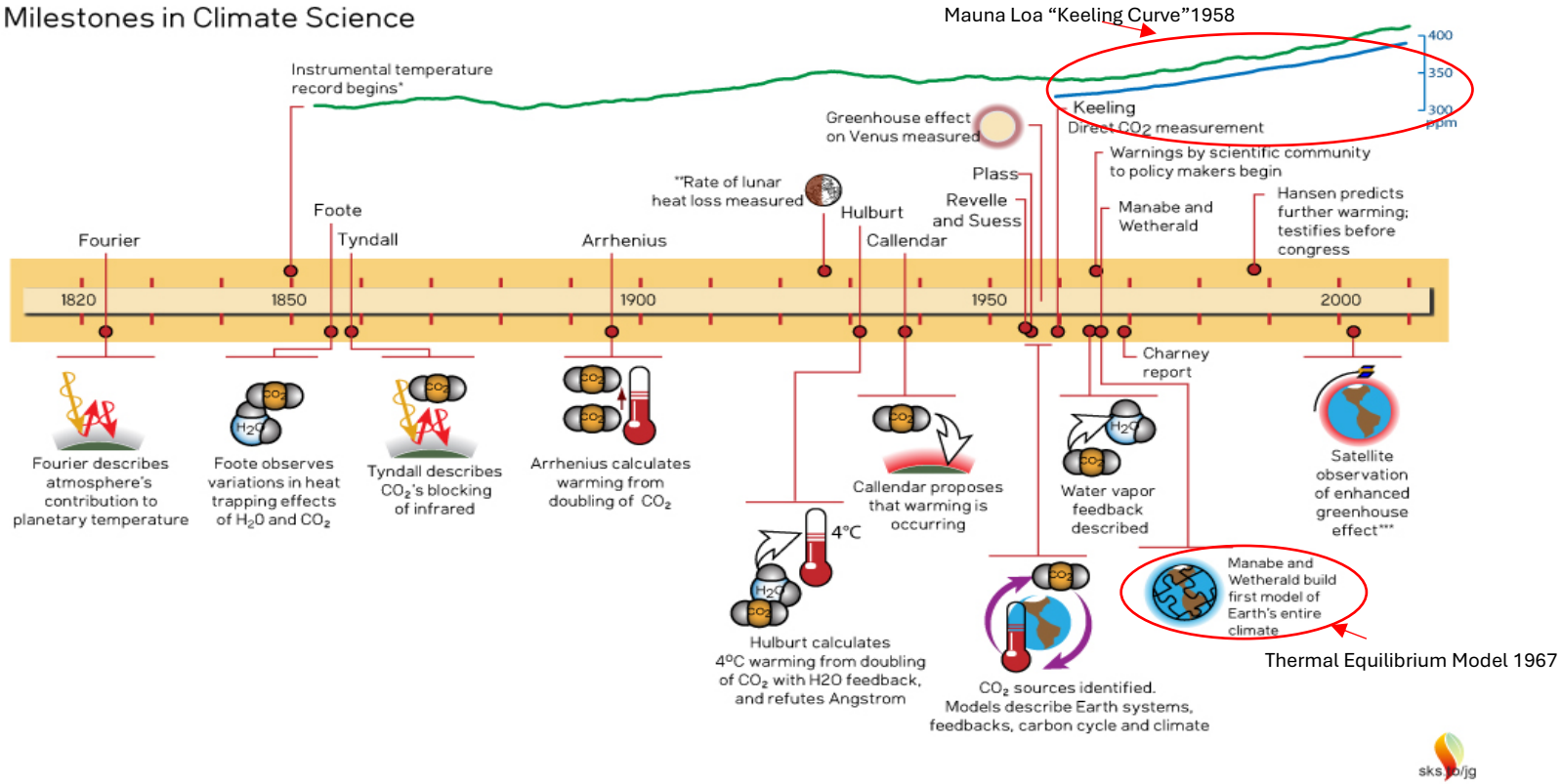
• It involves the regulations, institutions, and frameworks that direct how societies organise their efforts to meet climate objectives and support sustainable development.



(Jänicke, 2017)

The Science of Climate Change

- Awareness of climate change in the 18th century centered on human impacts on the environment: impact of deforestation and land use on climate (e.g. the work of Jean-Baptiste Fressoz)
- In 19th and 20th Century: The Greenhouse Effect



The political awareness

- Since the early 1970s, a general awareness has grown regarding the environmental impacts linked to population growth, economic activity, and the exploitation of natural resources.

- **The Meadows Report "Limits to Growth"**, published in 1972 by the Club of Rome, an influential think tank, marked a turning point. (About the consequences of exponential economic and population growth with finite supply of resources, using a system dynamics model)

- The **1972 Stockholm Conference**: First **global** conference on environmental governance, in a context of decolonisation and Cold War. Creation of United Nations Environment Programme (UNEP) with headquarters in Nairobi, Kenya

The role of the World Meteorological Organisation (WMO)

- The WMO originated as the International Meteorological Organization in 1873, becoming the WMO in 1947, again in a context of pre-Cold War.

- **The World Climate Research Programme (WCRP)** established in 1980, instrumental in propelling the advancement of climate science (e.g. CMIP project): first recommendations of CO_2 emission reduction in 1987.

- WMO and the UNEP set up **the Intergovernemental Panel on Climate Change** (IPCC) in 1988.

What is the IPCC?

- Its main objective is to assess scientific and socio-economic information on climate change, its impacts and the various options for mitigating or adapting to it. (and upon request, scientific, technical and socio-economic advice for the COPs)

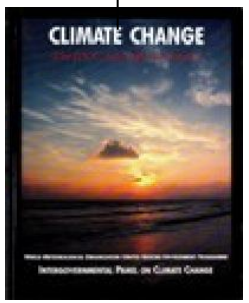
- Its role is to **assess and synthesize** the scientific, technical, and socio-economic literature related to climate change.

- The IPCC provides policymakers with objective, comprehensive, and policy-relevant assessment reports but **does not establish policies, create binding commitments, or enforce regulations**. It is a scientific advisory body, not a treaty or legal instrument.

IPCC Assessment Reports

United Nations Framework Convention on Climate Change (UNFCCC)

1990 — 1992 — 1995 — 2001 — 2007 — 2013/2014 — 2021/2022 — 2028/2029



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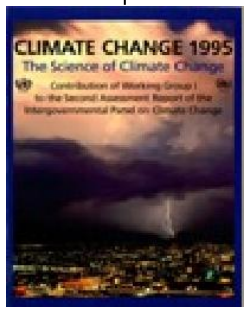

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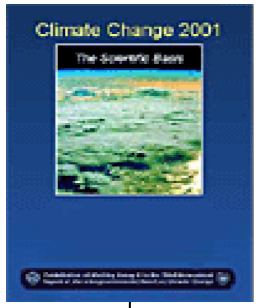

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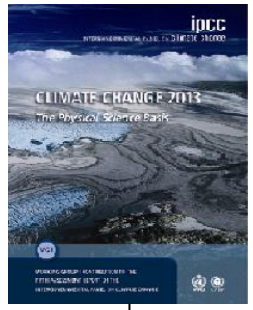

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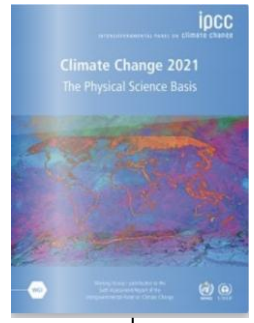

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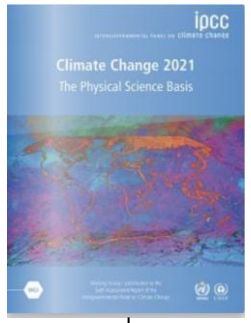


+17 Technical reports including the forthcoming special report on Climate change and cities

The Rio de Janeiro Conference (Earth Summit) 1992

- After the 1972 the Stockholm Conference, first global conference to address environmental issues, the Earth Summit was created as a means for member states to **cooperate together** internationally on development issues **after the Cold War**: huge success, 172 governments present + 2400 NGOs+17000 participants from NGOs

- Outcome: three binding treaties

1/ Convention on Biological Diversity
2/ United Nations Convention to Combat Desertification
3/ **Framework Convention on Climate Change (UNFCCC)**

And Agenda 21: a non-binding action plan for Sustainable Development (SDG)

United Nations Framework Convention on Climate Change (UNFCCC)

- International treaty among countries to combat "dangerous human interference with the climate system", based on the results of the FAR IPCC 1990.

- Signed in 1992 by 154 states in Rio (198 “parties” in 2022, including the EU as a single party, the Vatican, the state of Palestine..etc), and ratified by governments later on.

- The ultimate objective of the Framework Convention is specified in Article 2: "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

- No clear emissions reduction objectives, but a “step-by-step approach” negotiation process has started, based on the successful example of Vienna Convention for the Protection of the Ozone Layer (1985), leading to the signature of **the Protocol of Montréal (1987)**

- Conference of Parties: yearly conferences held in the framework of the UNFCCC (COP1 in 1995)

United Nations Framework Convention on Climate Change (UNFCCC)

Structure of the UNFCCC in 1992:

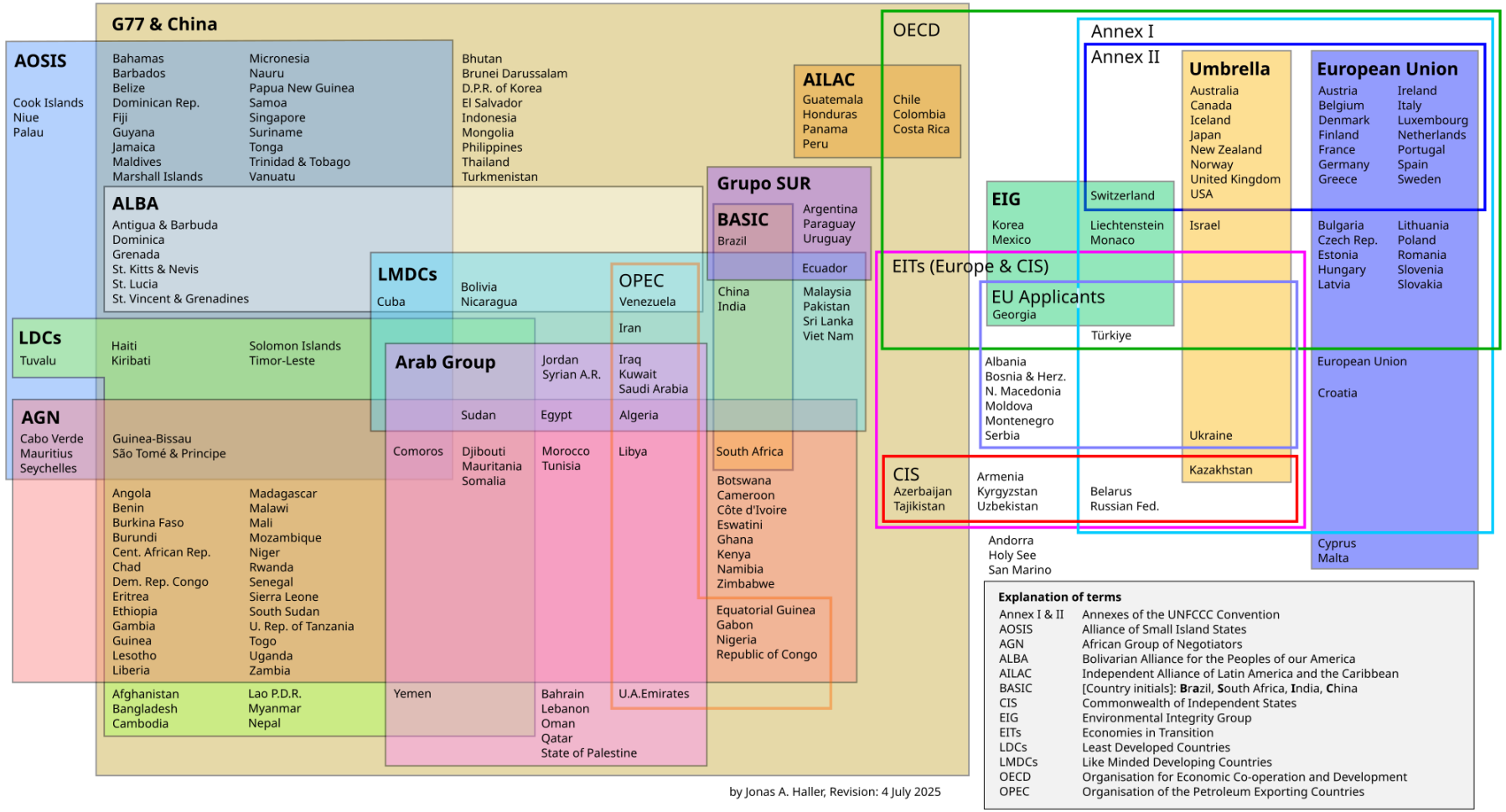
- **Annex I Parties** → Mainly industrialized countries (OECD members in 1992) and economies in transition (the former Soviet bloc). They were expected to take the lead in reducing greenhouse gas emissions because they were historically the largest emitters.

- **Annex II Parties** → A subset of Annex I (the OECD members, but not the economies in transition). They had the obligation to provide financial and technological support to developing countries.

- **Non-Annex I Parties** → Developing countries, with no binding emission reduction targets at the time.

Based on the UN collective G77 (non-aligned countries) + China, a very heterogeneous group of collectives with diverging interests (fossil-fuel countries, AOSIS (Alliance of Small Island States), Least Industrialized Countries. Etc)

Parties of the UNFCCC and the most common party negotiation groups



(Haler, 2025)

The Kyoto Protocol (1997)

ALL THE NEWS WITHOUT FEAR OR FAVOR

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Daily Non-stops from Tokyo
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SAS SCANDINAVIAN AIRLINES

The Japan Times

A Dynamic City; A Progressive Hotel
Nagoya Hanako Hotel
(052)231-7711
Tokyo Office (in Imperial Tower) (03)3501-7588

101ST YEAR NO. 35,474 ISSN 0289-1956 ©THE JAPAN TIMES, LTD., 1997 Friday, December 12, 1997 5TH EDITION ¥160 Consumption tax included

TODAY

► NATIONAL

Nago sets plebiscite
The Nago Municipal Government formally announces that a plebiscite will be held Dec. 21 on whether the Okinawa city should support construction of an offshore heliport for the U.S. military.
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► ASIA-PACIFIC

Taiwan on the record
Winners and losers in Taiwan's local elections seek to reassure U.S. officials they expect no change in dealings with the U.S. or China.
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► WORLD

What human rights?
Hillary Clinton highlights the lack of progress for many women in a speech at a U.N. ceremony marking the 50th anniversary of the Universal Declaration of Human Rights.
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► BUSINESS

Japan T-bond seller
In a sharp reversal, Japan becomes a net seller of U.S. Treasury securities

160 nations adopt Kyoto Protocol

Developed countries to cut their gas emissions by 5.2%

By SUMIKO OSHIMA and ASAKO MURAKAMI
Staff writers

KYOTO — Some 160 nations on Thursday adopted a historic agreement to fight global warming that calls on industrialized nations to cut the total volume of their greenhouse gas emissions by 5.2 percent between 2008 and 2012.

After an all-night negotiating session, the Third Conference of Parties to the United Nations Framework Convention on Climate Change produced the Kyoto Protocol, which for the first time ever sets legally binding targets for greenhouse gases, is required to reduce emissions by 7 percent, the European Union by 8 percent and Japan by 6 percent.

The enforcement issue was pushed aside, but parties to the convention will meet in the future to determine how to penalize countries that fail to meet their targets.

An article on developing nations' "voluntary" participation in the fight against global warming — strongly demanded by the U.S. at the Kyoto conference — was deleted. Developing nations opposed the clause, fearing an eventual mandate that they be required to curb emissions.

The six types of gases singled out for reductions are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.

Whether to include all six was a main point of contention; initially, only the U.S. wanted all listed in the protocol.

It was also agreed that a "clean development mechanism" will be established, under which "credits" will be given to developed countries that provide financial assistance to developing countries in their efforts to reduce gas emissions.

In addition, a country will be allowed to subtract the amount of greenhouse gases absorbed by forests within its borders from its emissions.

The protocol allows the European Union to keep its "bubble" scheme, under which its 15 members will have different targets but will work together toward a common emissions-reduction goal.

Ritt Bjerregaard, head of the EU negotiating team, said that although an 8 percent reduction for the EU was agreed to, how the target will be achieved remains to be worked out.

"It's clear that we will have to go back and analyze the results of the conference," she

KYOTO COP3

RAUL ESTRADA-OYUELA (center), chairman of the Committee of the Whole at the global warming conference that ended Thursday in Kyoto, is congratulated after the committee approved a draft protocol for gas emissions cuts. KYODO PHOTO

Hashimoto vows efforts

Gist of Kyoto Protocol

- Reduce Greenhouse Gas Emissions: Curb the emission of six major greenhouse gases (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) responsible for global warming. (38 industrialized countries by 5.2% between 2008 and 2012 compared to the levels in 1990, extended to 2020 by the Doha Amendment).
- Legally Binding Commitments: Hold developed countries (Annex I) to legally binding emission reduction targets, reflecting their higher historical responsibility.
- **Principle of Common but Differentiated Responsibility**: Recognize differences in countries' economic development and historical emissions, with developing countries not held to binding targets but encouraged to adopt voluntary measures.
- Market-based Mechanisms: Introduce **International Emissions Trading**, the **Clean Development Mechanism (CDM)**, and Joint Implementation (JI) to help countries meet their targets more cost-effectively and incentivize global collaboration.
- Support for Adaptation: Establish an **Adaptation Fund** to assist developing countries in managing the adverse impacts of climate change, supported by contributions from developed nations.

How effective was Kyoto at reducing global GHG emissions?

Highly debated among political scientists

- While the Protocol set the first legally binding reduction targets for developed countries, global emissions **still increased due to developing nations** not having binding limits and key emitters withdrawing or not ratifying**: US never ratified and Canada (ratified but didn't meet emission targets).**

- Annex I countries that participated in the first commitment period achieved CO_2 reductions of about 12.5% between 1990 and 2012, surpassing the protocol's original target for these countries.

- During the second commitment period (2013–2020), developed country participants achieved an average reduction of 22% below 1990 levels, with the European Union reducing emissions by 23% over the same period.

- Individual success stories include some EU countries and the UK, which reduced emissions by over 30% compared to 1990.

- Despite successes, **global GHG emissions rose by approximately 32% from 1990 to 2010**, primarily due to rapid economic growth and increased emissions in the developing world,

The Paris Agreement (2015)

The Copenhagen Climate Conference 2009 (COP15) negotiations were intended to produce a successor treaty of Kyoto, but the negotiations collapsed due to a combination of factors (lack of trust and inclusiveness, opacity..).

The Outcome of the Paris Climate Accords (COP21) in 2015:

- Holding the increase in the global average temperature to well **below 2 °C** above pre-industrial levels and to **pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels**, recognizing that this would significantly reduce the risks and impacts of climate change;

- Increasing the ability to **adapt to the adverse impacts** of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;

- Making **finance flows** consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

Huge diplomatic success: 195 parties signatories

What was new in The Paris Agreement?

- The Paris Agreement has been described as having a bottom-up structure, as its core **pledge and review mechanis**m allows nations to set their own **nationally determined contributions (NDCs**), rather than having targets imposed top down , like in the Kyoto Protocol.

- All parties are required to submit emissions reduction plans. No difference betwwen Annex I and non-Annex I.

The Paris Agreement still emphasizes the principle of Common but Differentiated Responsibility and Respective Capabilities but it does not provide a specific division between developed and developing nations.

How do the NDCs work?

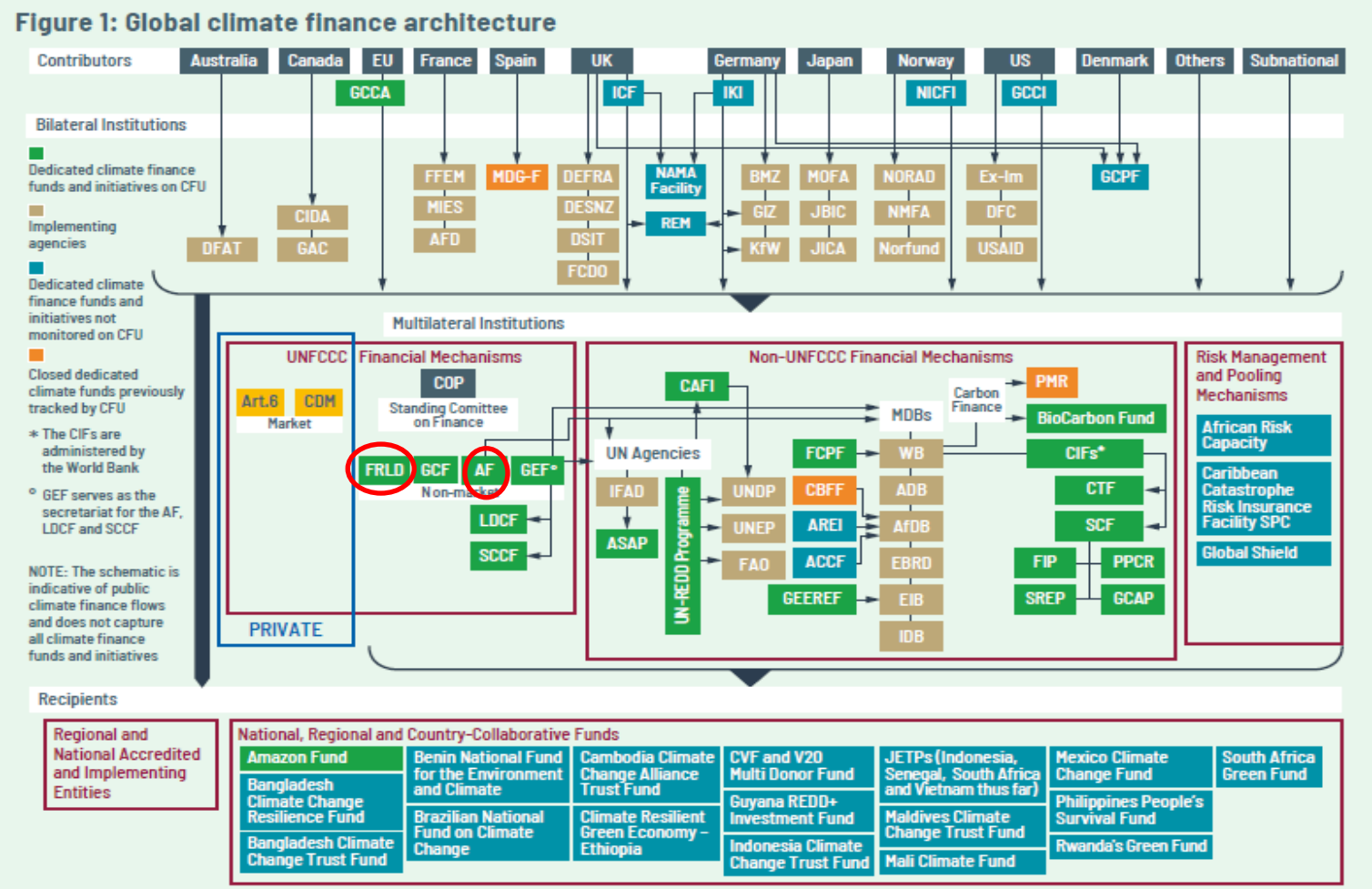
- Countries determine themselves what contributions they should make to achieve the aims of the treaty.
They have to be “ambitious” towards "achieving the purpose of this Agreement" and to "represent a progression over time".

- The Paris Agreement does not prescribe the exact nature of the NDCs. At a minimum, they should contain mitigation provisions, but they may also contain pledges on adaptation, finance, technology transfer, capacity building and transparency.

- While the NDCs themselves are not binding, the procedures surrounding them are.

- There is **no mechanism to force** a country to set a NDC target by a specific date, nor to meet their targets.
There will be only a ”**name and shame system” (e.g. by the Global Stocktake mechanism).**

Climate Finance



Heinrich Böll Stiftung, 2025

What is next for climate negociations?

- In COP30 in Belém (Nov. 2025), all Parties are expected to submit new or updated NDCs, This will set the 2035 emissions trajectory, crucial to staying within the 1.5 °C target.

- Scaling climate finance from $100 billion per year (unmet) → trillions annually by the 2030s in addition to Loss & Damage Fund implementation (who pays, who benefits?), with finance expected to dominate North–South relations in upcoming COPs.

- Fossil Fuels & the Just Energy Transition: COP28 Dubai agreed on “transitioning away from fossil fuels” — now negotiations will focus on how fast and how fair. Questions ahead: Will there be timelines for phasing out oil, gas, coal? Who funds the transition in Africa, Latin America, South/Southeast Asia?

- With COP30 in the Amazon, deforestation is very important. stronger integration of biodiversity and land-use goals are expected (Paris Agreement and Kunming-Montreal Global Biodiversity Framework).

- Climate negotiations will increasingly mirror **shifts in global power (e.g.** U.S.–China cooperation vs. rivalry, emerging economies (Brazil, India, South Africa, Indonesia) pushing for a stronger voice…etc)

Thank you for your attention

For more information about climate negociations (and more)
https://www.carbonbrief.com (mostly free)
https://www.climatechangenews.com (subscription)

"Don't overthink it—any wish that's not about reversing climate change is pretty pointless anyhow."

Karl Stevens,The New Yorker, 2021