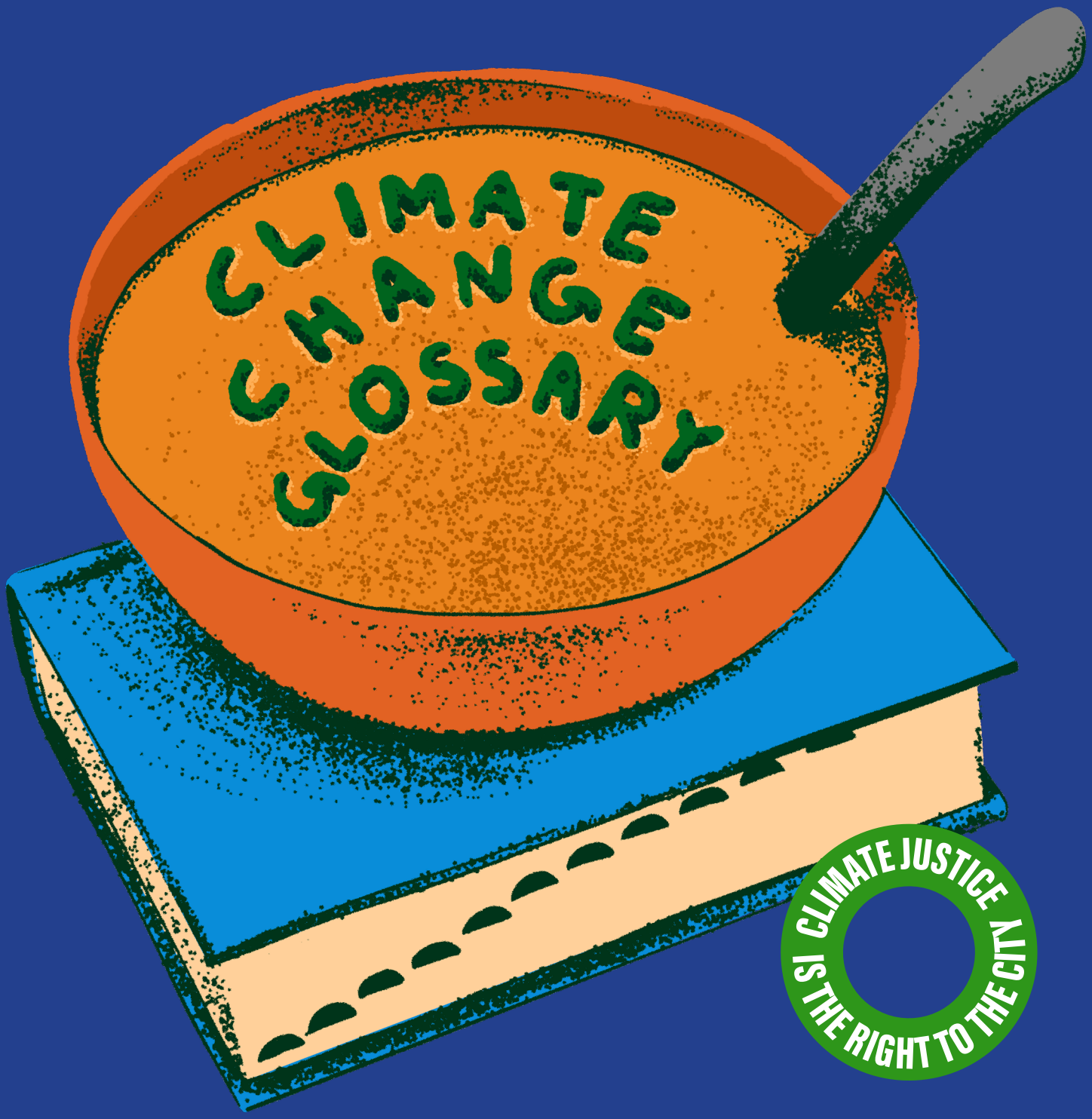


concepts, frameworks and stakeholders decoded through the right to the city

Realização

InstitutoPólis

Apoio

Global Platform for the Right to the City
Plataforma Global por el Derecho a la Ciudad
Plateforme Globale pour le Droit à la Ville

misereor
GEMEINSAM GLOBAL GERECHT

Global Methane Hub

Instituto Pólis

Executive Board (2023-2026)
Cássia Gomes da Silva
Henrique Botelho Frota
Rodrigo Faria G. Iacovini

Communication's Coordination
Bianca Alcântara

Coordinator of the project "Brazil Compost and Cultivate"
Victor Hugo Argentino de Morais Vieira

Global Platform for the Right to the City Support team
Henrique Botelho Frota
Isabel Pascual
Kelly Komatsu Agopyan
Lorena Zárate
Nelson Saule Júnior
Sophia Neitzert

Writing and revision
Kelly Komatsu Agopyan

Illustration
Bruno Dinelli

Graphic design and layout
Julia Pádua

Support
Misereor
Global Methane Hub

2024

Presentation

This document was developed under the scope of the project “Claiming Right to the City, Advancing Climate Justice: Strengthening the Social Movements in Brazil and Globally to Tackle Climate Crisis” carried out by **Instituto Pólis** and supported by **Misereor**. This project is part of a wider international articulated effort with two other **Global Platform for the Right to the City (GPR2C)** member partners: **Kota Kita** (Indonesia) and **Development Workshop** (Angola).

The aim of this Glossary is to provide relevant, systematized and accessible information on climate change concepts, frameworks and stakeholders for GPR2C’s members and allies collective work in **advancing climate justice through a right to the city approach**. In that sense, elements on this glossary were chosen and critically analyzed, mainly, through a territorial and rights-based perspective. We start from the premise that climate change adverse impacts are felt in every city and territory, but not in the same way. Territorial and social inequalities cannot be invisibilized in mitigation and adaptation climate efforts. By mobilizing the right to the city, the project calls attention to territorial and social justice aspects, and also to the importance of community-based participatory process.

The terms in this document have not been listed in alphabetical order on purpose, given the logical order of the document’s organization: the first part is dedicated to “**key concepts” in the discussion on climate change**, and the second to elements of the **global governance of climate change**.

To sum up, this is not an extensive and already finished Glossary, but it aims at providing valuable resources to support the advocacy work carried out by the GPR2C members, allies and other partners in the following years.

This document had valuable inputs from the GPR2C support team members and Platform’s allies and partners, notably Misereor, IIED, WIEGO and Fundación Guatemala.

Summary

Part 1 - Introducing key climate concepts: a critical approach p. 7

Greenhouse Gas Emissions **p. 9**

Global Warming **p. 10**

Climate Change **p. 12**

Climate Change and Cities **p. 14**

Climate Displacements **p. 18**

Climate Change Action **p. 19**

Mitigation p. 21
Adaptation p. 21
Resilience p. 22
Climate Justice p. 25
Climate Justice and Gender p. 26
Climate Justice and Cities p. 26
Environmental Racism p. 27
Human right to a sustainable environment p. 28
Just Transition p. 29
Climate Litigation p. 30

Climate solutions: a skeptical approach **p. 32**

Transformative climate action p. 32
Nature-based solutions p. 33

The "green" wave **p. 35**

Green Gentrification p. 35
Green Growth p. 37
Greenwashing p. 38

Part 2 - Global Governance on Climate Change p. 39

Intergovernmental Panel on Climate Change (IPCC) **p. 42**

United Nations Framework Convention on Climate Change (UNFCCC) **p. 43**

Conference of the Parties (COP) p. 44
The Kyoto Protocol p. 47

Paris Agreement **p. 48**

Nationally Determined Contributions (NDC) p. 50
Urban content of the NDCs p. 50

Climate Finance Framework **p. 53**

Loss and Damage **p. 54**

Loss and Damage Fund p. 56

Market Mechanisms **p. 57**

The case of Brazil p. 58

REDD+ **p. 59**

Global Stocktake **p. 62**

Local and regional governments incidence on global climate governance **p. 64**

C40 Cities p. 64
Local Governments for Sustainability (ICLEI) p. 66
Global Covenant of Mayors for Climate and Energy (GCoM) p. 66

Local Governments and Municipal Authorities (LGMA) Constituency **p. 67**

Cities and Regions Tanaloa Dialogues p. 68
Climate Summit of Local and Regional Leaders p. 68
Local Climate Action Summit p. 68
Coalition for high ambition multilevel partnerships for climate action (CHAMP) p. 69

Academic references p. 70

Other references and resources p. 72

Part 1 - Introducing key climate concepts: a critical approach

This first part of this Glossary is dedicated to “key climate concepts”. Many within the climate field may consider these concepts as “basics” and already part of the general knowledge, since they have been frequently employed by governments’ discourses, international organizations reports, the press and the public opinion.

But the assumption of this “common sense” can lead to misunderstandings, also because reliable information is usually too technical or inaccessible for the great majority of people. The climate “jargons” can be a hindrance to fully understanding the climate risks and ways of effectively addressing them. Related to this, the “green” wave of solutions to climate change will be also analyzed with skepticism, due to its usage often being captured by economic interests.

Thus, in an effort of bringing evidence-based data and reliable information in a more simple way, we hope to clarify some of the doubts around those key, but not at all basic, concepts. Within this effort, we’ll also “localize” some of these concepts to the level of cities and territories.

Greenhouse Gas Emissions

According to the IPCC's 6th Assessment Report (2021), it is unequivocal that, since 1750, the increase of greenhouse gases (GHG) concentrations in the atmosphere - mainly carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O) - is **caused by human activities**.

The **burning of fossil fuels accounts for 75% of global greenhouse gas emissions (GEE)**. This can come mainly from activities in different economic sectors:

Industry: especially manufacturing - which includes large scale and fast fashion industry production -, but also the mining and construction sectors.

Transportation: accounts for ¼ of global energy-related CO2 emissions.

Generating electricity

Cutting down forests: deforestation (for diverse purposes such as clearing land for farming and grazing) releases the CO2 stored by the trees and also reduces the CO2 absorption capacity.

Producing food: food waste [1], livestock digestion, use of fertilizers contribute to both methane and CO2 emissions.

[1] Estimates suggest that 8-10% of global greenhouse gas emissions are associated with food that is not consumed. (UNEP, 2021).

Global Warming

The increase of greenhouse gases in the atmosphere leads to the elevation of the global temperature since those gases absorb and trap more solar radiation, working as a **blanket** to the globe.

Warmer temperatures have wider and interconnected impacts in the whole ecosystem, distorting weather patterns and natural processes, producing long-lasting and profound climate changes.

Climate Change

According to the United Nations:

> *Climate change refers to **long-term shifts in temperatures and weather patterns**. Such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions. But since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas. (our emphasis).*

Although climate change can be a natural earth process, according to the Intergovernmental Panel on Climate Change (IPCC), recent climate change evidence has shown that **this current process is unusual**:

> it is warming almost everywhere in the globe;
>
> it is warming rapidly;
>
> It has been a long time since it has been this warm.

The **scale of changes in the global climate system are unprecedented.** This can be evidenced, for example, by the IPCC's statement that: "*Global surface temperature has increased faster since 1970 than in any other 50-year period over at least the last 2000 years*".

> According to IPCC, since 1850 each of the last 4 decades has been successively warmer than any decade that preceded it.
>
> According to IPCC, global surface temperature was 1.09ºC higher in 2011-2020 than in the 1850-1900 period.

IPCC projections indicate that global warming is expected to reach 1.5ºC between 2030-2052.

Human-induced climate change impacts go beyond the increase of global surface temperature and affect other interconnected climate and weather phenomena, resulting in concurrent extreme effects such as **wildfires, heavy precipitation, flooding, droughts, water scarcity, tropical cyclones, ocean acidification, polar ice melting and sea level increase.**

Climate change effects are felt everywhere, but not in the same way everywhere and by everyone.

Least developed countries that have contributed less to climate change are suffering the most with extreme events, due to their lack of adaptation and recovery resources.

Locally, climate change effects also impact more deeply marginalized groups that are less prepared and more exposed to their adverse consequences: **rural and urban peripheral communities, women, black population, indigenous peoples, coastal populations, etc.**

According to IPCC, poverty is also expected to increase with global warming, since it can affect, por example, food crops.

Climate Change and Cities

Urban centers are also protagonists in what concerns greenhouse gas emissions. According to the UN-Habitat (2022):

> *The urban sector is central for raising ambitions and operationalizing climate action, given **that urbanised areas account for 70% of GHG emissions, use 78% of the world's energy and account for just 2% of the land footprint**. Moreover, cities are also homes to concentrations of people and assets that may be exposed and vulnerable to the impacts of climate change.*

At the same time, urban populations also suffer from climate change adverse impacts, for example, the "**heat island effect**".

According to the IPCC's 6th Assessment Report (2021), **cities are at the hotspot of global warming** mainly due to the combination of **heating accumulation factors** from the built environment and urban activities - such as building density, height and size - and the lack of cooling natural influence - such as vegetation and water.

According to a report "The future we don't want" (UCCRN, 2018) [2], more than 200 million people living in cities around the world are already facing heat waves, which represent 14% of all urban residents globally. Those heat waves mean that there is a 3-month average temperature reaching at least 35ºC.

By 2050, it is estimated that 45% of the urban population will be facing heat waves.

Besides the heat, cities are already suffering from other climate-related hazards:

[2] Elaborated by C40 Cities, the Global Covenant of Mayors for Climate and Energy, the Urban Climate Change Research Network (UCCRN) and Acclimatise.

Heavy rains and consequently landslides and flooding.

According to Gründemann, G.J.; van de Giesen, N.; Brunner, L. et al. (2022), the incidence of what was before considered as more scarce events will increase:

> *By the end of this century, daily land rainfall extremes could increase in magnitude between 10.5% and 28.2% for annual events, and between 13.5% and 38.3% for centennial events, for low and high emission scenarios respectively.*

World Weather Attribution researchers also analyzed the recent unprecedented floods that affected the population of the southern state of Brazil, Rio Grande do Sul, displacing more than half million people from their homes (2024):

> *"Low income has been identified as a significant driver of flood impact. Informal settlements, indigenous villages, and predominantly quilombola (descendants of enslaved Africans) communities have been severely impacted."*

Droughts and consequently water and energy shortages, and food insecurity.

According to World Weather Attribution, a recent study on Eastern Africa has projected that droughts have become about 100 times more likely to happen. This resulted in more than 4.3 million people in need of humanitarian assistance.

Different research carried out in Amazon Basin (2024) and Euphrates and Tigris (2023) basin have shown that human induced climate change has increased the likelihood and intensity of droughts in the regions.

Sea level rise and coastal flooding.

Two of every three coastal residents around the globe are living in cities and towns. (RECKIEN et at, 2018).

According to UNDP, with data from Human Climate Horizons, highly populated cities will face increased flood risk. Many coastal regions of Latin America, Africa and Southeast Asia "may face a severe threat of permanent inundation". Currently, 14 million people living in coastal communities have an annual probability of flooding of 1 in 20, and these flood-prone areas are projected to affect, by the end of the century, around 73 million people.

This study also mentions that, in a worst-case warming scenario, without shoreline defenses, some cities would have the land home of 5% or more of its population permanently below sea level by the end of the century: Newcastle, Sydney and Perth (Australia); Cotonou (Benin); Santos and Rio de Janeiro (Brazil); Barranquilla (Colombia); Guayaquil (Ecuador); Kolkata (India) and Kingston (Jamaica).

Climate change adverse effects in urban areas are also deepened by **structural social and territorial inequalities**. According to the Second Assessment Report of the Urban Climate Change Research Network (2018):

> *Differential vulnerability of urban residents to climate change is driven by four factors: (1) differing levels of physical exposure determined by the location of residential/occupational areas; (2) urban development processes that lead to risks, such as failure to provide access to critical infrastructure and services; (3) social characteristics that influence resources for adaptation; and (4) institutional and governance weaknesses such as ineffective planning and absence of community engagement.*

Although it is fundamental to consider local implications and consequences of climate change, usually local governments do not have **technical and budgetary resources** to deal with climate change mitigation and adaptation by themselves.

The mobilization of more resources for cities and the recognition of the importance of local aspects and actors for climate action have been some of the flagships of the political advocacy of international cities networks such as ICLEI (Local Governments for Sustainability) and C40 (Climate Leadership Group). (See more in the section on the global advocacy of local and regional governments in this Glossary).


THERE IS NO
PLANET B

Climate Displacements

According to the UN High Commissioner for Refugees, 32,6 million people were displaced due to climate-related hazards, in 2022. In addition, it is expected in 2050 that 200 million people will need humanitarian aid due to climate change impacts.

Urban centers are also highly affected by climate change displacements:

> Climate change severe effects are deepened by the lack of adequate housing, culminating in worsening housing conditions or even their permanent harming, generating, in most of the cases, forced displacements and evictions.
>
> The lack of access to affordable housing conditions in safer and more climate-adapted zones also contributes to housing construction in more vulnerable and disaster-prone areas.
>
> This context highlights that **guaranteeing the right for adequate housing is also a climate justice adaptation strategy**. For instance, this perspective has been advocated by social movements struggling against forced evictions that are usually justified by climate-related effects, in Brazil (Zero Eviction Campaign) and in Nigeria (Alliance Against Displacement).

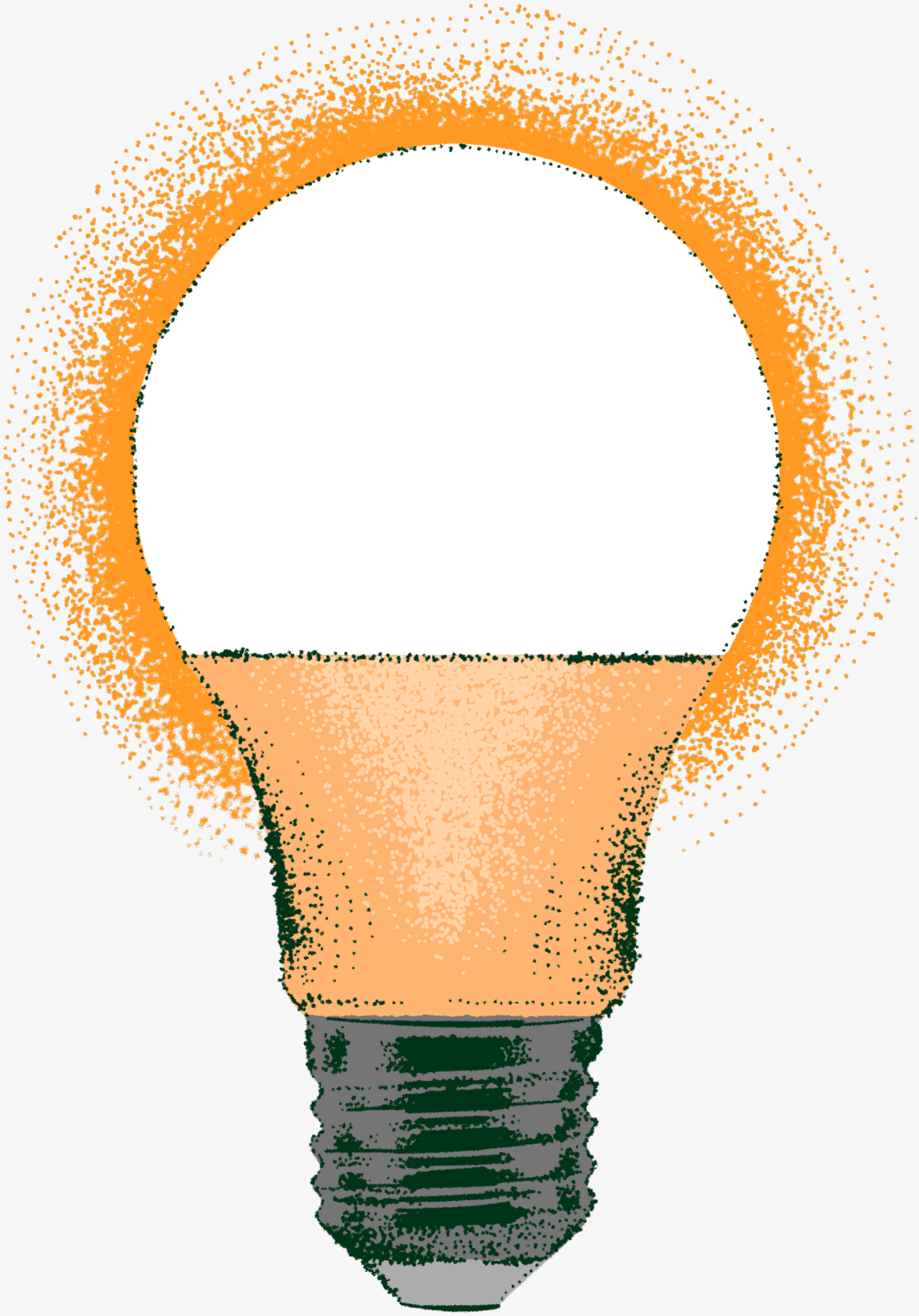
Climate Change Action

Due to this conjuncture, IPCC's 6th assessment report indicates that to avoid irreversible and devastating climate-related effects for natural and human systems, the increase of global surface temperature to be no more than 1.5ºC above pre-industrial levels.

For this goal to be achieved, IPCC's pathway suggests that the **global net anthropogenic CO2 has to decline 45% from 2010 levels by 2030, reaching net zero around 2050**.

Here it is important to highlight the debate around the principle of "**Common but differentiated responsibilities**" recognized by the UNFCCC (1992).

> This principle argues that although all countries have a responsibility to act against climate change, developed industrialized countries, which have historically contributed most to climate change through highly polluting economies, must also lead climate action efforts. Furthermore, special needs of developing countries that are in a situation of greater vulnerability to the effects of climate change must be considered and addressed.



Mitigation

As part of the climate change action, mitigation refers to the **efforts to reduce or prevent greenhouse gas emissions**.

It can be considered as examples of mitigation action (UNDP):

transitioning to renewable energy sources;

adopting low-carbon or carbon free transportation;

employing sustainable agriculture practices;

decarbonising building materials (fostering the use of regenerative/bio-based material practices, circular design tools, building less by prioritizing renovation and upgrading of existing buildings, etc).

restoring forests, etc.

Non-governmental organizations working with waste pickers and urban waste management also call attention to the central contribution for climate change mitigation of **solid waste recycling and composting organic waste**.

> According to Instituto Pólis (Brazil): "When landfilled, organic waste emits methane (CH4), a greenhouse gas (GHG) with an impact 25 times greater than carbon dioxide (CO2)." (2021, p.10, free translation).
>
> Compositing all organic waste from the city of São Paulo (Brazil) - producing organic fertilizing - would have the same impact as removing 80% of the city's automobile's fleet. (POLIS, 2021).

Adaptation

Also part of the climate change action, adaptation measures refer to **actions that help reduce or avoid climate change current and future adverse impacts and potential damages**. According to IPCC (2014) is a "process of adjustment" to climate effects.

It can include different initiatives, according to each context

providing disaster responses capacitation and information to lo-

cal communities;

elaborating communitary adaptation plans;

enhancing early warning systems to disasters;

improving water storage;

promoting - mainly through retrofitting and renovation - a climate change sensitive work and housing infrastructures;

strengthening institutional local capacities to respond to disasters.

Resilience

IPCC's definition on climate resilience (2014) consists on:

> ***The capacity of social, economic, and environmental systems to cope with a hazardous event or trend or disturbance****, responding or reorganizing in ways that maintain their essential function, identity, and structure, while also maintaining the capacity for adaptation, learning, and transformation.*

According to the Climate Resilience Network at the Marrakesh Partnership for Global Climate Action, climate resilience can only be achieved through 3 interdependent outcomes concerning people/livelihoods resilience, business/economy resilience and environmental resilience:

> *Building climate resilience involves all actors (governments, communities and businesses) having the capacity to anticipate climate risks and hazards, absorb shocks and stresses, and reshape and transform development pathways in the longer term.*

According to Sara Mehryar (2022):

> Resilience is often employed interchangeably with adaptation. But while adaptation refers to **action and processes** to adjust to climate effects, resilience refers to the **capacity or ability** to cope and recover from climate effects.
>
> Adaptation can be seen as part of resilience, and taking **adaptation action can both increase or undermine resilience**. This is due, for instance, to costly investments in one adaptation measu-

re that desistimulate the diversification of responses to climate impacts or because the adaptability increase for certain climate events can decrease resilience for other new events.

For Mehryar, adaptation and resilience should be complementary.

Climate Justice

There is no consensus about its definition. It started being employed by black activists and communities across the United States in the 90s, initially connected to environmental impacts of the oil industry (TOKAR, 2019; OBSERVATORIO DO CLIMA, 2022).

According to IPCC (2022), quoting Mary Robinson Foundation For Climate Justice, it is:

> *Justice that links development and human rights to achieve a human-centered approach to addressing climate change, safeguarding the rights of the most vulnerable people and sharing the burdens and benefits of climate change and its impacts equitably and fairly.*

By acknowledging that climate change adverse effects affect vulnerable populations disproportionately, and that vulnerable populations have differentiated resources to adapt to these adverse effects, climate change is algo a social justice issue.

The **Global Platform for the Right to the City (2021)** highlights that some vulnerable groups are affected in greater extent by climate injustices:

Women and Girls

LGBTQIAP+

Homeless

Indigenous populations

Peasants and pastoralists

Coastal populations

Groups undertaking informal jobs

Groups discriminated by ethnic, income, disability or social status.

It is also relevant to highlight that, among those discriminated groups, **migrants and refugees** can be "re-victimized", being forced to migrate again due to (new) climate change adverse effects. (See more in the "Climate Change Displacements" section in this Glossary).

Climate Justice and Gender

Impacts of climate change are different for men and women because of the socially established unequal gender roles. So according to UN Women, "**the climate crisis is not gender neutral**".

Because of the gender roles, women are more attached to domestic and reproductive work, bearing the primary responsibility of cooking and, consequently, fetching water and fuel. In that way, when natural resources are scarce, they suffer even more negative impacts.

According to UN Women, **agriculture** is the "most important employment sector for women in low- and lower-middle income countries", even though women do not have equal access to land, representing only 12.6% of landowners. At the same time, their engagement with agriculture production means that during extreme climate events, they are also directly affected.

Women also have less access to information on climate change and adaptation resources, which increases their vulnerability towards climate change adverse effects. **According to UNDP, 80% of people displaced by climate change are women**.

While women are disproportionately affected by climate change, they are not considered in decision-making on how to mitigate and adapt to climate change, what undermines climate action efforts:

> *Studies show that countries with higher representation of women in congress/parliament are more likely to set aside protected land areas and to ratify multilateral environmental agreements. Similarly, the increased participation of women is crucial to the climate effort – for example, there is evidence that women play a vital role in dealing with disasters by effectively mobilizing communities in the different phases of the risk-management cycle; thus their greater involvement would contribute substantively to disaster risk management and reduction. (UNDP, 2016, p.6).*

Thus promoting gender equality is essential for the effectiveness of climate change efforts.

Climate Justice and Cities

Taking into consideration the territories is essential for elaborating an

effective climate justice strategy since the territorial context is a key variable while analyzing climate vulnerabilities.

There is an effort from the **Global Platform for the Right to the City** (2021) to enhance climate justice discussion through a **right to the city approach**. This means:

Incorporating a local **human rights perspective**;

Emphasizing the **urban-rural connections**;

Claiming for **community-centered and participatory** decision making processes and;

Acknowledging that climate justice relates directly with the **right to adequate housing** and living conditions.

Environmental Racism

The concept of environmental racism emerged directly connected to the concept of environmental justice, based on the perception that environmental injustices would also be connected to the racial issue.

Sanches and Santos (2022), who study environmental inequalities in the city of São Paulo, state that, in a society built on racist and colonizing bases, with marginalized populations not having a dignified life, it is impossible to have a sustainable environment.

According to American professor Robert Bullard and Glenn Johnson (2000, p.560):

> *Environmental racism is as real as the racism found in housing, employment, education, and voting (Bullard, 1993a). Environmental racism refers to any environmental policy, practice, or directive that differentially affects or disadvantages (whether intended or unintended) individuals, groups, or communities based on race or color. Environmental racism is one form of environmental injustice and is reinforced by government, legal, economic, political, and military institutions. Environmental racism combines with public policies and industry practices to provide benefits for Whites while shifting costs to people of color (Bullard, 1993a; Collin, 1992; Colquette & Robertson, 1991; Godsil, 1990).*

According to Conrado, Nazar and Capelobo, **there will be no true climate change if anti-racist thinking is not incorporated into policies**:

> *Peripheral populations experience structural problems caused by the historical racial inequality of our system of exploitation. Climate change intensifies these problems, and can produce other forms of racism, such as the exclusion of these people from accessing measures to mitigate and adapt to impacts, just like the rest of society. A transition that is not anti-racist only perpetuates these inequalities.(2020, p.5, free translation).*

In a study carried out by Instituto Pólis on "environmental racism and socio-environmental justice in cities" (2022), **the distribution of climate consequences in cities occurs unevenly across the territory**, disproportionately burdening peripheral neighborhoods where low-income families reside and black people, indigenous and quilombolas are concentrated. These are also the groups most discriminated against in the application of laws, and the least represented in the development of public policies.

Human right to a sustainable environment

A/RES/76/300: Resolution adopted by 166 countries, at the United Nations General Assembly, on the Human Right to a clean, healthy and sustainable environment (July 2022).

It recalls the UN Human Rights Council previous resolution n. 48/13 of 2021, that recognizes the human right to a sustainable environment and urges for international cooperation.

The resolution 76/300

> *Calls upon States, international organizations, business enterprises and other relevant stakeholders to adopt policies, to enhance international cooperation, strengthen capacity-building and continue to share good practices in order to scale up efforts to ensure a clean, healthy and sustainable environment for all.*

The resolution is not legally binding, which means that member states do not have legal obligation to comply with it, but we can say it provides symbolic legitimacy to demand action from the governments.

Just Transition

According to the ECOSOC's Committee for Development Policy (2023), it refers to:

> *ensuring that no one is left behind or pushed behind in the transition to low-carbon and environmentally sustainable economies and societies, can enable more ambitious climate action and provide an impetus to attaining the Sustainable Development Goals.*

At the global level, negotiations on a just transition comprise the discussion on the provision of resources from developed nations to help **financing the transition** in less developed countries by, for example, advancing cooperation on clean technologies and capacity-building.

According to the United Nations Global Compact, a just transition would require: "a fair process built on **social dialogue, stakeholder engagement** and a universal respect for **fundamental labour rights** and other human rights."

> In that sense, it is fundamental to advance capacity-building initiatives and technology transfer, as well as social protection mechanisms to support workers withstand climate shocks.

A just transition also implies the guarantee of energy justice and the fight against energy poverty.

> For instance, a recent study carried out by Instituto Pólis (2022) highlighted the privation of access and affordability to adequate, modern and efficient energy services in informal settlements in Brazil, due to the lack of proper infrastructure - affecting mainly low income, black communities and women.
>
> The same study also pointed out the **close linkages between energy poverty and food insecurity**. Data from the Brazilian context highlighted that, for low income households, the main usage of electricity is for food storage.
>
> Besides that, it is important to highlight that the high **cost of electricity** is an impediment for its proper access. According to the same study, very low-income Brazilian families spend half or more than half of their monthly income on electricity bills, and among them, 22% say they had to reduce or stop buying essential food to be able to pay for electricity.

In that sense, the study recommends **income transfer programs** for vulnerable groups to access **modern and efficient electricity services** and devices. In addition, a **progressive electricity tariff regime** is also proposed, in order to reduce low-income households' electricity bills expenses.

Climate Litigation

According to the Cambridge Dictionary, litigation is the process of **taking a case to a court of law for judgment**.

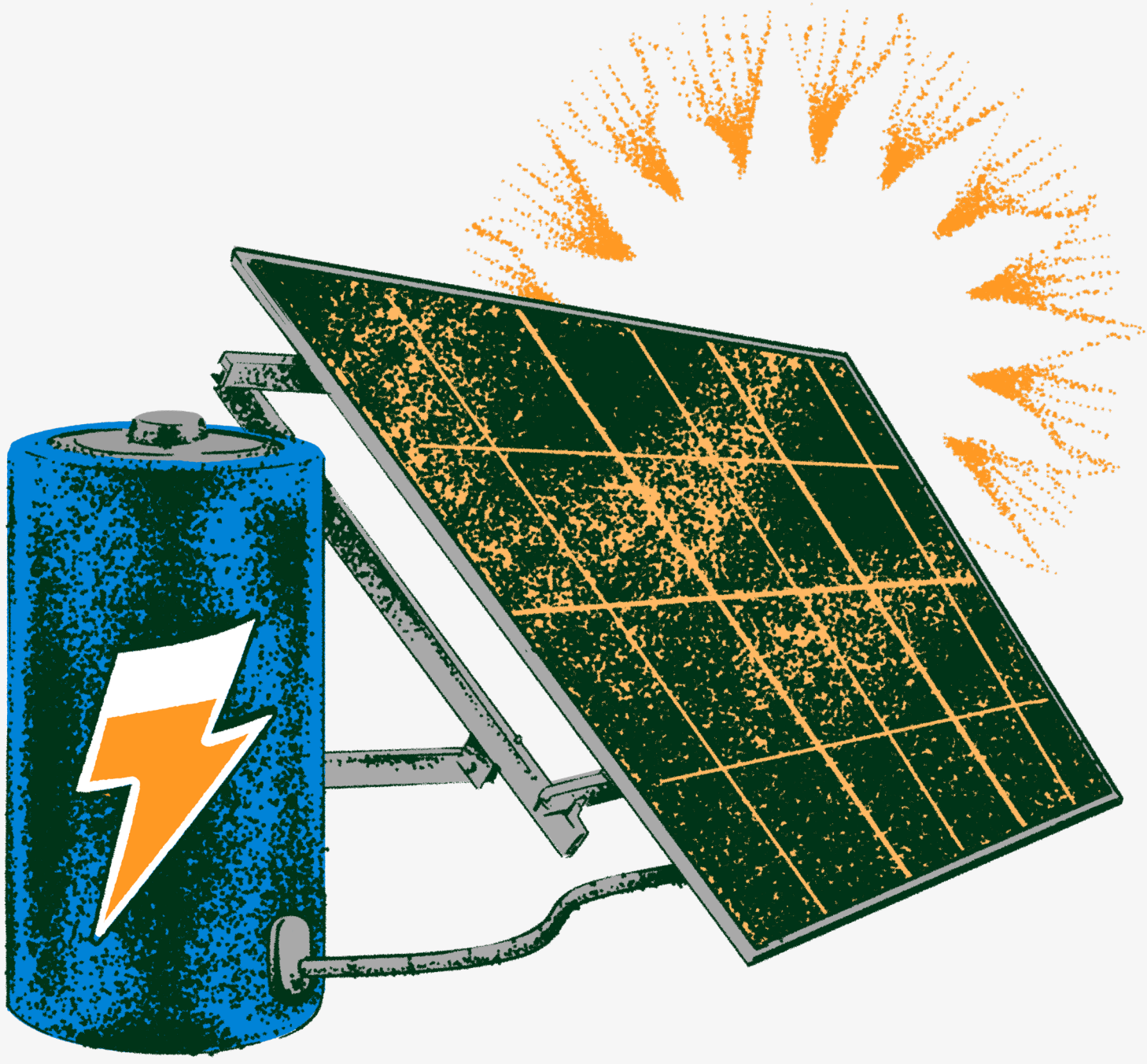
It has been a relevant mechanism employed mainly by civil society organizations and climate and human rights activists to hold governments and the private sector accountable for climate change-related responsibilities and human rights violations. It can be considered as a tool for advancing climate justice.

According to the Global Climate Litigation Report (2023) climate litigation cases more than doubled in 5 years (2017-2022):

> *As of December 2022, there have been 2,180 climate-related cases filed in 65 jurisdictions, including international and regional courts, tribunals, quasi-judicial bodies, or other adjudicatory bodies, such as Special Procedures at the United Nations and arbitration tribunals.*

ESCR-Net (International Network for Economic, Social and Cultural Rights), for instance, has been working actively with strategic climate litigation. It has supported, in 2023, Chile and Colombia's joint advisory opinion request presented before the Inter-American Court of Human Rights, aiming at clarifying the scope of the state obligations for addressing climate change under the frame of international human rights law. According to the ESCR-Net the request compassed questions on the following topics:

> *(1) state obligations derived from preventing and guaranteeing human rights to confront the climate crisis; (2) state obligation to preserve the right to life & access to information vis-à-vis the climate emergency; (3) obligations of the states, under principles of intergenerational equity, to protect the rights of children and future generations from climate change; (4) scope of judicial and administrative procedural obligations; (5) protection of environmental and human rights defenders; and (6) cooperation between states to confront climate change in the region.*



Climate solutions: a skeptical approach

Transformative climate action

Transformative climate action is usually connected to the "transformative change" necessary for achieving the 1.5°C target indicated in the Paris Agreement.

According to IPCC, transformative change means: "A system-wide change that requires more than technological change through consideration of social and economic factors that, with technology, can bring about rapid change at scale." (IPCC, 2018, p.559)

According to the UN Briefing Note (2022):

> *Transformational change is qualitatively figured as different from incremental change or business as usual (BAU) (Feola, 2015), a distinction that is considered necessary for effective climate change adaptation or mitigation (Park et al., 2012; Rickards and Howden, 2012).*

Huxley, Walsh, Oke, et al. (2022) emphasize the urban dimension of transformative climate action. They define it as a "systemic and structural change" that enables **climate urban action at the pace and scale needed**. They affirm it is "a pathway, a dynamic, evolving process, that involves continuous choices, trade-offs, and learning by doing." (2022, p.17).

Nevertheless, transformational climate action should take into account social and economic inequalities and marginalized actors, so that the so-called transformative actions do not deepen or reproduce those inequalities for the sake of the need for a rapid change:

> *[...] the discourse of urgency and emergency tends to lead to a focus on big change—chasing technocratic solutions over more holistic approaches, and reinforcing existing structures of leadership and dominance (Westman & Castán-Broto, 2022). (Huxley, Walsh, Oke, et al., 2022, p.16).*

Some authors also emphasize that the "transformative" discourse can act as an "**empty signifier**", reproducing, instead, dominant and mainstreaming values. (Westman & Broto, 2022, p.1336):

> *[the concept of "transformations"] accommodates different demands into hegemonic discourses rather than challenging them and producing alternatives. Back to Laclau's (2005) ideas of hegemonic imposition, urban transformations discourse effectively articulates new links around radical demands for societal change, gradually obscuring a plurality of struggles in favour of cemented ideas and interests.*

Nature-based solutions

Considered as an umbrella term, it was coined in 2009 by the World Bank and the International Union for Conservation of Nature (IUCN).

The IUCN defines it as: "actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature."

The solutions can comprise, for instance, protecting and restoring coral reefs and forests.

According to the **World Bank** catalog, the nature-based solutions for **urban application** can comprise urban farming, open green spaces and corridors, terraces and slopes, river and stream renaturation, among others. At the neighborhood scale, the organization indicates the nature-based solutions integrated into buildings, such as green roofs and façades, rainwater retention ponds and bioswales.

However, while nature-based solutions can make significant contributions to tackling the adverse effects of climate change and socio-environmental challenges, they are also analyzed with a certain degree of **skepticism** (Fukui, 2023).

Some researchers in Brazil argue that those solutions are still unequally implemented, benefiting only an insufficient part of the population. Usually, vulnerable populations living in peripheral urban areas and/or small cities do not have access to this kind of solution.

Experts also warn that unequal implementation of nature-based solutions can also culminate in the "**green gentrification**" and "**green privilege**" processes, due to the valorization of areas that receive green interventions.

The “green” wave

Green Gentrification

According to CREATE Initiative of the Minnesota University, green gentrification:

> *[...] is the process by which environmental investments, sustainability programs, and green rhetoric contribute to growth in property values, higher rents, and other financial pressures. What results can be a mix of new wealthier residents and businesses that cater to their tastes, while lower-income, longer-term residents face rising costs of living, vanishing community institutions, and physical displacement. (Klein et al, 2020, p.7).*

An example of green gentrification brought by experts is the **“High Line” in New York City (USA)**.

> Since its inauguration, in 2009, the elevated 1.45-mile-long public linear park had its surroundings drastically changed and real estate values adjacent to the park significantly increased. That is why green gentrification is also called “The High Line Effect”. (Klein et al, 2020).

Green Growth

The notion of "Green growth" has been presented in international organizations' discourses - notably the Organization for Economic Cooperation and Development (OECD), the World Bank and the UN Industrial Development Organization (UNIDO) - and in national policies. It is based on the idea that:

> *Green Growth thus presents an alternative to the conventional economic paradigm of resource exploitation and is built around a concept of growth that integrates concepts such as the sustainable use of natural resources including greater energy and resource efficiency and improved natural capital as a driver of growth. (UNIDO, 2013, p.31).*

According to UNIDO (2013, p.15) green growth needs to combine different policies that should stimulate "economic growth, competitiveness, employment and environmental improvements". Besides, resource-efficiency would also improve the population's quality of life.

According to OECD, green growth is a "subset of sustainable development" fostering "new sources of economic growth that are consistent with resilient ecosystems." (OCDE, 2015, p.5).

But there is also great **skepticism** about this notion of green growth, since critics say it "asserts that continued economic expansion (as measured by Gross Domestic Product, or GDP) is or can be made to be compatible with our planet's ecology." (Hickel & Kallis, 2019, p.2).

> The critics say it is not possible to "decouple" GDP growth from resource use and carbon emissions, as green growth advocates seem to affirm.
>
> Finally, critics say there's political motivation to defend this notion of green growth:
>
> > *It seems likely that the insistence on green growth is politically motivated. The assumption is that it is not politically acceptable to question economic growth and that no nation would voluntary limit growth in the name of the climate or environment; therefore green growth must be true, since the alternative is disaster. (Hickel & Kallis, 2019, p.15).*

In opposition to green growth theory, others advocate for the "**post-growth**" paradigm. They "argue that the pursuit of infinite economic

growth is incompatible with planetary boundaries and that alternative economic models are needed to achieve long-term sustainability and well-being" (King; Savin and Drews, 2023, p.2).

Greenwashing

The term was first coined in 1986 by environmentalist Jay Westervelt, addressing the practice of towel reuse in the hospitality sector (De Freitas Netto, et al. 2020).

There is no consensus on a definition of this phenomenon, since it has been studied by different fields of knowledge: Social Sciences, Communication, Economy, Business, Environmental Management, etc. (De Freitas Netto et al., 2020).

It usually refers to deceptive tactics and false claims of sustainability alleged by companies and entities, usually connected to weak green house gas emissions net-zero pledges, aiming to **improve their reputation/image towards consumers**.

> According to De Jong, Harkink, & Barth (2018) the phenomenon has two main features: the distance from truthfulness and the use of communication techniques to mislead or confuse people.

According to the UN, it can include:

> Claiming to be a net-zero company without a credible plan for net-zero emissions;
>
> Applying "eco-friendly" labels with no standard and transparent definitions;
>
> Communicating sustainable attributes of the company products;
>
> Omitting other brand non-sustainable activities, etc.

Part 2 - Global Governance on Climate Change

Due to the present global and urgent climate conjuncture, a global governance on climate change was established. According to the International Relations literature, global governance is a process whereby **actors cooperate to achieve common goals** (Harris, 2011). For that, actors set norms and rules processes and compliance monitoring **to regulate other actors' behavior**. (Brühl & Rittberger, 2002).

Climate governance, for instance, "has been characterized by a historically unprecedented amount of negotiation among governments, leading to a collection of international agreements [...]". (Harris, 2011). Besides interactions between national governments, the researcher also emphasizes that other measures have been carried out in other governance levels, involving other stakeholders: non-governmental organizations, local and regional governments, business and individuals. Concerning this, although important improvements were achieved in terms of integrating and acknowledging those "non-traditional" International Relations actors and their contributions to the climate global governance processes, there is still a participatory gap to be overcome, mostly for civil society organizations and activists.

So, **global governance on climate change comprise diverse agreements, international organizations, guiding frameworks, monitoring mechanisms, funds, laws, networks**, and other resources, established by and for different stakeholders (governments, civil society organizations, academics, businesses, local authorities, etc) to discuss, find collective solutions to climate change causes and effects, and negotiate commitments to advance climate change action. Those mechanisms will be better addressed in this session, which tries to synthesize their main outcomes and challenges.

As it will be verified, this session will be mainly focused on the global governance processes carried out within the **United Nations (UN) System**, which is still the most "universalist" and recognized international organization, even though its obsolete structure and operation mode can be critically analyzed. Thus, this does not mean that climate governance processes are not being realized in other organizations and instances.

Finally, it is also important to mention that one of the main challenges of climate global governance is related to **compliance** to its approved commitments, and the lack of mechanisms to hold not only states, but other stakeholders accountable for not fulfilling the established rules. Some authors suggest that climate global governance scholarship was at the forefront in discussions on effectiveness of these international norms and rules. At the same time, they suggest that climate governance is currently too complex to measure in terms of its effectiveness, and that we should, instead, analyze its **"influence" pathways** translated both in international and domestic effects. (Bernstein & Cashore, 2012).

Intergovernmental Panel on Climate Change (IPCC)

Created in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP).

It is the United Nations body responsible for assessing scientific information on climate change to support governments to develop climate policies as well as the international climate negotiations.

The organization's expert volunteers are selected among those nominated by governments and observer organizations (that can be non-governmental organizations), considering regional and gender balance. The experts have the task of elaborating periodical assessment reports based on the climate scientific information produced worldwide.

The current **6th Assessment Report** was elaborated during a 8-year cycle period (2015-2023).

United Nations Framework Convention on Climate Change (UNFCCC)

The convention was adopted at the UN headquarters in New York in 1992, and entered into force in 1994. Up to now **198 countries have already ratified it** [3], which means that practically all UN member states are parties to the convention.

Objective: "**stabilization of greenhouse gas concentrations** in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

It acknowledges "**common but differentiated responsibilities**" among countries, notably, the specific needs of developing countries suffering from the adverse effects of climate change.

Industrialized countries agreed, under the convention, to **provide financial support** for action on climate change in developing countries.

[3] Here it is important to clarify that signing a treaty/agreement is different from ratifying it. Signing shows that the country is interested in discussing the issue proposed by the agreement in its domestic context, but has not yet formally committed itself to complying with its guidelines. Ratification, on the other hand, would be the formal binding of the country to the agreement, which would then be considered a "state party" to it and would have to account for its compliance. In Brazil, for instance, the ratification process involves discussion of the agreement and its approval by the National Congress.

Conference of the Parties (COP)

It is the supreme decision-making body of the Convention on Climate Change (UNFCCC).

It reunites every year, and all state-parties to the convention are represented.

It aims at reviewing and fostering the implementation of UNFCCC - including reviewing emission inventories submitted by state parties.

The COP also serves as a meeting to the parties of the Kyoto Protocol and the Paris Agreement.

Some highlights of the previous COPs:

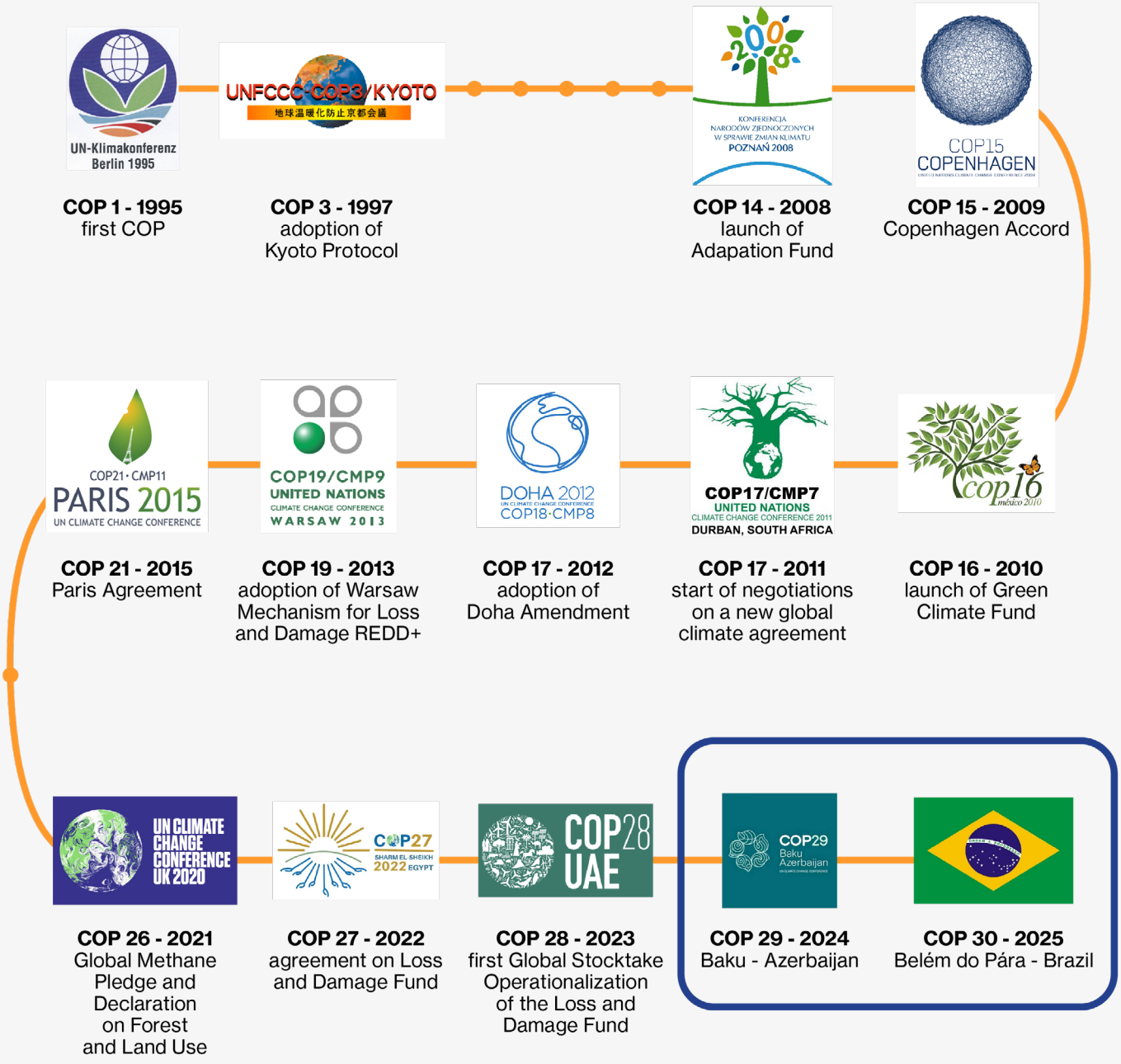
COP edition	Year	Place	Highlights
1	1995	Berlin (Germany)	The **first COP** highlighted the need for strengthening commitments for developed countries in order to achieve the Convention's objectives.
3	1997	Kyoto (Japan)	Adoption of the **Kyoto Protocol**, the first treaty on greenhouse emissions reduction. But the treaty entered into force only in 2005 due to political and operational hindrances.
14	2008	Poznan (Russia)	Launch of the **Adaptation Fund** (under the Kyoto Protocol), an important financing mechanism for developing countries.
15	2009	Copenhagen (Denmark)	The **Copenhagen Accord** acknowledges the importance of taking into account the "scientific view" that the global temperature increase should be below 2ºC. It also committed developed countries to mobilize "jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries"
16	2010	Cancun (Mexico)	Establishment of the **Green Climate Fund**.

COP edition	Year	Place	Highlights
17	2011	Durban (South Africa)	Parties commit to a **new universal climate change agreement by 2015** for the period beyond 2020, which would culminate in the Paris Agreement.
18	2012	Doha (Qatar)	Adoption of the **Doha Amendment** establishing a second commitment period for the Kyoto Protocol, 2013-2020.
19	2013	Warsaw (Poland)	Establishment of **Warsaw International Mechanism for Loss and Damage**. Adoption of **Warsaw's Framework for REDD+**.
21	2015	Paris (France)	Adoption of the **Paris Agreement**, a legally binding treaty [4] to address global climate change, updating the guidelines established by the UNFCCC, by pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.
26	2021	Glasgow (Scotland)	Launch of **Global Methane Pledge** by the European Union and the United States to mobilize voluntary actions from countries to reduce methane global emissions at least 30% from 2020 levels by 2030. **Glasgow Leaders' Declaration on Forests and Land Use** mobilized around 140 leaders to commit to end forests' loss and degradation until 2030, considering its importance in preventing global warming.
27	2022	Sharm el-Sheikh (Egypt)	Agreement on the establishment of a **Loss and Damage Fund.**
28	**2023**	**Dubai (United Arab Emirates)**	The Loss and Damage Fund is operationalized. Adoption of the commitments based on the first **Global Stocktake**, an assessment on the collective achievement of the Paris Agreement long-term goals. For the first time, it recognizes the need for "transitioning away from fossil fuels in energy systems". Declaration on Sustainable Agriculture, including the debate on food systems in the COP's agenda.

Elaborated by the author, 2024

[4] According to the UN Treaty Collection, a binding instrument "means that the contracting parties intended to create legal rights and duties".

COP's timeline highlights



Elaborated by the author, 2024

The Kyoto Protocol

Adopted in 1997 as a protocol to the UNFCCC [5], it is considered a milestone at the global climate debate because it established binding commitments on GHG emissions reductions to **37 industrialized countries** and in transition economies.

Those commitments, translated into varied targets, when combined, aimed at reaching a **5% decrease in global emissions compared to 1990 levels**, over a five-year period (2008-2012).

Nevertheless, the protocol only entered into force in 2005, due to low nations' accession through the ratification process, resulting in slowness in achieving the minimum of parties required for its formal validation. It is relevant to mention that the **United States, a highly polluting country, never ratified the protocol** and, in 2001, the Bush administration withdrew its signature from the treaty.

The Kyoto protocol also launched the **emissions market mechanisms** to help industrialized parties achieve their reduction targets while also supporting developing countries, following the rationale "It does not matter where emissions are reduced, as long as they are removed from the atmosphere." The mechanism is, however, the subject of many debates and disagreements between environmentalists and the private sector over this "pricing of the right to pollute". (See more in the "Market Mechanisms" section of this Glossary).

In 2012, the **Doha Amendment** to the Kyoto Protocol was adopted at COP 18 in Qatar, establishing new commitments: reduction of GHG emissions by at least 18% below 1990 levels, over a eight-year period (2013-2020) to an updated composition of parties, although still focused on the most industrialized ones. Once again, due to slowness in ratification, the amendment only entered into force in 2020.

[5] It is important to clarify here that, although its content is linked to the Framework Convention, countries wishing to be bound by the protocol and its commitments had to proceed with a new ratification, specific to this protocol. This is why not all state-parties to the UNFCCC are also parties to the protocol.

Paris Agreement

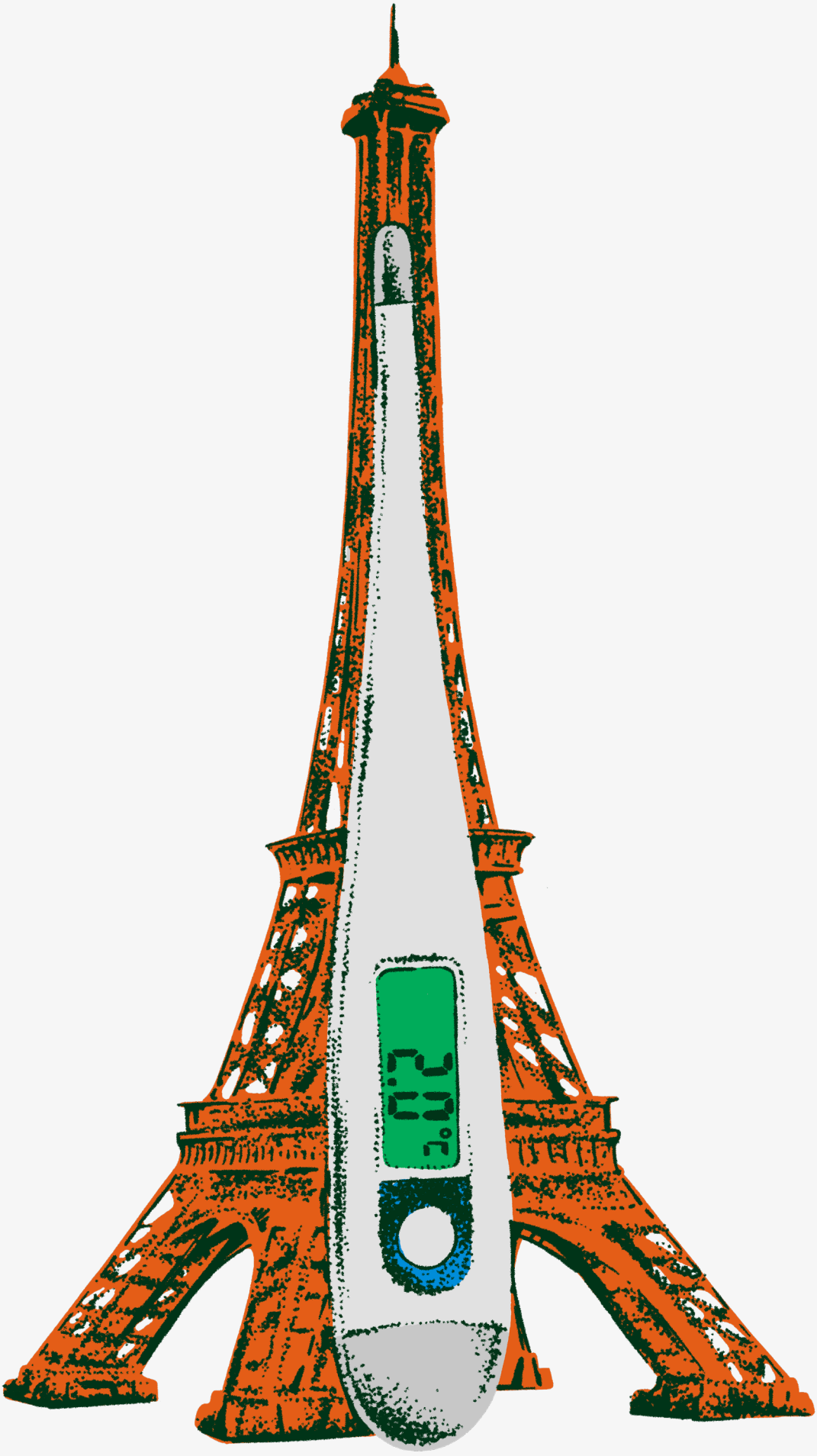
Adopted by 196 parties at COP 21, in Paris (France) in 2015.

Although it is connected to UNFCCC, it is an **autonomous legally binding treaty** that updates the global governance on climate change, aiming at:

> *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.*

The parties to the treaty are now bound to elaborate the **Nationally Determined Contributions (NDC):** a set of targets established by national governments to mitigate greenhouse emissions and adapt to climate change effects.

The Agreement also reaffirms the financial obligations of developed countries in providing resources to developing countries for mitigation and adaptation efforts.


21.0°C

Nationally Determined Contributions (NDC)

Established by the article 4 of Paris Agreement, it previews that:

> *Each Party shall* **prepare, communicate and maintain** *successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.*

NDCs should be updated by Paris Agreement parties at least every 5 years, pursuing more ambitious targets, and submitted to the UNFCCC secretariat, starting in 2020. NDCs can be updated by parties at any time.

NDC's mandatory aspect replaced the **Intended Nationally Determined Contributions**, established in 2013, as an anticipated intended non-binding commitment of emission reductions post-2020, publicly announced by UNFCCC parties before the Paris Agreement.

All parties' NDCs are publicly available at the UNFCC's website.

Brazil's NDC (adjusted in 2023)

GGE target reduction in 2025: 48.4% in comparison with 2005 [6] - the first target was of 37% reduction (2020).

GGE target reduction in 2030: 53.1% in comparison with 2005 - the first target was of 43% reduction (2020).

[6] 2005 is the base-year for the Greenhouse Gas Emissions Inventory in Brazil.

Urban content of the NDCs

Urban GHG emissions reduction contributes significantly to the Nationally Determined Contributions:

> *Including urban content and human settlements in NDCs presents an opportunity to enhance ambition and implementation through strengthening collaboration across all levels of government and engaging with multi-sectoral stakeholders in decision making to achieve both mitigation and adaptation objectives. (UN-Habitat, 2020, p.15).*

The main challenge is to, **by applying the urban lenses, identify concrete practices for integrating the human settlements in NDCs** (UN-Habitat, 2020).

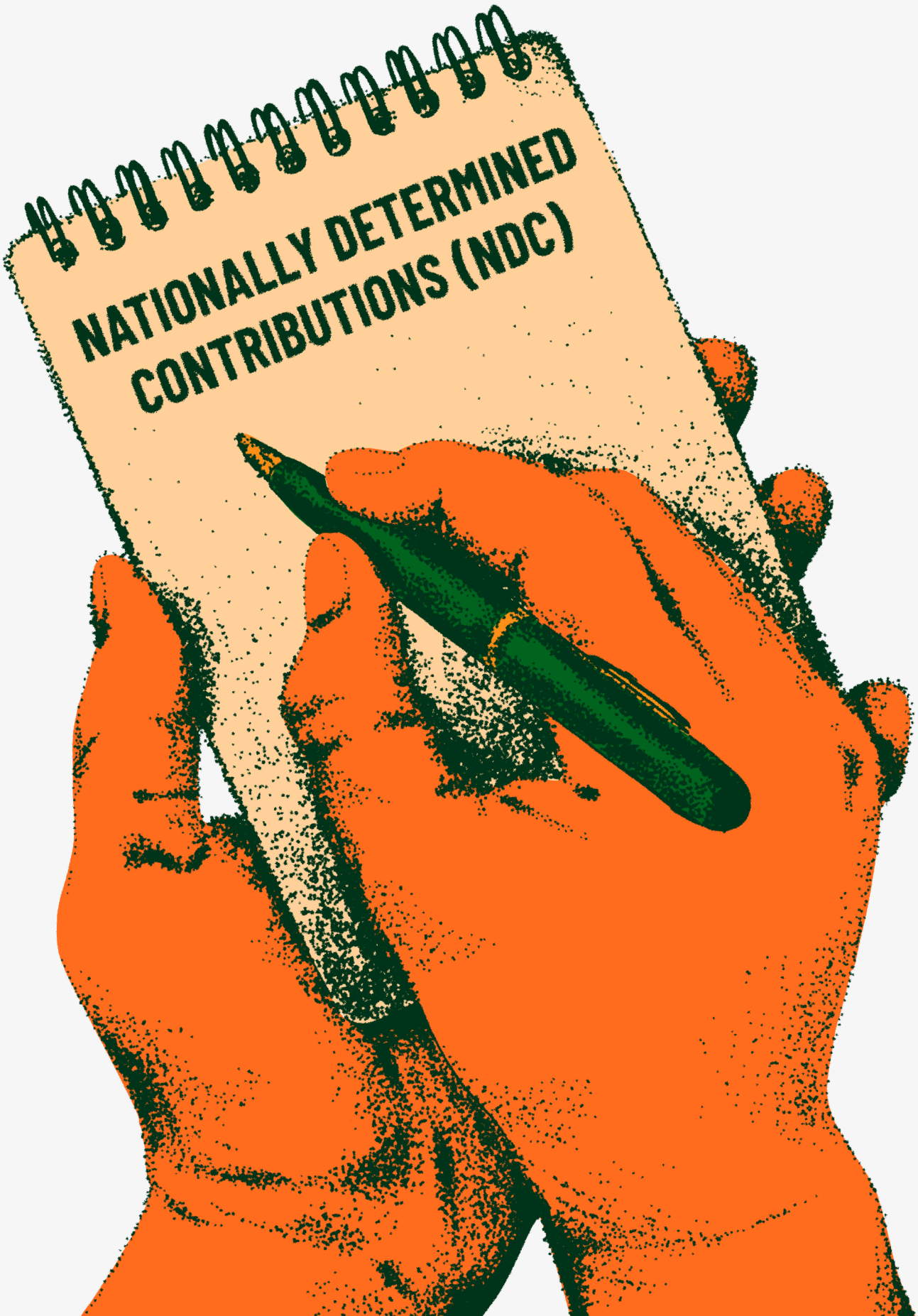
Besides engaging urban stakeholders, NDCs processes should be institutionalized and transparent.

UN-Habitat also emphasizes the need for properly "capturing city level actions" in NDCs in terms of "accounting, transparency, and recognition" (2020, p.29), both in what concerns already existing policies and for new ones.

According to UN-Habitat analysis, in 2022, on the urban content of the state-parties NDCs, 64% of the 193 received NDCs had a "strong" (explicit urban mentions / urban sector identified as a priority) or "moderate" (generic urban mentions - Brazil here included) urban content. Two--thirds among those NDCs with urban content focused both in mitigation and adaptation:

> Most cited sectors of urban mitigation challenges and responses: **energy, transport and mobility.**
>
> Most cited sectors of urban adaptation challenges and responses: **infrastructure and water.**

In COP 28, held in 2023, it was launched the **Coalition for High Ambition Multilevel Partnerships (CHAMP)**, a collaboration among national and local governments to advance climate action planning and enhance the urban content in the NDCs. (See more in the CHAMP section in this Glossary).


NATIONALLY DETERMINED
CONTRIBUTIONS (NDC)

Climate Finance Framework

Different funds were established after UNFCCC commitments, also serving the Kyoto Protocol and the Paris Agreement:

Global Environmental Facility (GEF) - operating entity that manages two special funds:

Special Climate Change Fund: supports adaptation and technology transfer in all developing countries that are parties to the UNFCCC.

Least Developed Countries Fund: created to assist least developed countries in national adaptation programmes of action.

Green Climate Fund (GCF) - created in 2010 as a financial mechanism for developing countries under the UNFCCC, mobilizes resources to support emission reduction and climate resilience programmes in these same countries.

Adaptation Fund (AF) - established to finance adaptation projects and programs in developing countries that are part of the Kyoto Protocol.

The funds' resources come from different sources, mostly donations from the state parties themselves, but also from sub national entities, private organizations and entities and even individuals.

Loss and Damage

According to UNEP "**Loss and damage refers to the negative effects of climate change that occur despite mitigation and adaptation efforts**" considered as "unavoidable" and "irreversible" impacts. This could comprise both economic (and more quantifiable) and non economic losses and damages, the latter, caused by, for example, forced migration and displacement.

The discussion around this topic is not new at global climate governance. At the UNFCCC elaboration in the 90s, the Alliance of Small Island States proposed the creation of an international climate fund to support those developing countries coping with climate change effects, mainly sea level rise. But the proposal was rejected and not included at the Convention.

Decades later, the **Warsaw International Mechanism for Loss and Damage** was established at COP 19, in Warsaw (Poland), in 2013:

> *to address loss and damage associated with the impacts of climate change, including extreme events and slow onset events, in developing countries that are particularly vulnerable to the adverse effects of climate change.*

The mechanism aims at enhancing knowledge on risk management, providing technical support and capacity-building on loss and damage, and facilitating articulation among key stakeholders to promote cooperation on this matter.

Although acknowledging the importance of addressing loss and damage associated with climate change effects, the Paris Agreement (2015) did not mention any financial support on this topic.

Loss and Damage Fund

At COP 27, countries finally agreed to establish a Loss and Damage Fund to provide financial support to vulnerable countries affected by climate change.

The fund was operationalized at COP 28 (2023). The scope of the fund includes:

> *[...] finance for addressing a variety of challenges associated with the adverse effects of climate change, such as climate-related emergencies, sea level rise, displacement, relocation, migration, insufficient climate information and data, and the need for climate-resilient reconstruction and recovery.*

The **World Bank** was invited to operationalize and host the fund as a **financial intermediary fund, for an interim period of four years**. Developing countries were opposed to this measure, aiming at a more independent structure, since the World Bank is seen as very connected to the US / Global North interests. The text adopted indicated that the fund will be managed by an independent Board conferred with legal personality and with a balanced regional composition.

The fund will receive contributions from private and public donors. During COP 28, initial commitments to the fund amounted to around **USD 700 million**, which is still far from what is needed, so the success of the fund will also depend on its financing.

The fund will provide direct support mainly for strengthening **national** responses and initiatives on loss and damage. Nevertheless, it also previewed the modality of providing small grants to subnational governments, and local vulnerable communities, such as Indigenous Peoples, but the criteria and conditions to access the resources still have to be better clarified by the Board.

In addition, the fund secretariat will:

> *Establish modalities that allow recipients to use implementing entities, including international, regional, national and local entities, as appropriate, on the basis of functional equivalency with World Bank safeguards and standards.*

Market Mechanisms

The Kyoto Protocol created “market mechanisms” for helping parties to achieve greenhouse gas emissions reduction targets. In that way, GHG have become a commodity - measured by units of CO2 tonnes - that can be sold by those who polluted less and bought by those who exceeded their emissions permit - in carbon markets.

There are two other types of carbon units that can be generated under the regulation of the Kyoto’s protocol: through a **joint implementation project** among developed protocol-party countries or by **a clean development project** in a developing country.

There are two types of carbon markets: **compliance and voluntary**.

> The compliance market is enhanced by national or international obligations and regulated by an unified criteria, such as the Kyoto Protocol.
>
> The voluntary market is based on voluntary carbon commitments and regulated by different organizations, with different criteria. In this market it is possible to generate carbon credits through investments in renewable energy sources, waste disposal projects, reforestation initiatives and forest conservation.
>
> According to Marcelo Roubicek (2023), forest conservation is usually not accepted in the compliance market to carbon credit grants since not all protected areas are effectively threatened by deforestation.

The case of Brazil

In December 2023, the Brazilian Deputies Chamber passed a law project that regulates the carbon market in Brazil, creating the **Brazilian Greenhouse Gas Emissions Trading System (SBCE)**. The law project now has to be approved at the Federal Senate.

SBCE foresees that:

> All activities that generate over 10.000 tonnes of CO2 per year must be regulated according to this legislation.
>
> The generation of carbon credits can be through restoration, maintenance and conservation of permanent preservation areas, or agrarian reform settlement projects, among others.

Nevertheless, agriculture and farming activities were excluded from the adopted regulation due to political pressures of the Congress "ruralist caucus".

REDD+

It stands for "**Reducing emissions from deforestation and forest degradation in developing countries**". The "**+**" stands for other related-forest activities, such as sustainable management of forests and enhancement of forest carbon stocks.

It is a global framework that encourages developing countries to forest conservation as a way to contribute to climate action, established during COP 19, in 2013, in Warsaw.

It comprises five main activities:

Reducing emissions from deforestation

Reducing emissions from forest degradation

Conservation of forest carbon stocks

Sustainable management of forests

Enhancement of forest carbon stocks

Developing countries can **voluntarily** commit to REDD+, by establishing a national action plan and monitoring system. The positive results achieved by deforestation reduction are reported and verified by the REDD+ information hub, and the country becomes eligible to receive **results-based payments as an incentive** for its efforts.

Several NDCs - as it is the case of Brazil - also mention REDD+ activities as part of their efforts to reduce deforestation and achieve emissions reduction targets.

Nevertheless, REDD+ mechanism is also very controversial, especially because it is a financial incentive tied to nature preservation. According to Heinrich Böll Stiftung dossier on the "New Economy of Nature", REDD+:

> It is not effectively helping reduce national forest deforestation rates and carbon emissions.
>
> It lacks a more consistent measurement of the reduction of deforestation for properly justifying the results-based payment from the climate funds.
>
> Private-sector REDD projects can generate secondary negative effects related to deepening conflicts on land use and tenure and other connected violations of human rights.

Global Stocktake

Established in the Paris Agreement, article 14.

It can be synthesized as global inventory on climate change: "is a process for countries and stakeholders to see where they're collectively making progress towards meeting the goals of the Paris Climate Change Agreement – and where they're not."

It takes place every 5 years, and the first one was concluded at COP 28, in 2023.

It has three main components:

1. **Information collection and preparation** on the following topics: the state of GHG emissions; the state of adaptation efforts; the overall effect of NDCs; finance flows, means of implementation and support, and mobilization and provision of support.

2. **Technical assessment** elaborated from the information collection, IPCC reports and technical dialogues.

3. **Consideration of outputs (political component)**: "focusing on discussing the implications of the findings of the technical assessment with a view to achieving the outcome of informing Parties in updating and enhancing, in a nationally determined manner, their actions and support, in accordance with relevant provisions of the Paris Agreement."

   The synthesis of the consideration of outputs should be afterwards referenced in a high-level decision/declaration.

The first global stocktake, in an unprecedented way, formally acknowledged the need for: "**Transitioning away from fossil fuels in energy systems**, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science".

The global stocktake assessment will also help inform the next round of the **Nationally Determined Contributions**, to be put forward by 2025.

Local and regional governments incidence on global climate governance

C40 Cities

Founded in 2005 by representatives from 20 **megacities**. One year later, they invited more cities to join the network, perceiving a balanced composition among representatives from the Global North and the Global South. **Nowadays it reunites nearly 100 cities**.

It aims at raising up climate ambition and climate action, facilitating climate finance and advocating at the international level, building a global movement of cities.

It is a more restricted network and cities must meet a series of **requirements** to be a member, including being a climate leadership by adopting a resilient and inclusive climate action plan in line with the objectives of the Paris Agreement.

Smeds (2019) highlights the pertinence to "unpack the politics of C40" to better understand the different power influences among member cities within the network and also between the network and its donors (for example Bloomberg Philanthropies).

Related to this, it is also worth it to better analyze the modus operandi of the network, focusing on private financing for cities: "Current C40 initiatives focus on cities financing climate action through debt and private investment for 'bankable' infrastructure projects, rather than lobbying for national government spending." (Smeds, 2019, p.721).

Local Governments for Sustainability (ICLEI)

Global network of local and regional governments committed to promoting sustainable urban development.

It is a more open network, less strict than C40 in terms of membership requirements. It works in 125 countries, with more than 2.500 local and regional governments. The large number of members also imposes the challenge of governance, and questions need to be asked about the power relations within the network

It is formally accredited as an observer in the UN Framework Convention on Climate Change (UNFCCC), the UN Convention on Biodiversity (CBD) and the UN Convention to Combat Desertification (UNCCD).

It is a founding partner of the Global Covenant of Mayors for Climate and Energy (GCoM) and focal point of the Local Governments and Municipal Authorities (LGMA) constituency to the UNFCCC.

Global Covenant of Mayors for Climate and Energy (GCoM)

It brings together the Compact of Mayors - city officials pledge to reduce GHG emissions - and the European Union's Covenant of Mayors - initiative of local governments supported by the European Commission to commit to the European Union climate and energy objectives.

It is a global network of local and regional governments aiming at **advancing city level transition to low-emission and resilient economies**.

Its work is based mainly on capacity building and technical assistance, advocacy, innovation, data production and resource mobilization.

It receives financing from the European Commission and Bloomberg Philanthropies.

Local Governments and Municipal Authorities (LGMA) Constituency

It is the **official channel of cities and regions participation in UNFCCC** since the first COP.

It has 45 accredited networks of local and regional governments, among which UCLG, C40, ICLEI, Eurocities, Global Covenant of Mayors for Climate and Energy, Frente Nacional de Prefeitos (Brazil), among others. **ICLEI works as its focal point towards the UNFCCC secretariat**.

The Paris Agreement acknowledges adaptation challenges faced by local levels (article 7) and that taking action to address climate change should consider the rights of local communities (preamble). Besides, it affirms capacity-building efforts should also strengthen local capacities to respond to climate change (article 11).

LGMA elaborated a statement on COP 28 outcomes welcoming the "unprecedented" inclusion of local and regional governments in the conference proceedings, emphasizing that "Multilevel action and cooperation is at the heart of the response to the climate emergency".

Cities and Regions Tanaloa Dialogues

It is part of the **Tanaloa Dialogue**, launched in COP 23, in 2017, that aims at fostering a collaborative process among all levels of government to strengthen climate action globally.

It consisted of one year-long dialogues (in 2018) among multistakeholders, working as an initial stocktake exercise for NDCs submissions.

According to the UNFCCC explanation: “Talanoa is a traditional word used in Fiji and across the Pacific to reflect a process of inclusive, participatory and transparent dialogue”.

Cities and Regions Talanoa Dialogues were launched at the 9th World Urban Forum in Kuala Lumpur (2018) by ICLEI with collaboration of the Global Covenant of Mayors for Climate and Energy and UN-Habitat.

Throughout 2018, Cities and Regions Tanaloa Dialogues were convened in 60 events in 40 countries.

Climate Summit of Local and Regional Leaders

The first was convened during COP 21, in 2015, in France, by Paris Mayor Anne Hidalgo and Mike Bloomberg, UN Secretary-General's Special Envoy for Cities and Climate Change at that time.

Another similar event was held during COP 23, but this time it was the first local and regional governments summit realized on the premises of UNFCCC, co-hosted by the Mayor of Bonn and ICLEI vice-president. This summit resulted in the **Bonn-Fiji Commitment** by local and regional governments to deliver the Paris Agreement at all levels.

Local Climate Action Summit

Held during COP 28, it is the first summit of this kind hosted by a COP Presidency (in collaboration with Bloomberg’s Philanthropies).

In its joint statement, it recognizes the central role played by subnational leaders in addressing climate change and the achievement of the Paris Agreement targets. It also emphasizes the need to accelerate climate finance for subnational governments.

It counted with participation of more than 250 mayors and governors, including Anne Hidalgo (Paris, France), Claudia López (Bogotá, Colombia) and Eduardo Paes (Rio de Janeiro, Brazil).

Coalition for high ambition multilevel partnerships for climate action (CHAMP)

Commitment of national governments established during the COP 28, to work in partnership with their local governments aiming to accelerate local climate action in order to achieve the implementation of Paris Agreement goals - for example, through National Adaptation Plans, and the Nationally Determined Contributions (NDCs), in time for COP 30, in 2025.

It was developed in consultation with other stakeholders such as C40, WRI, GCoM, UN-Habitat, among others.

It was endorsed by 70 countries worldwide: 20 in Europe, 17 in Asia, 14 in Africa, 12 in North America, 5 in South America and 4 in Oceania (UN-Habitat, 2024).

Academic references

Bernstein, Steven; Cashore, Benjamin. (2012). Complex global governance and domestic policies: four pathways of influence. International Affairs, 88: 3, 585–604.

Brühl, Tanja; Rittberger, Volker. (2002). From international to global governance: Actors, collective decision-making, and the United Nations in the world of the twenty first century. In: Rittberger, Volker (ed.). Global Governance and the United Nations System. United Nations. Available at: https://archive.unu.edu/unupress/sample-chapters/GlobalGov.pdf.

De Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. et al. (2020) Concepts and forms of greenwashing: a systematic review. Environ Sci Eur 32, 19. https://doi.org/10.1186/s12302-020-0300-3

De Jong, M. D. T., Harkink, K. M., & Barth, S. (2018). Making Green Stuff? Effects of Corporate Greenwashing on Consumers. Journal of Business and Technical Communication, 32(1), 77-112. https://doi.org/10.1177/1050651917729863

Fukui, Ana. (2023). “Soluções baseadas na natureza” precisam considerar desigualdades sociais. Jornal da USP. Available at: https://jornal.usp.br/ciencias/solucoes-baseadas-na-natureza-precisam-considerar-desigualdades-sociais/.

Gründemann, G.J., van de Giesen, N., Brunner, L. et al. (2022). Rarest rainfall events will see the greatest relative increase in magnitude under future climate change. Commun Earth Environ 3, 235. https://doi.org/10.1038/s43247-022-00558-8

Harris, Paul G. (2011). Reconceptualizing Global Governance. In: John S. Dryzek, Richard B. Norgaard, and David Schlosberg (eds), The Oxford

Handbook of Climate Change and Society; online edn, Oxford Academic, 6 Jan. 2012, https://doi.org/10.1093/oxfordhb/9780199566600.003.0043.

Hickel, J., & Kallis, G. (2020). Is Green Growth Possible? New Political Economy, 25(4), 469–486. https://doi.org/10.1080/13563467.2019.159896

R Huxley, R.; Walsh, B.; Oke, C. et al. (2022). Commentary: A Research Agenda for Transformative Urban Climate Action. Journal of City Climate Policy and Economy, vol.1, issue 1. https://doi.org/10.3138/jccpe-2022.1.1.0003.

King, Lewis; Savin, Ivan and Drews, Stefan. (2023) Shades of Green Growth Skepticism Among Climate Policy Researchers. Forthcoming in Nature Sustainability https://doi.org/10.1038/s41893-023-01198-2., Available at SSRN: https://ssrn.com/abstract=4516544 or http://dx.doi.org/10.2139/ssrn.4516544

Klein, M. et al. (2020). Sharing in the benefits of a greening city. A policy toolkit to address the intersections of housing and environmental justice. Available at: https://create.umn.edu/toolkit/

Reckien et al (2018). Equity, environmental justice, and urban climate change. In Rosenzweig, C., W. Solecki, P. Romero-Lankao, S. Mehrotra, S. Dhakal, and S. Ali Ibrahim (eds.), Climate Change and Cities: Second Assessment Report of the Urban Climate Change Research Network. Cambridge University Press. New York. 173–224.

Mehryar, Sara. (2022) What is the difference between climate change adaptation and resilience?. LSE. Grantham Research Institute, Explainer. Available at: https://www.lse.ac.uk/granthaminstitute/explainers/what-is-the-difference-between-climate-change-adaptation-and-resilience/.

Smeds, E. (2019), Unpacking the Politics of C40: 'Critical Friendship' for a Second Decade. Glob Policy, 10:720-722. https://doi.org/10.1111/1758-5899.12757

Westman, L. and Castán Broto, V. (2022), Urban Transformations to Keep All the Same: The Power of Ivy Discourses. Antipode, 54: 1320-1343. https://doi.org/10.1111/anti.12820

Other references and resources

OBSERVATÓRIO DO CLIMA (2023). Acordo de Paris: um guia para os perplexos. Available at: https://www.oc.eco.br/wp-content/uploads/2023/11/Acordo-de-Paris-Um-guia-para-os-perplexos-1.pdf

GLOBAL PLATFORM FOR THE RIGHT TO THE CITY (2021). The right to the city: a roadmap for climate justice. Available at: https://www.right-2city.org/document/right-to-the-city-a-roadmap-for-climate-justice/.

INSTITUTO PÓLIS. (2021). SP Composta, Cultiva - Documento base para tomada de decisão [documento eletrônico]. São Paulo, SP: Instituto Pólis, 2021.Available at: https://polis.org.br/wp-content/uploads/2022/09/SPCC-DOCUMENTO-BASE.pdf.

_____(2022). Justiça energética nas cidades brasileiras: o que se reinvindica?. Available at: https://polis.org.br/wp-content/uploads/2022/12/estudo-justicaenergeticanascidadesbrasileiras.pdf.

IPCC (2018). Global Warming of 1.5°C.An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Available at: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_High_Res.pdf.

LA RUTA DEL CLIMA. (2021). Loss and damage: an introduction to paragraph 51 and compensation. Available at: https://larutadelclima.org/wp-content/uploads/2024/03/Loss-and-Damage-an-introduction-to-paragraph-51-and-compensation.pdf

OHCHR. (2023). Human rights and loss and damage: key messages.

Available at: https://www.ohchr.org/sites/default/files/documents/issues/climatechange/information-materials/2023-key-messages-hr-loss-damage.pdf.

UCCRN (2018). The future we don't want: How climate change could impact the world's greatest cities. UCCRN Technical Report. Available at: https://c40.my.salesforce.com/sfc/p/#36000001Enhz/a/1Q0000001pEp/SENykuA5.E6cilg7joiS6NwOeKAcaRcup.56jxi4SMs.

UNDP (2016). Gender and climate change: Overview of linkages between gender and climate change. Available at: https://www.undp.org/sites/g/files/zskgke326/files/publications/UNDP%20Linkages%20Gender%20and%20CC%20Policy%20Brief%201-WEB.pdf.

_____(2023).The climate dictionary: speak climate fluently. Available at: https://climatepromise.undp.org/sites/default/files/research_report_document/the_climate_dictionary_0.pdf.

UN-Habitat (2020). Enhancing Nationally Determined Contributions (NDCs) through Urban Climate Action. Available at: https://climatepromise.undp.org/sites/default/files/research_report_document/undp-unhabitat-ndcsp-ndc-guide.pdf.

_____ (2022). Urban Climate Action - The urban content of the NDCs: Global Review 2022. Available at: https://unhabitat.org/sites/default/files/2022/12/ndc_urban_content_2022_report.pdf.

_____(2024). Local Action for Global Goals: an opportunity for enhancing Nationally Determined Contributions. Technical Brief. Available at: https://unhabitat.org/sites/default/files/2024/02/un-habitat_ndcanalysis-technicalbrief.pdf