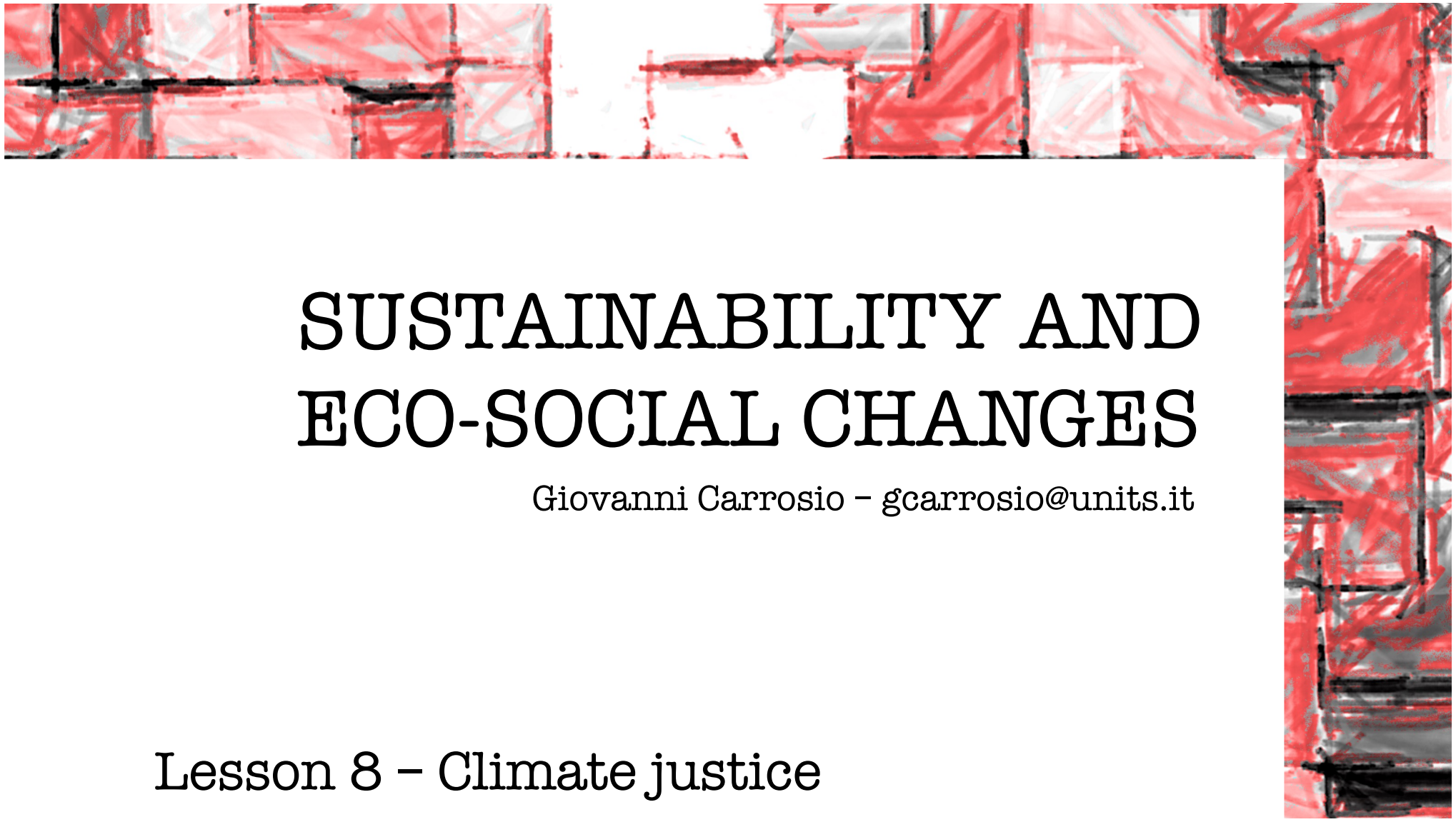

SUSTAINABILITY AND ECO-SOCIAL CHANGES

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Lesson 8 – Climate justice

The Factual Premise

Climate change threatens present and future life and health, as well as fundamental rights linked to quality of life, access to resources, food security, cultural heritage, preservation of local and global ecosystems, and political and economic stability.

This threat is not evenly distributed — neither in space nor in time. Neither are the responsibilities for causing the climate crisis.

Two key asymmetries:

- Asymmetry of impacts — the Global South, small island states, and low-income communities suffer most.
- Asymmetry of responsibility — high-emitting nations and social groups bear the largest historical footprint.

Environmental Justice: Origins

The movement

- 1982 — Warren County, North Carolina: protests by poor Black residents against a toxic waste landfill on their land.
- 1987 — United Church of Christ report documents the correlation between race and proximity to hazardous facilities.
- 1991 — First National People of Color Environmental Leadership Summit.
- 1994 — Executive Order 12898 (Clinton): federal agencies must address environmental justice in low-income and minority communities.

Robert Bullard

- First scholar to document how environmental hazards are systematically located in socially and economically weak communities — poor, African American, Hispanic, Native American.
- The 'environmental blackmail': communities accept pollution in exchange for jobs because they lack political and economic power to resist.
- US GAO study: 3 out of 4 hazardous landfills in Southern states were sited near ethnic minority communities.

Three Profiles of (In)Justice

1. Distributive Justice

The fair/unfair distribution of environmental goods and bads across territories, ethnic groups, and social classes.

In climate: who bears the costs and benefits of climate impacts and decarbonisation policies?

2. Procedural Justice

Equity in decision-making processes — who participates, who can influence the policy agenda?

In climate: are affected communities included in defining emission reduction targets and transition pathways?

3. Recognition Justice

The acknowledgment and respect of diverse identities, places, and knowledge systems.

In climate: are indigenous and marginalised voices recognised, or stigmatised, in climate narratives and policies?

From Environmental to Climate Justice

Climate justice is a political-philosophical concept that reframes climate change — not as a mere environmental or biophysical phenomenon — but as an issue with profound ethical, social, and political implications.

"Climate justice focuses on local impacts and experience, inequitable vulnerabilities, the importance of community voice, and demands for community sovereignty" Schlosberg & Collins, WIREs Climate Change (2014)

Movement origins:

- Grassroots environmental activism and indigenous peoples' movements — not just academic theory.
- 2007 — Climate Justice Now! network founded in Bali (alongside the UNFCCC COP 13).
- 2014 — 400,000 people march in New York City before the UN Climate Summit.
- 2015 — The Paris Agreement explicitly mentions 'climate justice' for the first time in a multilateral treaty.

Key Concepts:

Responsibilities,
Inequalities,
Debt

Carbon Debt: Cumulative Responsibility

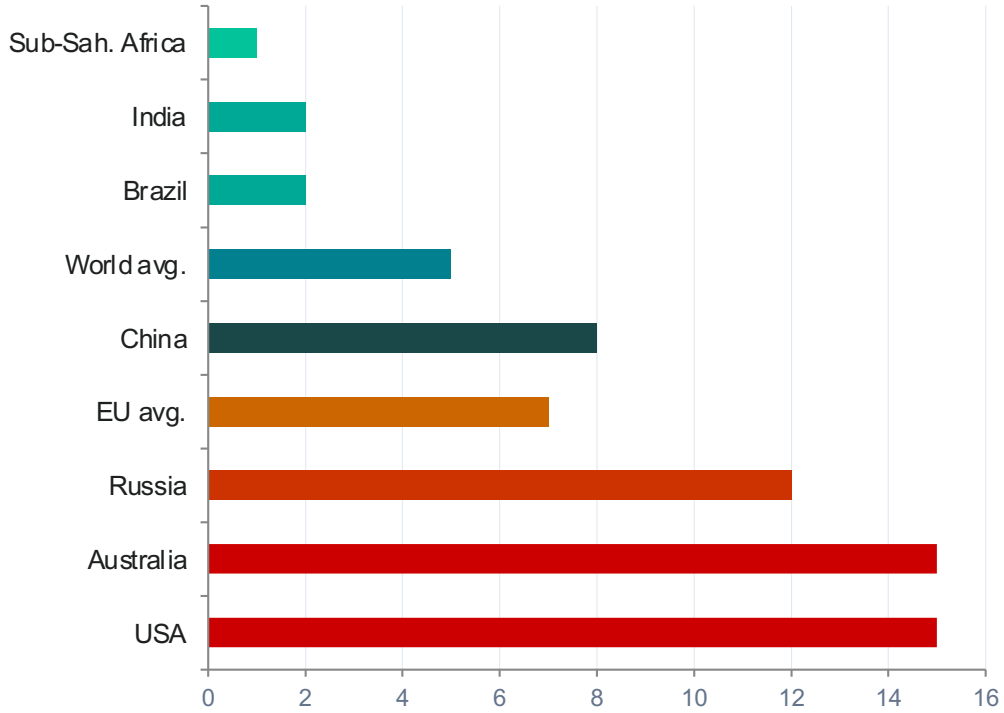
Carbon debt is the amount of CO_2 emitted by a country or individual beyond their 'fair share' of the global carbon budget.

Country / Group	**Cumul. CO_2 share (1850–2023)**	**Climate Vulnerability Index**
USA	25%	Low (highly adapted)
EU-27	22%	Low to moderate
China	14%	Moderate
Sub-Saharan Africa (all)	3%	Very high
Small Island States (SIDS)	<1%	Extreme
Global South overall	25%	High to Extreme

Those who emitted the least are the most exposed.
This is the central injustice at the heart of climate justice.

Emissions and Inequality: The Global Scale

Global average: 5.2 tonnes of CO_2 per person (2023)



Key data points:

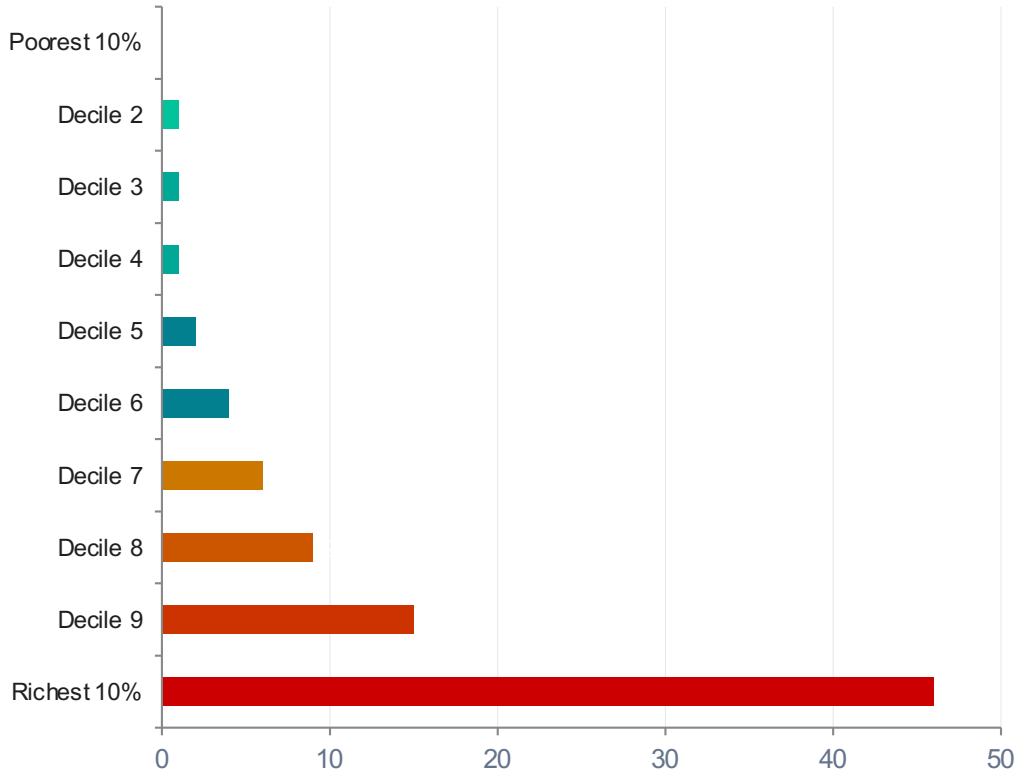
USA emits 15× more per capita than Sub-Saharan Africa.

China has now surpassed the world average but historical share remains far below the West.

EU average is still above the world mean despite decades of climate policy.

Source: Our World in Data / Global Carbon Project, 2022-2023.

Income Groups and CO_2 Emissions



What this tells us:

- The richest 10% emit roughly half of all global CO_2.
- The poorest 50% of the world's population is responsible for less than 10% of global emissions.
- This inequality operates both between countries and within countries.
- Source: Oxfam / Stockholm Environment Institute, 2020.

Production vs. Consumption Accounting

Production-based accounting

Emissions are assigned to the country where production takes place.

✓ Aligned with international treaties (UNFCCC, Kyoto, Paris)

✓ Highlights the role of entities controlling productive processes

✗ Ignores carbon 'offshoring' — moving dirty production to other countries

Consumption-based accounting

Emissions are assigned to the country where goods are consumed.

✓ Accounts for 'carbon leakage' and offshoring

✓ Reveals global distributive concerns

✗ Italy, for example, is a net importer of CO_2 under this approach

✗ Harder to measure and enforce

Choice of accounting method is not neutral — it reflects political positions on who bears responsibility.

A Typology of Regions by Emissions Profile

HIGH PRODUCTION →

Exporting regions (high production, low consumption)

- Low living standards
- Carbon-intensive economy
- Bear environmental costs for others

Developing / Emerging regions (high production, high consumption)

- Growing middle class
- High local pollution
- Rapid industrialisation

← LOW PRODUCTION

Traditional regions (low production, low consumption)

- Low carbon footprint
- High local environmental quality
- Limited economic activity

Importing / Post-industrial regions (low production, high consumption)

- High living standards
- Delocalise environmental impacts
- High import of ecological services

LOW CONSUMPTION

HIGH CONSUMPTION

From Global to Local

How do these inequalities work inside a single country?

Two Types of Climate Events — Two Forms of Vulnerability

Extreme Events

Floods — who lives in risk areas? Often the poorest (cheapest land).

Heatwaves — elderly people alone, outdoor workers, those without air conditioning.

Storms, landslides, wildfires — fragile housing, peripheral areas.

→ Visible, in the news. But the damage is NOT distributed equally.

Slow-Onset Processes

Desertification and water scarcity in southern Italy and the Mediterranean.

Loss of snow and glaciers in the Alps — water supply risk.

Sea level rise — coastal agricultural land.

Irregular rainfall — family farming destroyed season after season.

→ Invisible in the news. But they slowly destroy communities.

It Is Not Bad Luck — It Is Social Position

Your vulnerability = WHO you are × WHERE you live

People-based dimension

- Income and savings
- Age and health
- Education — access to information
- Owning vs. renting your home
- Type of work (outdoor? fixed?)
- Social networks and family support

Place-based dimension

- Quality and density of public transport
- Building quality and energy efficiency
- Distance from hospitals, emergency services
- Hydrogeological risk of the area
- Local governance and investment capacity
- Urban heat islands vs. green spaces

Climate risk is universal — but asymmetric. The combination of personal and territorial conditions determines vulnerability.

Ecological Citizenship

Operationalizing justice theory at the local level

Four Zones of Ecological Citizenship

INTEGRATED

Active participants in the transition

Solar panels, heat pump, electric car
Good public transport
Well-insulated home
Can invest and benefit from transition

Justice lens: benefits from distributive justice; voice in policy; recognized.

VULNERABLE

Unstable position, at risk

Renting old, inefficient flats
Depends on a car (no alternatives)
Not enough capital to adapt
One policy change can hit them hard

Justice lens: bears disproportionate costs; partially voiceless.

PROTECTED

Access thanks to public support

Social housing
Energy subsidies and social bonuses
Subsidised public transport
Position depends on continued policy

Justice lens: dependent on procedural inclusion in welfare design.

EXCLUDED

Deep marginalisation

Homeless, informal settlements
Villages where no infrastructure reaches
Invisible to policies
Not reached by either costs OR benefits

Justice lens: distributive failure + procedural absence + recognition failure.

Four places of Ecological Citizenship

Integrated territory A territory with its own resources and institutions, able to lead the ecological transition autonomously.

Vulnerable territory A territory exposed to climate and transition risks, with weak autonomous capacity and insufficient public support.

Protected territory A territory sustained by targeted public policies and dedicated resources that compensate for limited autonomous capacity.

Marginal territory A territory left outside both market dynamics and public protection, where the transition arrives as an external imposition.

People × Place: The 4×4 Matrix

	Integrated Territory	Vulnerable Territory	Protected Territory	Excluded Territory
Integrated Person	Best position: leads the transition	Good position, territory limits some options	Good position, public support helps	Cut off: good person, bad place
Vulnerable Person	Fragile person, but services help	DOUBLE FRAGILITY critical zone	Subsidies help but uncertain	Very high risk: vulnerable + excluded territory
Protected Person	Supported+integrated: stable	Policy reaches person but not territory	Stable through public support	Subsidies exist but infrastructure missing
Excluded Person	Extreme exclusion even in good territory	Invisible + fragile territory	Marginally reached by support	MAXIMUM EXCLUSION person + place excluded

Matched condition (person = territory)

Cumulative vulnerability — policy priority

Three Concrete Examples — Applying the 4×4 Matrix

Good for the climate — but unequal in their effects. The matrix tells us who is hit hardest.

EU Green Homes Directive

Policy:

EU law requires buildings to meet higher energy efficiency standards.

Who benefits:

Wealthy homeowners: renovate, save on bills, raise property value.

Who loses:
Tenants (no decision power). Small property owners (no capital). Excluded territories (no renovation firms, no bank loans).

Matrix: Hits: Vulnerable person in any territory; Excluded territory independently of person type.

End of Combustion Engine Cars (2035)

Policy:

From 2035, only zero-emission new cars can be sold in the EU.

Who benefits:
People who can afford an EV and live in cities with charging infrastructure.

Who loses:
Rural and peri-urban areas: no public transport, no charging network. Low-income workers with no alternatives.

Matrix: Hits: any person in Excluded or Vulnerable territory — the place-based dimension is decisive.

Carbon Pricing & Urban Traffic Zones

Policy:

Carbon taxes and ZTL reduce emissions from transport.

Who benefits:

People with access to alternatives (public transport, cycling, EVs).

Who loses:
People with no alternative to their old car — they pay more but cannot change. (Gilets Jaunes, France 2018.)

Matrix: Hits hardest: Vulnerable or Excluded person in Excluded territory.

Toward a Just Transition: Policy Implications

Not against the transition, but for a transition that addresses inequalities.

1. Integrate people-based and place-based policies: subsidies for individuals AND infrastructure in local communities.
2. Tailor interventions to specific vulnerabilities: there is no one-size-fits-all solution.
3. Identify “territorial traps” where structural interventions are needed, not just subsidies.
4. Monitor the effects of the withdrawal of public support: when programs end, local communities slide toward exclusion.
5. Develop early warning indicators for families at risk of downward mobility.