

5. Environmental issues, conflicts and ecological transition in the global world

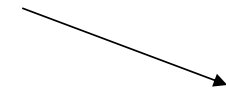


Environment, ecosystem, geosystem and economic system

Environment set of relationships and conditions that allow the life of living beings a certain space of the earth's surface.



living beings



physical systems

Ecosystem of plants and animals, connected to each other and to their physical environment (rocks, soil, climate, water) by a web of relationships necessary for their survival.

Geosystem as a whole of our planet, whose parts (lithosphere, hydrosphere, biosphere hydrosphere) are linked together by flows of matter and energy and function as a system, kept in balance by a series of cycles

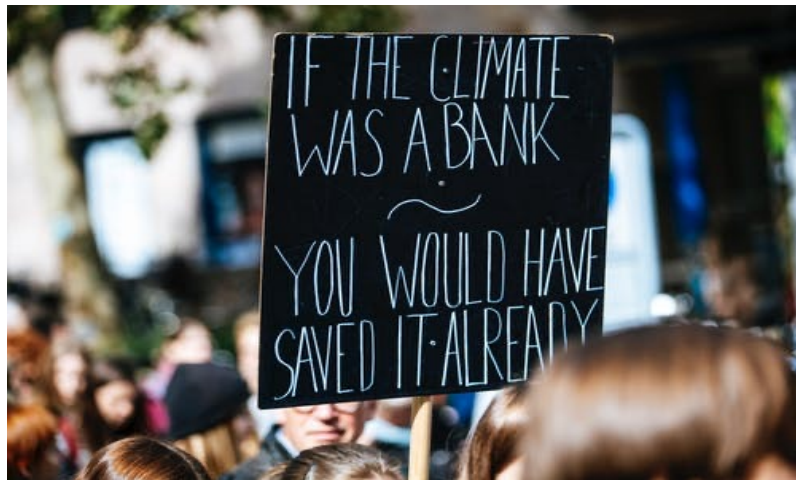
Economic system subset of the geosystem

The time of human societies

- the long times in human history are of the maximum order of a few thousand years
- the times of human life are short they are calculated in tens of years
- the times of the economy are even shorter, because they are linked to the economic balance sheets of the companies on which the market economy is based.



The economic system feeds a circulation of matter and energy according to times and methods different from those of the ecosystem itself and this causes alterations to the environment.



Reversible : can be reabsorbed by rebalancing feedbacks

Irreversible : remove the environment from its equilibrium definitively and therefore have destructive effects on it, in the short or long term.

In summary:

Anthropogenic action on terrestrial ecosystems has given rise to various phenomena such as: global climate change, the deforestation and desertification of large areas of the planet, the multiplication and growth of forms of pollution, which have contributed to the worsening of humanitarian crises, the outbreak of wars, forced migration and the spread of chronic diseases due to exposure to pollutants.

The evolution of environmental thinking shows the alternation of different interpretative and operational paradigms.

XVIII proto-ecology

Enlightenment
→ conservationism

Romanticism
→ preservationism

1860 Ecology as a science

Transcendentalism
→ Naturism

1920 Chicago sociology

Modern environmental thinking
Social movements (eco-marxism, eco-feminism...)
Scientific Environmentalism
(population, growth, decentralisation, pollution...)

1970 Ecosystem Ecology & Global Ecology (Gaia)

Green diplomacy
(sustainability, precaution, responsibility...)

bioregionalism

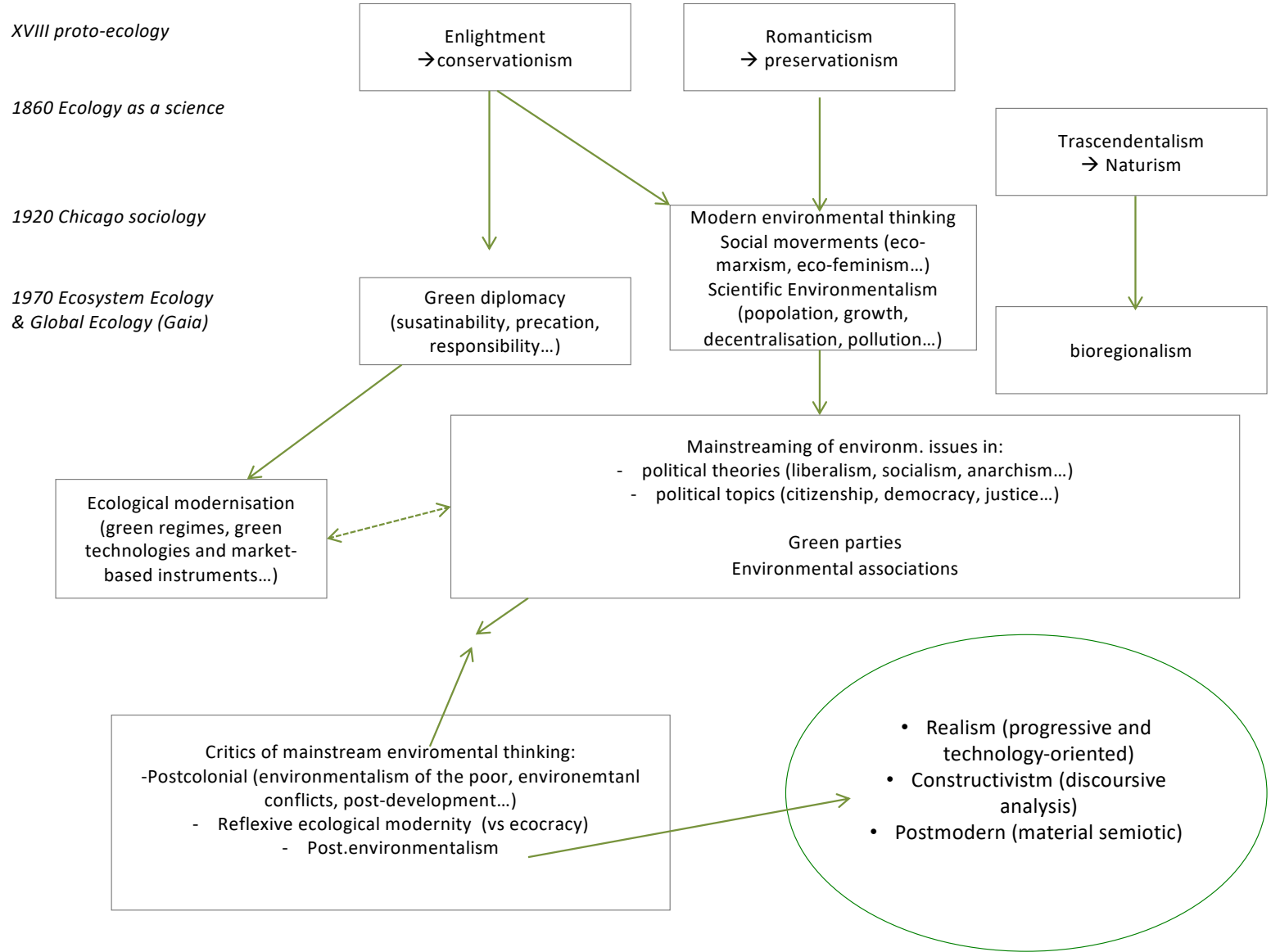
Ecological modernisation
(green regimes, green technologies and market-based instruments...)

Mainstreaming of environm. issues in:
- political theories (liberalism, socialism, anarchism...)
- political topics (citizenship, democracy, justice...)

Green parties
Environmental associations

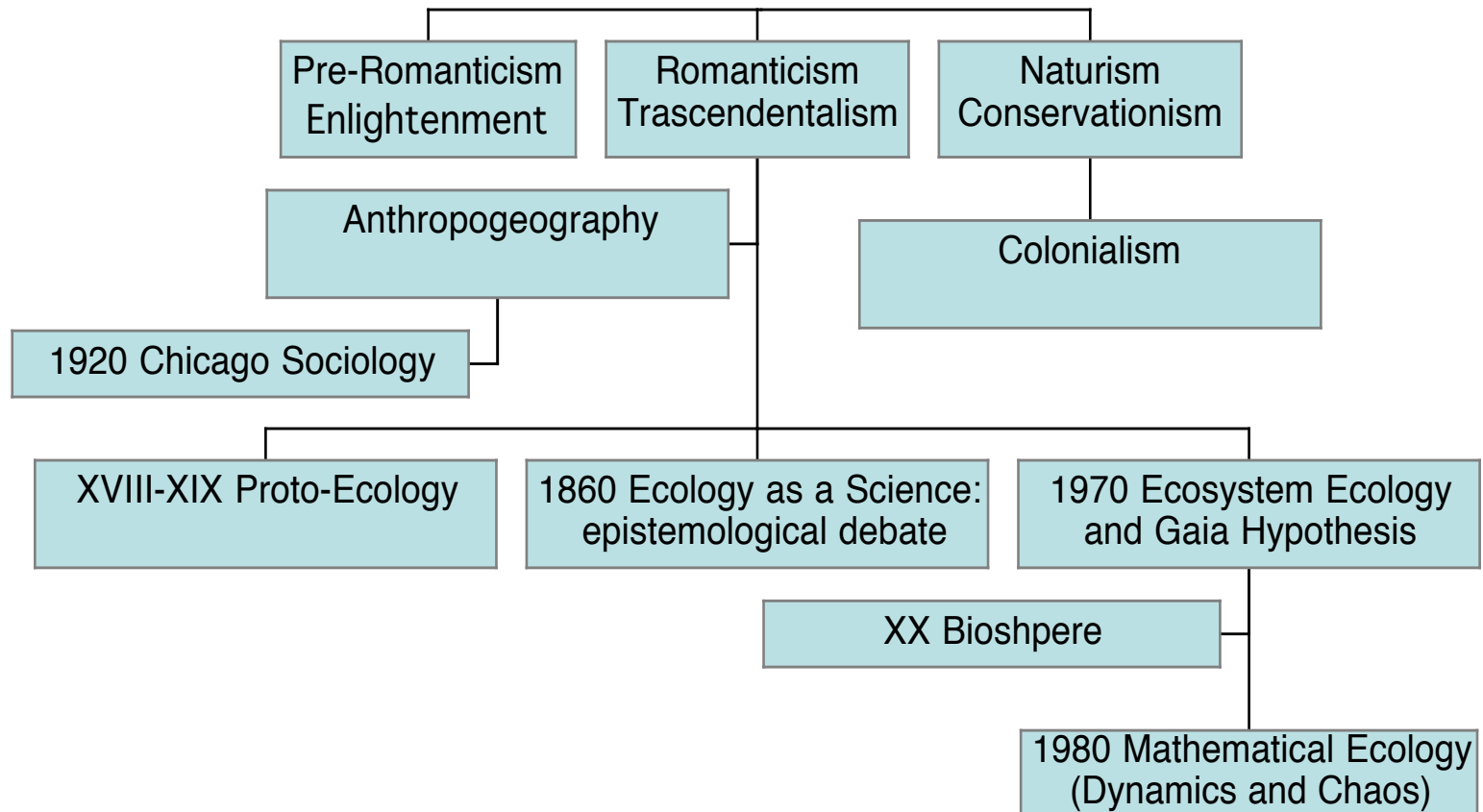
Critics of mainstream environmental thinking:
- Postcolonial (environmentalism of the poor, environmental conflicts, post-development...)
- Reflexive ecological modernity (vs ecocracy)
- Post.environmentalism

- Realism (progressive and technology-oriented)
- Constructivism (discursive analysis)
- Postmodern (material semiotic)



Evolution of environmental thinking

Origins of environmental thinking



Roots of modern environmental thinking

Romanticism

nature as a crucial part of the human inner voice
natural as source of moral order
(J.Rousseau, J. Herder, J. von Goethe...)

Transcendentalism

closeness to nature, simple life
(H. Thoreau. A. Just...)

Colonialism

the European encounter with the tropics (A.von Humboldt, R. Grove...)

Conservationism

protecting nature **for** development
(G.Marsh)

Preservationism

preserving nature **from** development
(J. Muir)

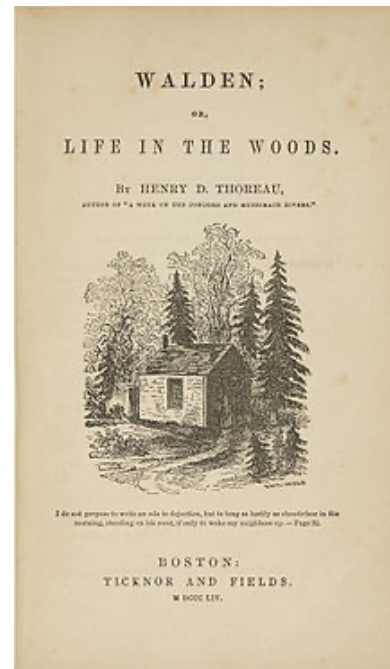
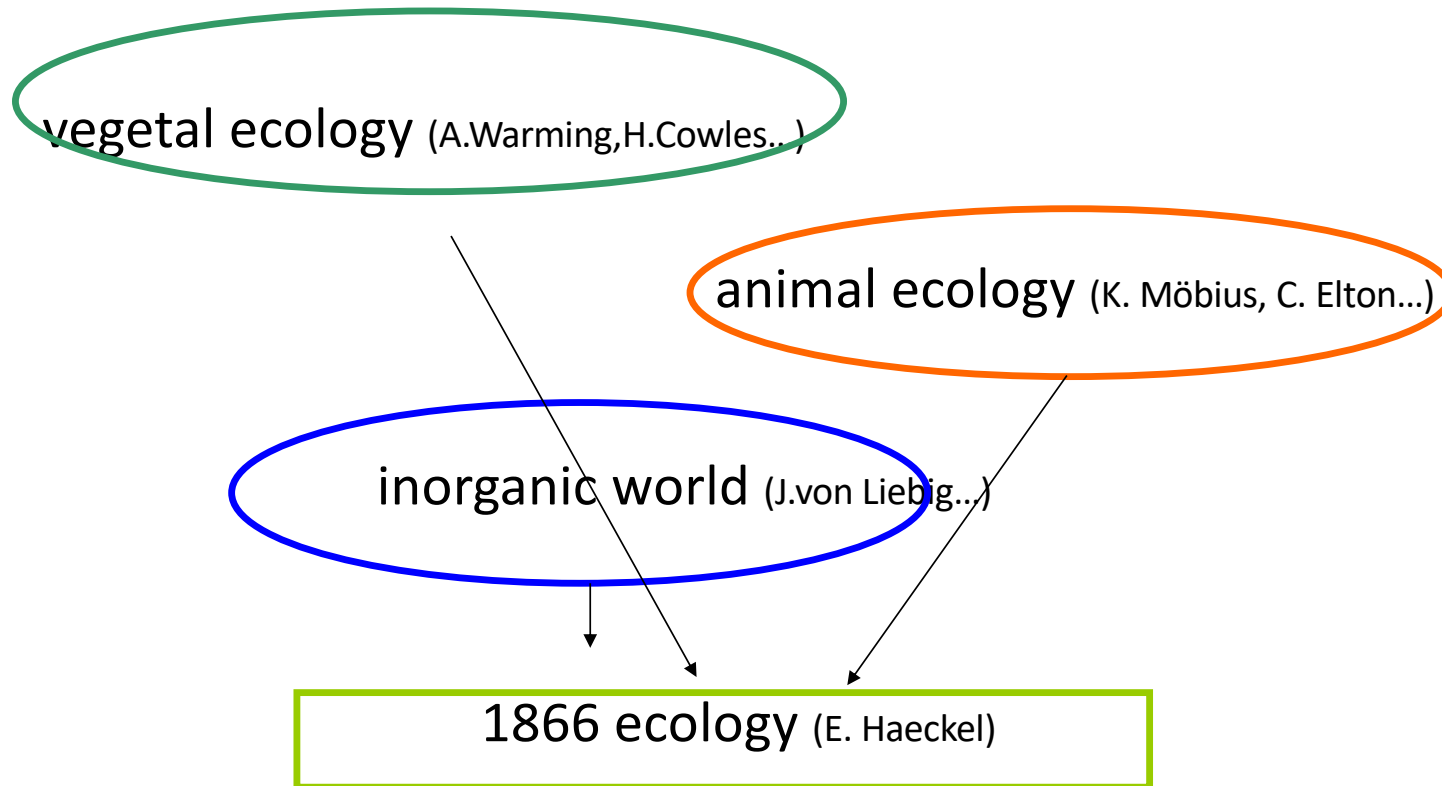


Photo: Wikipedia



[Caspar David Friedrich](#)
[Viandante sul mare di nebbia](#), 1818
Photo: Wikipedia

Scientific Ecology



1935 ecosystem (A. Tansley): includes biotic and abiotic world

The first ecologists formulate a comprehensive and organic view of the ecological system dynamics: the analysis of plant ecology, organised in vegetal communities, the analysis of trophic and demographic relationships among animals and the analysis of energy flows in chemical and physical terms. In the 20th century, precisely during the 30s, ecologists define their peculiar studying subject with the formulation of the concept of “ecosystem” (biotope and biocoenosis as a whole). The concept of “ecosystem”, formulated by the ecologist Arthur Tansley in 1935, allows for the fusion of three large research trends: vegetal ecology, animal ecology and studies on the inorganic world. It is from that definition that the dialogue between sciences of nature and System theory becomes fundamental to the new ecosystem view.



Photo: National Geographic

General System theory by L. Von Bertalanffy 1937



Ecosystem Ecology: aiming of clarify the natural cycles structure, the mechanisms of homoeostatic control in the ecosystem (Cybernetic) ; human activity and its effects on ecosystems

1960

(E.Odum, R. Margaleff, G. Hutckinson...)

Global Ecology (“the Gaia hypothesis”): The Earth is a complex cybernetic system able to resist to perturbations. The stability of Gaia is due to the existence of global control mechanisms that use the living processes of plants and animals to regulate climate, chemical and geological composition of the Earth. Nevertheless Lovelock is optimistic about Gaia’s capacity to metabolise polluting functions, he also realises that it is not possible to ignore the catastrophic consequences of human activity.

1970 (J.Lovelock, L. Margulis)

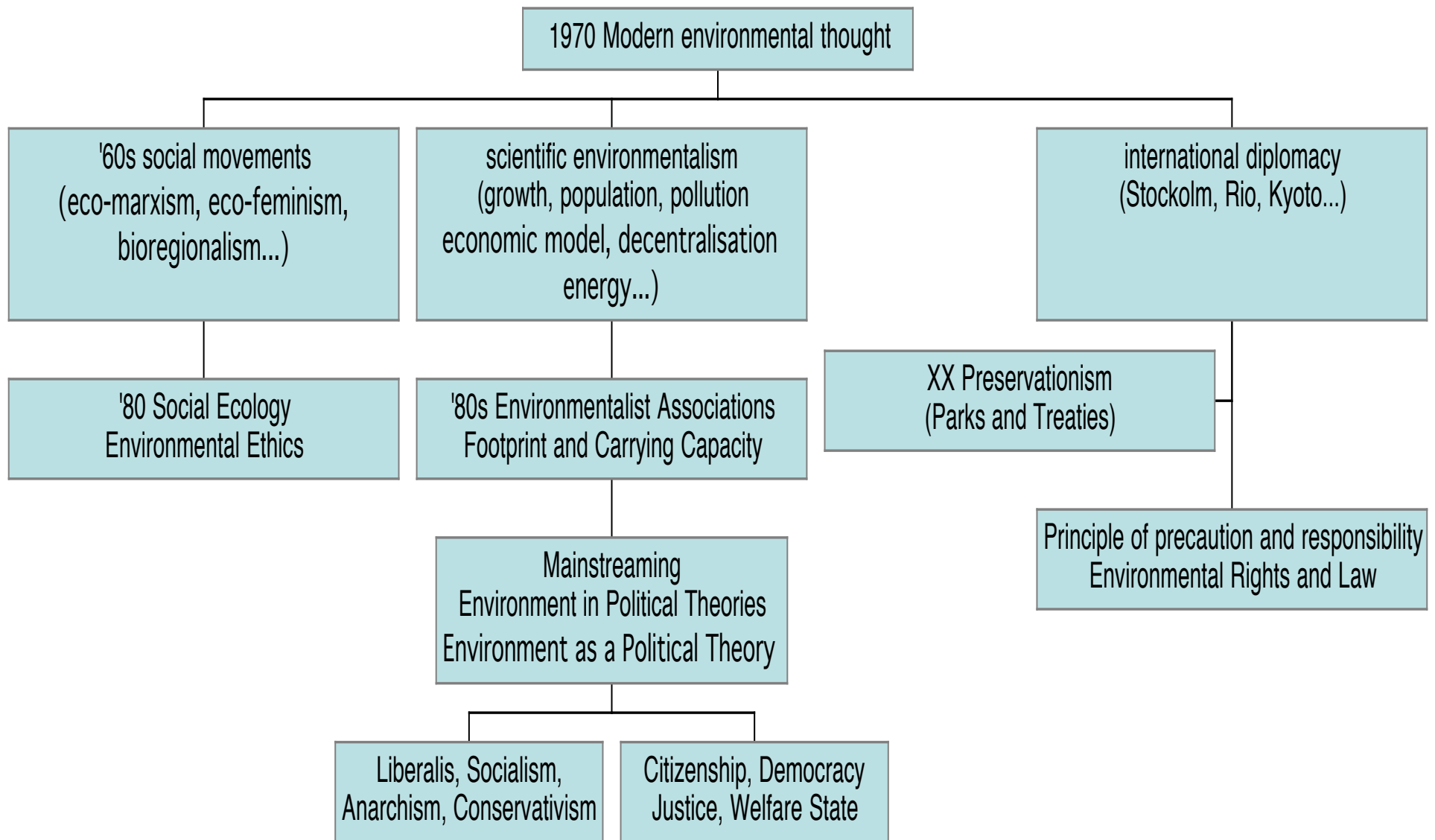
The environmental issue emerged in the Western world in the 1960s as a collective cultural elaboration relating to the possibility of preserving (where possible) or restoring the natural balance and functioning of ecosystems threatened or already compromised by the processes of industrialization, globalization and urbanization.

Compared to the ideal of capitalist economic growth, environmentalist culture brings about a revolution of the collective imagination, replacing the mechanistic metaphor, through which ecological processes were interpreted until then, a participatory knowledge, embodied in bodies and rooted in places.

“The innovative contribute of environmentalism in philosophy, politics and society is the description of the world as an interrelated system. In any complex system, the activity of the individuals might have hardly-predictable consequences on the whole system. According to reports carried out by several scientists, the western-world technology and its production system causes pollution, environmental imbalances, interruptions of natural cycles and an unequal distribution of the resources. It did not take long for radical voices within the environment movement, and critical voices in the social sciences and humanities, to question not just the side-effects of economic growth but also the phenomenon of economic growth itself and the broader processes of modernization.”

The birth of modern Environmental Thought

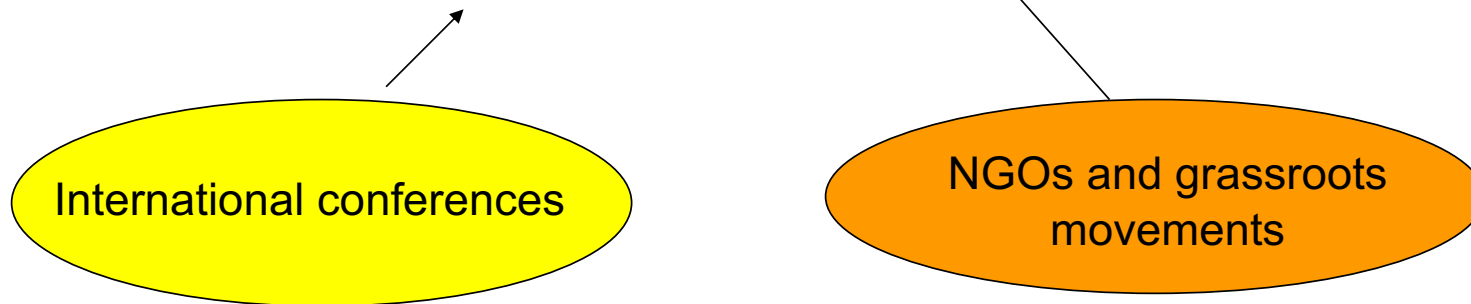






- world as an interrelated system (F.Capra)
- *The Limits to Growth* : 'limits-to growth' debate (the Meadows)
- *Silent Spring*: pollution (R.Carson)
- *The Population Bomb* : overpopulation (P. and A.Erich)
- clorofluorocarbon and ozone (Rowland and Molina)
- *The closing circle* : natural circles become open and ecomarxism (B. Commoner)
- deep ecology and biregionalism (A.Naess, M. Bookchin)
- *Small Is Beautiful* (B.Schumacher)

Environment issues enter international politics



1972 U.N. Conference on the Human Environment, Stockholm



Our Common Future (the Brundtland Report) by the World Commission on Environment and Development (1987):

- Developing countries and Developed Countries
- United Nations Environmental Program
- “Sustainable Development” definition

Green diplomacy and the mainstreaming of the environmental issue

The environmental issue receives institutional legitimacy with the first United Nations Conference on the Human Environment held in Stockholm in 1972, on the occasion of which, for the first time, all participants recognize the seriousness of environmental problems and undertake to work jointly to identify common values and strategies aimed at protecting the global ecosystem.

In the Brundtland Report entitled Our Common Future (1982), the concept of sustainable development is defined.

This expression prefigures the possibility of decoupling economic development from the processes of pollution and depletion of resources, generating growth without compromising the regeneration capacity of ecosystems.

From then on, environmental issues became central to the work of the UN which promoted a very high number of summits (among the best known, the Rio de Janeiro Earth Summit - 1992, the Johannesburg Summit - 2002 and the Rio Summit +20 - 2012) and thousands of declarations and protocols relating to the multiple aspects of the relationship between society and the environment.

1992 U.N. Conference on Environment and Development ('the Earth Summit'), Rio de Janeiro

- Climate convention
- Convention on Biodiversity
- Statement on Forest Principles
- Rio Declaration
- Agenda 21



- The consumption;
- The distribution of income;
- The sustainability of agriculture in countries with a commercial economy and in the global South;
- The protection of forests;
- The conservation of the genetic patrimony;
- Aid to the poorest countries;
- Water management;
- The regulation of gaseous emissions (in particular CO₂) which affect the climate.



Photo Wikipedia


World Summit on Sustainable Development, Johannesburg 2002

- Johannesburg Declaration on Sustainable Development and the Plan of Implementation
- Partnership (governments, industry and NGOs)
- South concerned with environmental issues; North support economic globalization

| 10 years later |

What on Earth Have We Done

As the 2002 Earth Summit gets under way, the world appears no better a place than what it was at Rio. Major disagreements are likely to derail the Johannesburg jamboree.



1 Air

- Air pollution has now become a major killer with three million people dying of it every year.
- Carbon emissions doubled in three decades. Global warming is now a serious threat.
- US carbon emissions are 16 per cent above 1990 levels making it a major polluter.

2 Water

- Forty per cent of world population now faces chronic shortage of fresh water for daily needs.
- Half the world's wetlands have been lost and one-fifth of the 10,000 freshwater species is extinct.
- Contaminated water kills around 2.2 million people every year.

3 Land

- Since 1990, 2.4 per cent of the world's forests has been destroyed. The rate of loss is now 90,000 sq km every year.
- Now two-thirds of the world's farm lands suffer from soil degradation.
- Half the world's grasslands are over-grazed. India is 25 per cent short of its fodder needs.

4 Wildlife

- 800 species have become extinct and 11,000 more are threatened.
- Almost 75 per cent of the world's marine captures is overfished or fully utilised. In North America, 10 fish species went extinct in the 1990s.
- Of the 9,946 known bird species, 70 per cent has declined in numbers.

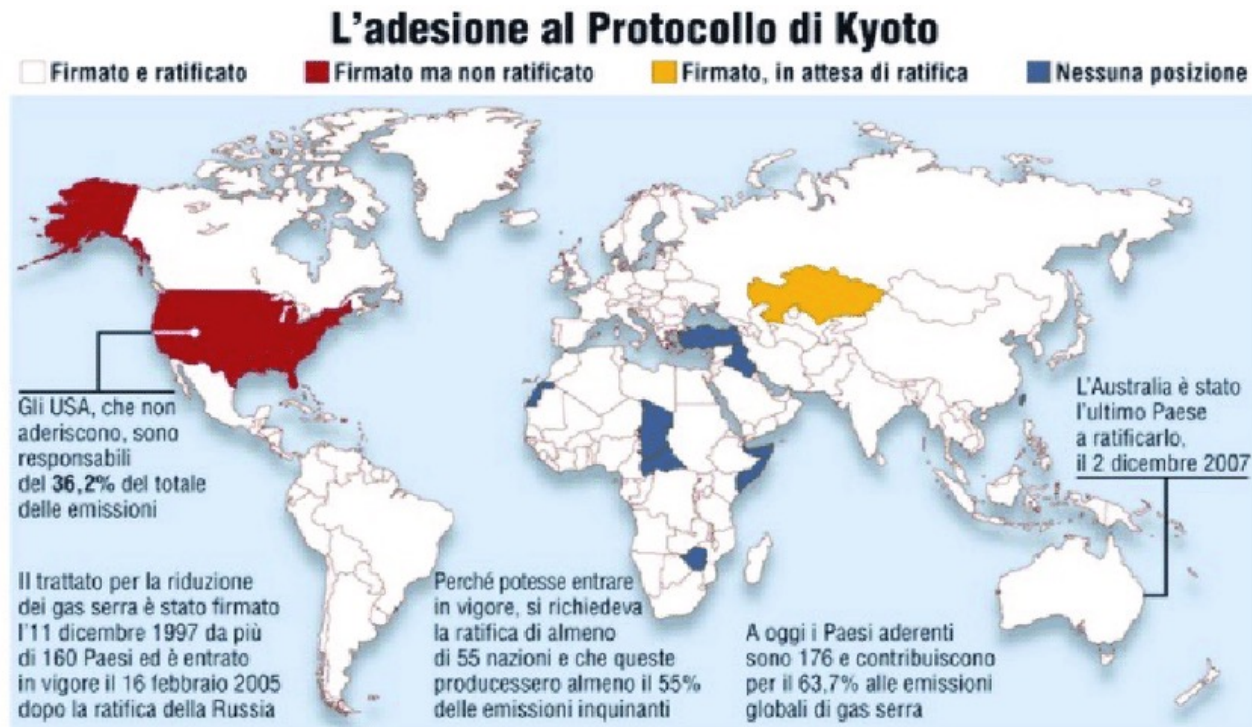
5 People

- The world added 800 million people since 1990. In 2000, global population was 6 billion, up from 2.5 billion in 1950.
- In 10 years, the world will have to feed and house another billion.

Photo India Today

Kyoto Protocol, 1997

- Joint Implementation (JI): if two industrialized countries that have signed reduction commitments carry out a project aimed at reducing greenhouse gas emissions, the investor country is credited with the emission rights of the host country. The investing country will then be able to produce a greater quantity of greenhouse gases, which must in any case be equivalent to the reduction obtained in the host country.
- Clean Development Mechanism (CDM): unlike JI projects, in CDM projects the partners of industrialized countries are developing countries that have not signed reduction commitments. In this case, therefore, the emission rights are not transferred, but created. The investor country can emit a greater quantity of greenhouse gases without the host country necessarily having to reduce its total emissions.
- Emissions trading (EIT): industrialized countries that have committed to reducing greenhouse gas emissions can exchange excess emission rights on the emissions market. It is also possible to exchange accreditations that come from climate protection projects carried out abroad. It is up to the individual countries to establish the criteria for admitting their companies to the emission rights market.



New principles in international action

New fundamental principles for international action towards environmental protection have been introduced both in official declarations and in ordinary communication, including the concept of carrying capacity and ecological footprint (Rees and Wackernagel 1994), the precautionary principles (Gollier et al. 2000), common but differentiated responsibility (United Nations Conference on Environment and Development, 1992) and the framework of environmental rights (Boyle et al. 2009).

Ecological footprint and carrying capacity

Sustainable development goal is said to be achievable by improving the quality of human life without damaging the carrying capacity of the supporting ecosystems. The Earth is presented as the supporting system of human life with a determinable 'carrying capacity' defined by upper limits that are set by techno-economic interventions.

Carrying capacity refers to the number of individuals who can be supported in a given area within natural resource limits, and without degrading the natural social, cultural and economic environment for present and future generations. The carrying capacity for any given area is not fixed. It can be altered by improved technology, but mostly it is changed for the worse by pressures which accompany a population increase. As the environment is degraded, carrying capacity actually shrinks, leaving the environment no longer able to support even the number of people who could formerly have lived in the area on a sustainable basis. No population can live beyond the environment's carrying capacity for very long.

The Ecological Footprint has emerged as the world's premier measure of humanity's demand on nature. It measures how much land and water area a human population requires to produce the resource it consumes and to absorb its wastes, using prevailing technology. Conceived in 1990 by Mathis Wackernagel and William Rees, the Ecological Footprint is now in wide use by scientists, businesses, governments, agencies, individuals, and institutions working to monitor ecological resource use and advance sustainable development.

(Wikipedia)

Human overpopulation / human population overshoot



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NOTING that the United Nations estimated global human population at 7.7 billion in 2019 and forecasts that the 2050 population will be between 8.9 billion (low variant projection) and 10.6 billion (high variant projection);



SCIENCE How many humans can Earth sustain? And what does it mean if we've already p

How many humans can Earth sustain? And what does it mean if we've already passed it?


ABC Science / By environment reporter Nick Kilvert for Life Matters
Posted Thu 25 Jul 2019 at 3:02am, updated Thu 25 Jul 2019 at 5:06am



<https://www.abc.net.au/news/science/2019-07-25/population-growth-world-overshoot-day/11320990>

[https://www.biologicaldiversity.org/programs/population and sustainability/population/](https://www.biologicaldiversity.org/programs/population%20and%20sustainability/population/)


https://en.wikipedia.org/wiki/Human_overpopulation



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TACKLING THE POPULATION PROBLEM








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TACKLING THE POPULATION PROBLEM

Every day we add 227,000 more people to the planet — and the UN predicts that human population will surpass 11 billion by the end of the century. As the world's population grows, so do its demands for water, land, trees and fossil fuels — all of which come at a steep price for already endangered plants and animals.

Current world population: 7,947,495,004

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In the 1970s, German law established that the public sector not only had to repair environmental damage, but also had to avoid it, through appropriate planning or through the prevention of activities considered potentially harmful.



Precaution principle

“According to the EC, the precautionary principle can be invoked when a phenomenon, a product or a process can have potentially dangerous effects, identified through a scientific and objective assessment, if this assessment does not allow the risk to be determined with sufficient certainty. The Commission stresses that the precautionary principle can only be invoked in the event of a potential risk, and that it cannot in any case justify an arbitrary decision. Recourse to the precautionary principle is therefore justified only when it meets three conditions, namely:

- identification of potentially adverse effects;
- evaluation of available scientific data;
- the extent of scientific uncertainty.

The authorities in charge of risk management may decide to act or not to act, depending on the level of risk.”

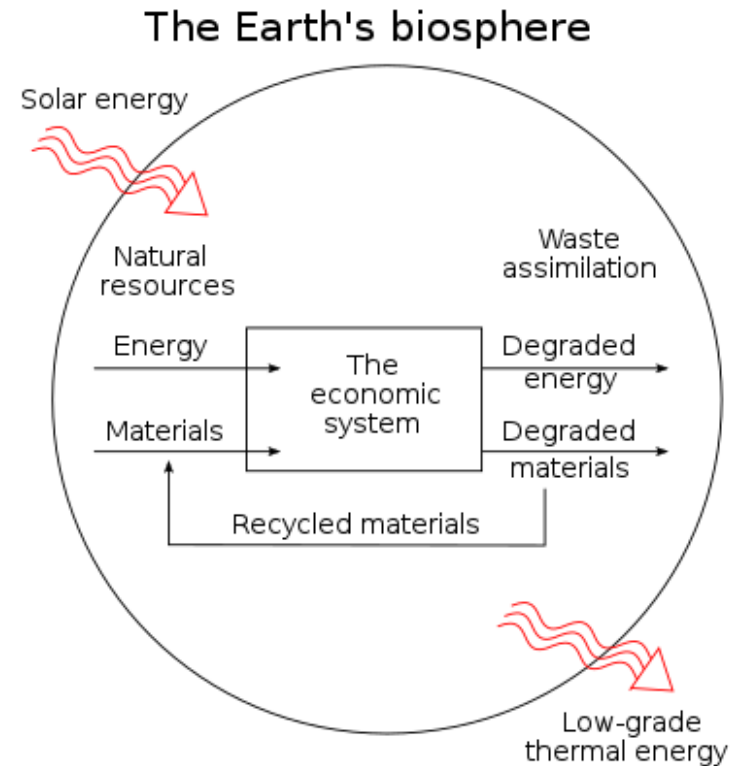
(Eur-Lex)



The Precautionary Principle

Environmental economics vs ecological economics

“Environmental economics is a sector of neoclassical economics that deals with the evaluation, monetization (mainly through the cost-benefit analysis method) and management of environmental damage resulting from the exploitation of natural resources, through the use of economic policies such as regulations, quotas, taxes and pollution permits. The most well-known expression of this economic approach is the Coase theorem (1960), which treats environmental damage as negative externalities, easily monetizable and, in the absence of transaction costs (costs necessary, in terms of time and money, to define the agreement), which can be negotiated privately, without the necessary intervention of the state. Born in the context of the environmentalist protest against the policy of growth, the ecological economy is, on the other hand, an interdisciplinary research sector that conceives economic activity as a subset of ecology. It involves the collaboration of economists, physicists and biologists in order to identify conduct strategies aimed at preserving natural resources and limiting the environmental impact of economic activities, rather than providing for the management and ex post monetization of the damage inflicted on them. environment. The origins of ecological economics are traditionally traced in the works of the American economists Kenneth Boulding (1966) and Herman Daly (1973), and the Romanian economist Nicholas Georgescu-Roegen (1971).” ([V. Di Giovinazzo](#))



Mainstreaming environmental issues

Environmental Politics = a set of principles and intentions used to guide decision making about human management of environmental capital and environmental services



- a combination of environmental sustainability and economic development (win-win strategy)
- increase of scientific knowledge (language of truth) determines increase of political awareness
- normalised solutions = rational and agreed-upon responses to environmental issues

→ Critics of Sustainable Development paradigm

conventional environmental politics
is *normalised* and *mainstreamed*
under the same modernist frame it
apparently is called to challenge; it is
based on a hidden form of normative
universalism, whose search for
consensus through discourse-
oriented politics, still relies on the
dualistic imaginary enabled by
rationalist tradition



In this process, the potentially revolutionary message of environmental thought has been gradually diluted into a multitude of new reference principles and tools for measuring the anthropogenic impact on ecosystems.

Environmental thinking thus undergoes a double process of normalization:

- epistemological: what counts as truth about the state of the world and which interpretative paradigms are to be considered reliable has been defined;
- politics: it converges on norms, indications, rules that can be considered as socially normal.

Many large companies, therefore, embrace the ideal of sustainable development, although this often produces only a superficial revision of the corporate image (called greenwashing) rather than real transformations of action strategies.

So, over time, although they have established themselves as key issues on the international political agenda, environmental issues have undergone a progressive "depoliticization", losing their bite in favor of technocratic and compromising positions.

Environmental thinking has transformed so as to know of opposition to knowing of domination.

- environmental values as something worthwhile to invest in
- world saved by more and better managerialism
- few annoying trade-offs for local population
- 'laboratory places' and 'showcase places'
- green washing

Pericolo greenwashing: come riconoscere i falsi prodotti ecologici

GUIDA. Etichette ingannatrici, pubblicità fuorvianti, lessico confuso: orientarsi nell'universo delle aziende sostenibili è un po' come avventurarsi nella tana del Bianconiglio di Alice. Ci sono cappellai matti, regine sconclusionate e rose verniciate da individuare

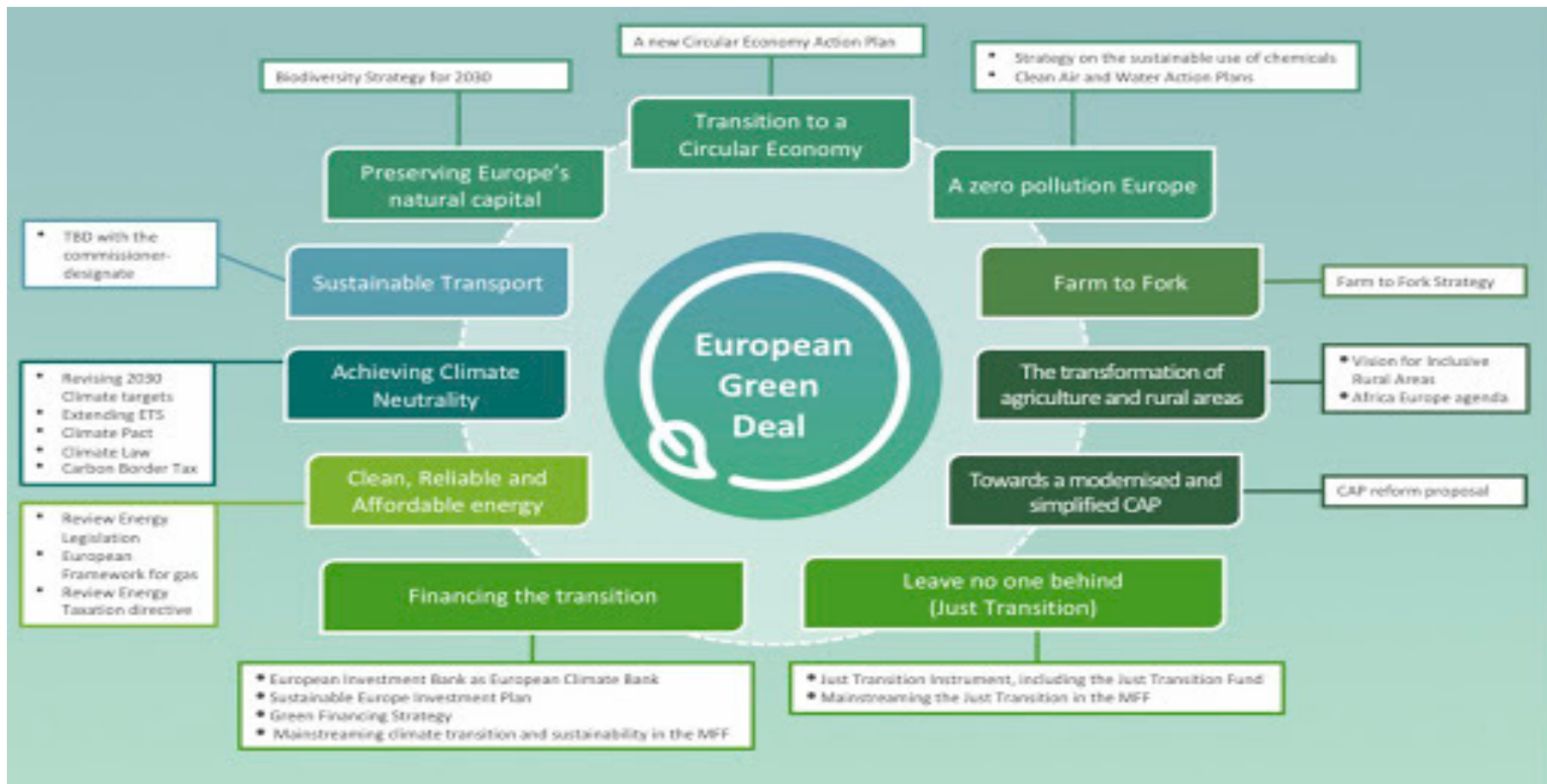
https://www.ecodibergamo.it/stories/eppen/extra/green/pericolo-greenwashing-come-riconoscere-i-falsi-prodotti-ecologici_1417630_11/

The theory of ecological transition, which has emerged in the public debate in recent years, has its roots in the study of technological innovation systems of a managerial nature and requires that public governance mechanisms be guided by the indications of experts, with economic interventions aimed at change collective behaviors.

The theory of ecological transition is close to realistic and institutional positions, and therefore identifies in the industrial sector and in private companies the key players to develop new sustainable industrial chains or transform existing ones, thanks also to the creation of favorable regulatory frameworks by public institutions .

However, this perspective presents the traits of the scientific solutionism that has accompanied the depoliticization of environmental issues over time.

[DOCS +video https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_it](https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_it)



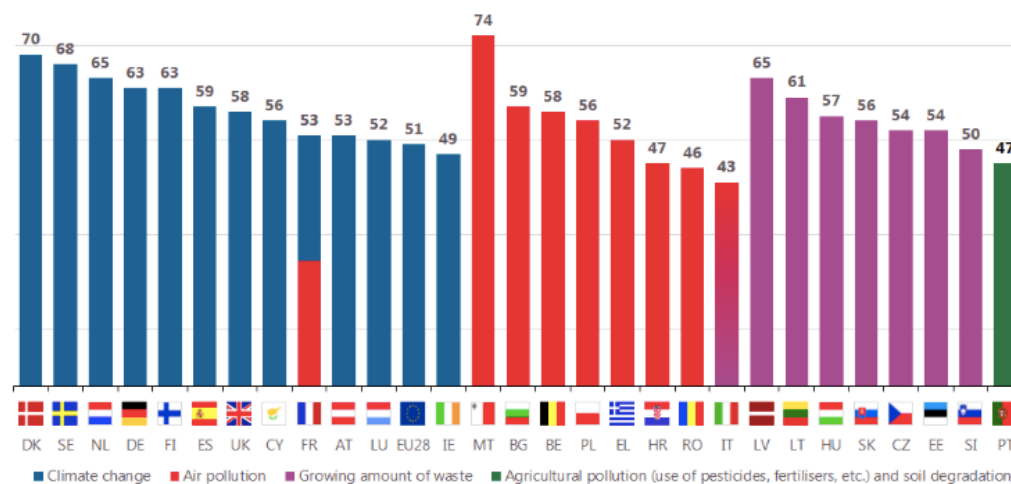
Sistemi economici mondiali

Eurobarometer 92.4: Attitudes of European citizens towards the Environment -2020

QD2 From the following list, please pick the four environmental issues which you consider the most important. (MAX. 4 ANSWERS)
(%)

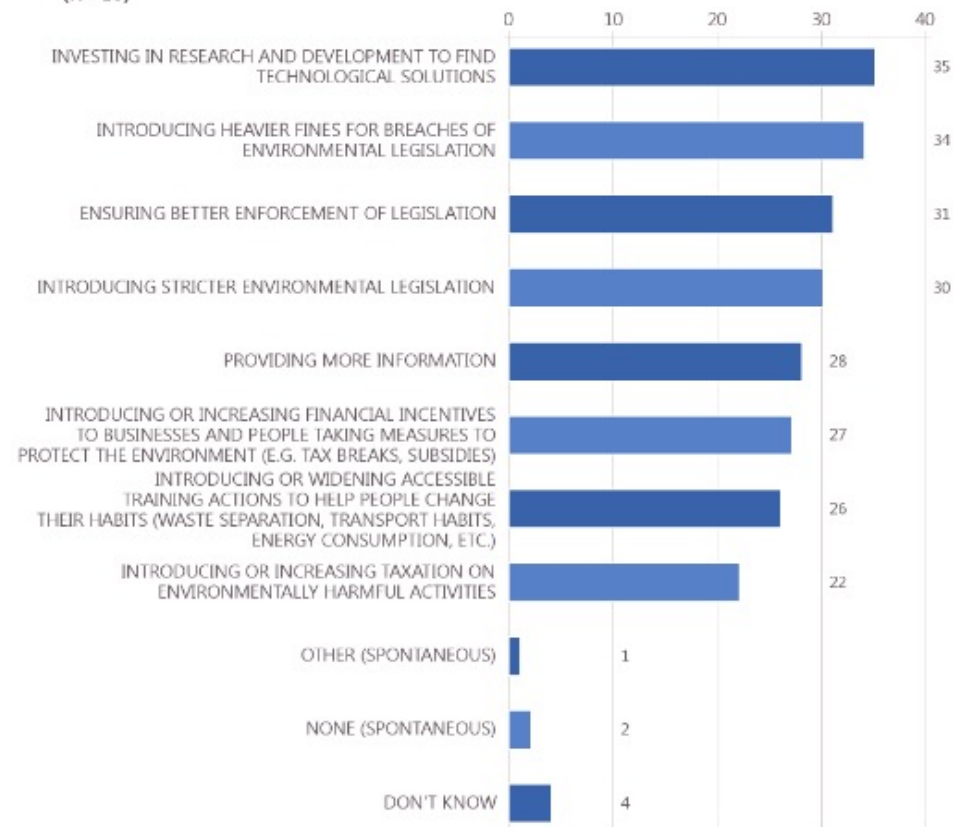


QD2 From the following list, please pick the four environmental issues which you consider the most important. (MAX. 4 ANSWERS)
(% - THE MOST MENTIONED ANSWER BY COUNTRY)



Base: all respondents (n=27,881)

QD8 In your opinion, which of the following would be the most effective ways of tackling environmental problems?
 (MAX. 3 ANSWERS)
 (% - EU)

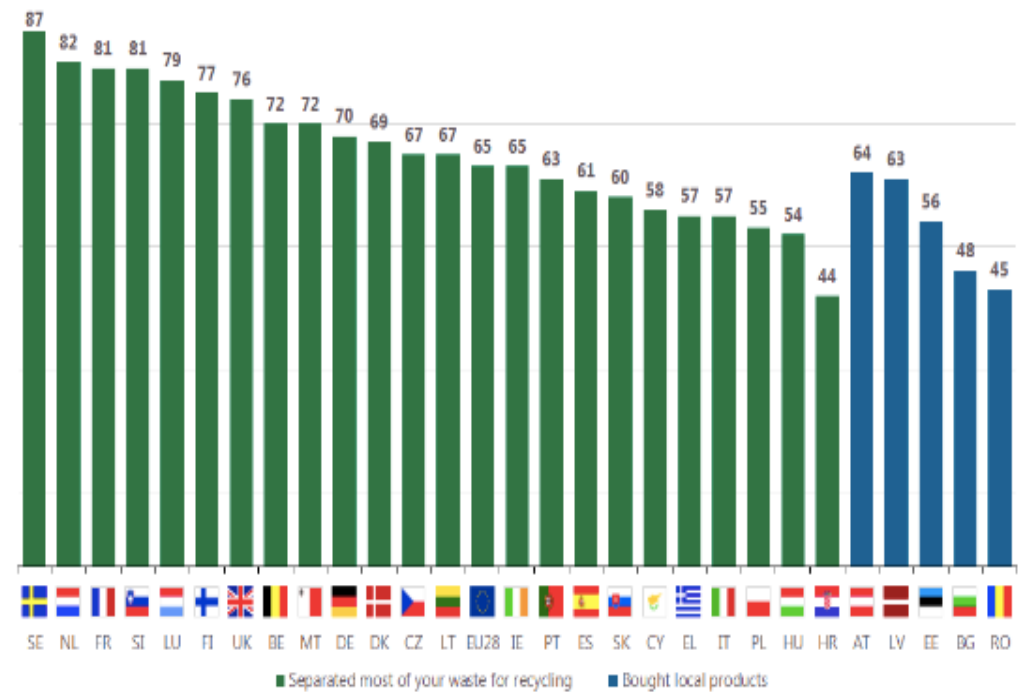


Base: all respondents (n=27,881)

QD4 Have you done any of the following in the past six months?
(MULTIPLE ANSWERS POSSIBLE)
(%)

Separated most of your waste for recycling
Bought local products
Cut down your energy consumption (e.g. by turning down air conditioning or heating, not leaving appliances on stand-by, buying energy-efficient appliances)
Avoided single-use plastic goods other than plastic bags (e.g. plastic cutlery, cups, plates, etc.) or bought reusable plastic products
Cut down your water consumption
Chosen a more environmentally-friendly way of travelling (walk, bicycle, public transport, electric car)
Avoided buying over-packaged products
Bought products marked with an environmental label
Used your car less by avoiding unnecessary trips, working from home (teleworking), etc.

QD4 Have you done any of the following in the past six months? (MULTIPLE ANSWERS POSSIBLE)
(% - THE MOST MENTIONED ANSWER BY COUNTRY)



Base: all respondents (n=27,881)

The social construction of nature: ecological modernity and reflective modernity

In analyzing the environmental debate, critical geography has shown how this is characterized by the antithesis between two main approaches.

The realistic approach, adopted by international organizations, large environmental NGOs and the business world offers a representation of environmental problems whose (presumed) objectivity is based on reference to scientific data, and on them it elaborates intervention strategies aimed at restoring the original balance of ecosystems.

The realist positions call for a new ecological modernity driven by competitiveness and technological innovation.

The sociologists of the last generation of the Frankfurt School since the nineties have advanced a constructivist position that interprets environmental issues as cultural constructions, strictly connected to the relationship between society and the environment.

Constructivists advocate a reflexive ecological modernization based on a rethinking of the functioning of capitalist societies.

The best-known constructivist theory, proposed by Ulrich Beck, argues that we live in a society in which the logic of risk that is at the heart of the technological and political functioning of advanced industrial societies dominates and produces global threats independent of class, ethnicity or belonging. cultural.

This theory argues that ecological problems persist as they are generated by the same economic, scientific and political institutions that are called upon to solve them, but it underestimates the importance of people's living conditions in being able to deal with environmental problems differently.

Deconstructing *mainstream*

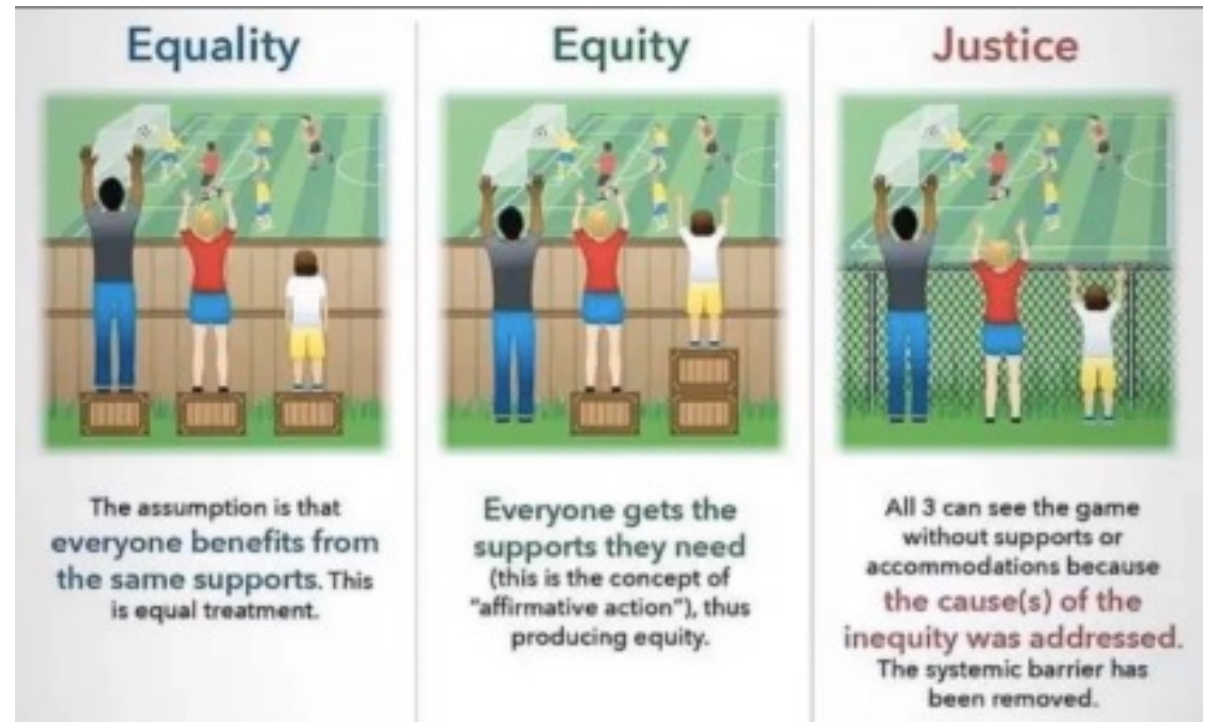
Since the 1990s, mainstream environmental policies have been the subject of precise and radical criticism.

The theory of political ecology, of Marxist and postcolonial inspiration, focuses on the links between environmental degradation and socio-economic marginalization, challenging the apolitical interpretation of institutional environmentalism.

Geographer Edward Soja explained that the cause of spatial injustices lies in the fact that the environmental and geographical circumstances in which different people live play a crucial role in determining the distribution of opportunities, material and immaterial wealth, services and resources.

Disequality → Injustice

- Inequality refers to an imbalance, the lack of equality
- Inequity refers to unjustified and discriminatory inequality



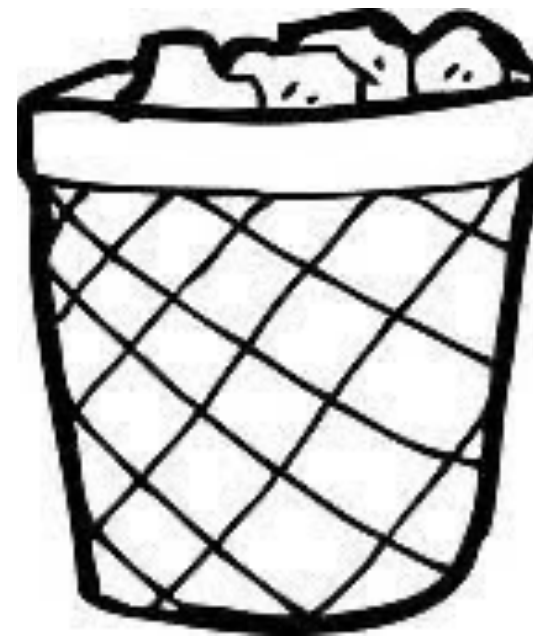
Social Justice

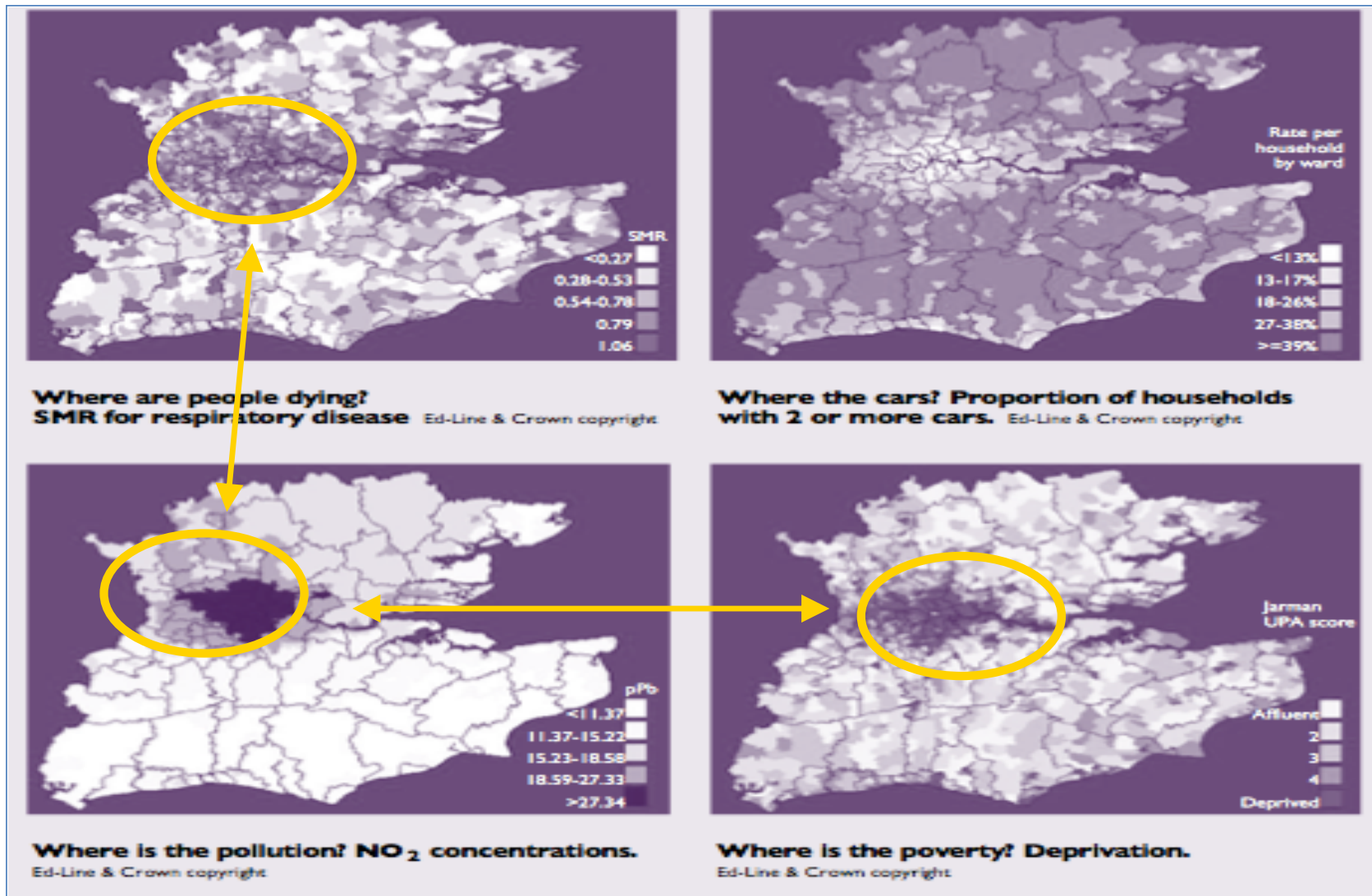


Spatial critique to social justice

- Justice as equality (distributive justice): Everyone should get the same amount of what we are assigning
 - 1970s: distributive task for the state (Keynesian policies)
 - Crisis of the 70s + globalization of the 80s-90s: weakened the power of the state in guaranteeing social justice
 - Criticisms: unequal distribution to ensure equality (Rawls, 1971)
- The factors that determine the quality of life are not distributed equally in space: the notion of social justice is abstract
 - One size fits all justice does not help everyone equally
 - Producing fair conditions = understanding the geography of injustice

*Exercise
Space
matters!*





Sistemi economici mondiali

Map: Friends of the Earth



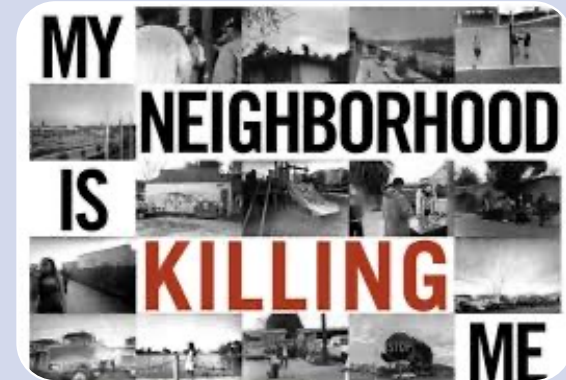
Social Justice

A form of non-procedural justice referring to the role played by government in promoting the just distribution of benefits and costs throughout society



Spatial Justice

...adds that the distribution of opportunities, material and non-material benefits, services and resources are not equally distributed across the geographical space – and this form of unequal distribution overlaps with the unequal distribution occurring through the social corpus



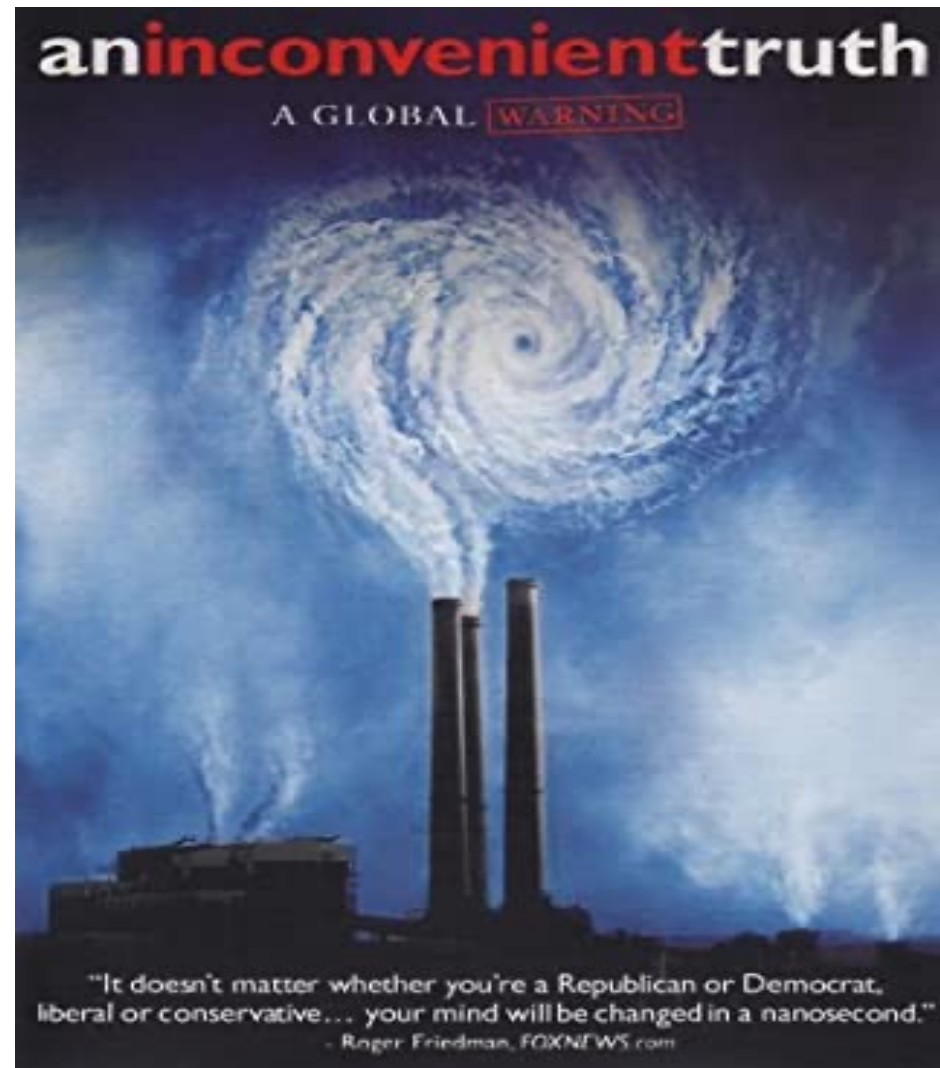
Environmental Justice

... signals that a close link exists between the spatial distribution of kind of population groups and the location of origin or manifestation of environmental problems (ecologically degraded sites, polluted areas...)

Global warming

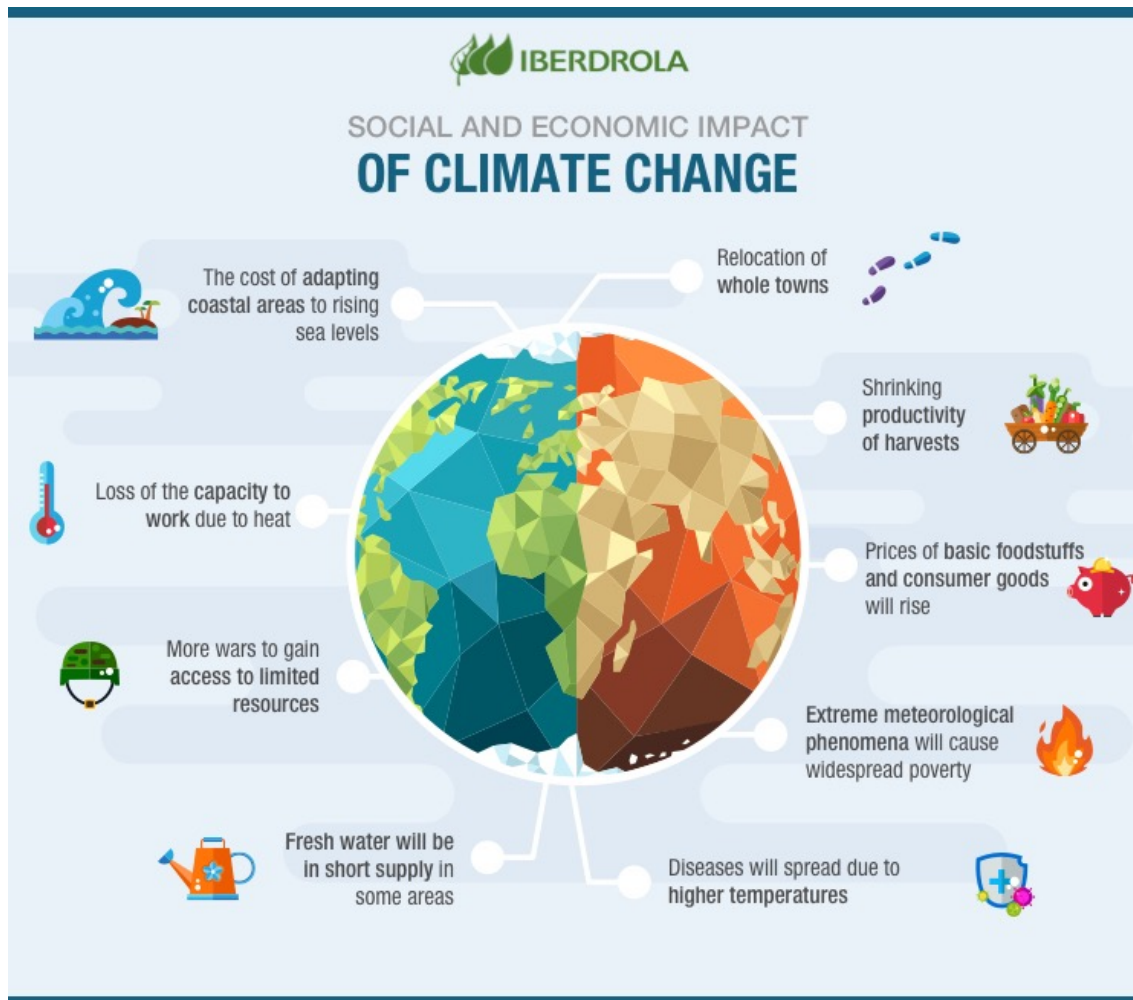


<https://www.youtube.com/watch?v=F1Qn-gueAgw>



Sistemi economici mondiali

Climate changes: geo-ecological alterations



- extreme weather conditions
- reduction of the ozone layer,
- increased risk of fire
- loss of biodiversity
- stress for food production systems
- global spread of infectious diseases

For instance, water impacts:

- Warmer water temperatures affect water quality and accelerate water pollution
- In some areas, shrinking glaciers and snow deposits threaten the water supply
- Flash floods
- Human demand for water on the rise
- Changes in waterborne diseases



Probability of vulnerability phenomena



very high: interactions between climate change and urbanization



high: Interactions between climate change and global economic growth



media: interactions with government and social structures that already face other pressures, such as limited economic resources.

Global exposure to climate change

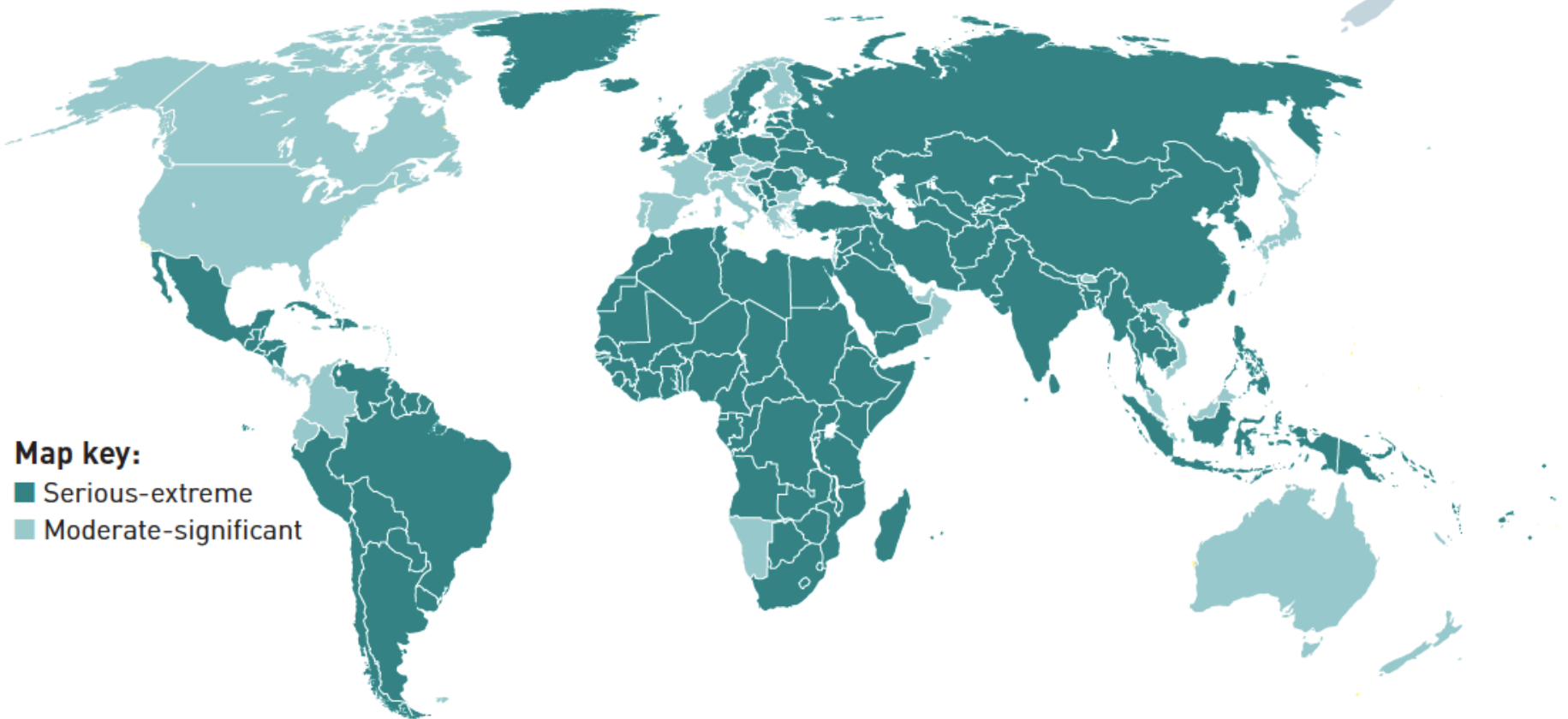


Photo Smith, Dan; Vivekananda, Janani (2007). ["A climate of conflict"](#). *International Alert*



long-term fluctuations in the frequency of wars and population changes have followed cycles of temperature change since the pre-industrial era

Photo Smith, Dan; Vivekananda, Janani (2007). ["A climate of conflict"](#). *International Alert*

Climate change > major conflicts

- The war in Darfur 2003-2009
- Syrian Civil War 2011-
- Islamist uprising in Nigeria 2009-
- Somali Civil War 1986-
- Conflicts between shepherds and farmers in Nigeria, Mali, South Sudan 2008-
- Northern Mali conflict 2012-

THE DOUBLE-HEADED RISK

The consequences of consequences of climate change include a high risk of armed conflict in 46 countries with a total population of 2.7 billion people, and a high risk of political instability in a further 56 countries with a total population of 1.2 billion.

Map key:

- A: States facing a high risk of armed conflict as a knock-on consequence of climate change
- B: States facing a high risk of political instability as a knock-on consequence of climate change
- C: Other states

Technical note

The IPCC's Fourth Assessment Report of 2007 shows that global warming will have global effects, varying in both kind and degree.

Research for this report identified 102 countries* as being at risk of significant negative knock-on socio-political effects, using three criteria for selection:

1. Their presence on a variety of international watch lists, the UK Department for International Development's 'pricy list' of Fragile States, the Global Peace Index ranking of 121 states (bottom 50 positions), the International Crisis Group 'crisiswatch' list, the World Bank's list of Low Income Countries Under Stress;
2. The presence of an operational UN peacekeeping force;
3. The prospect of, or their engagement in, economic or political transition (e.g., from autocracy towards democracy or leadership succession).

Within this group of 102, 46 countries were identified as facing a high risk of armed conflict. Primarily these are countries with current or recent experience of armed conflict, because this is a reliable indicator of propensity to further violence. In addition, particularly weak institutions of government and very poor economic performance were used as guides to the selection.

The larger map does not make predictions but indicates risk. It should be borne in mind that armed conflicts vary widely in their levels of lethality and in whether they occur at a local, national or regional level.

The smaller map shows countries' exposure to climate change, based on the A1 scenario (approximately 'business as usual') used by the IPCC.

*A full listing of these countries can be found at the end of the references on page 64.

Impacts on international security

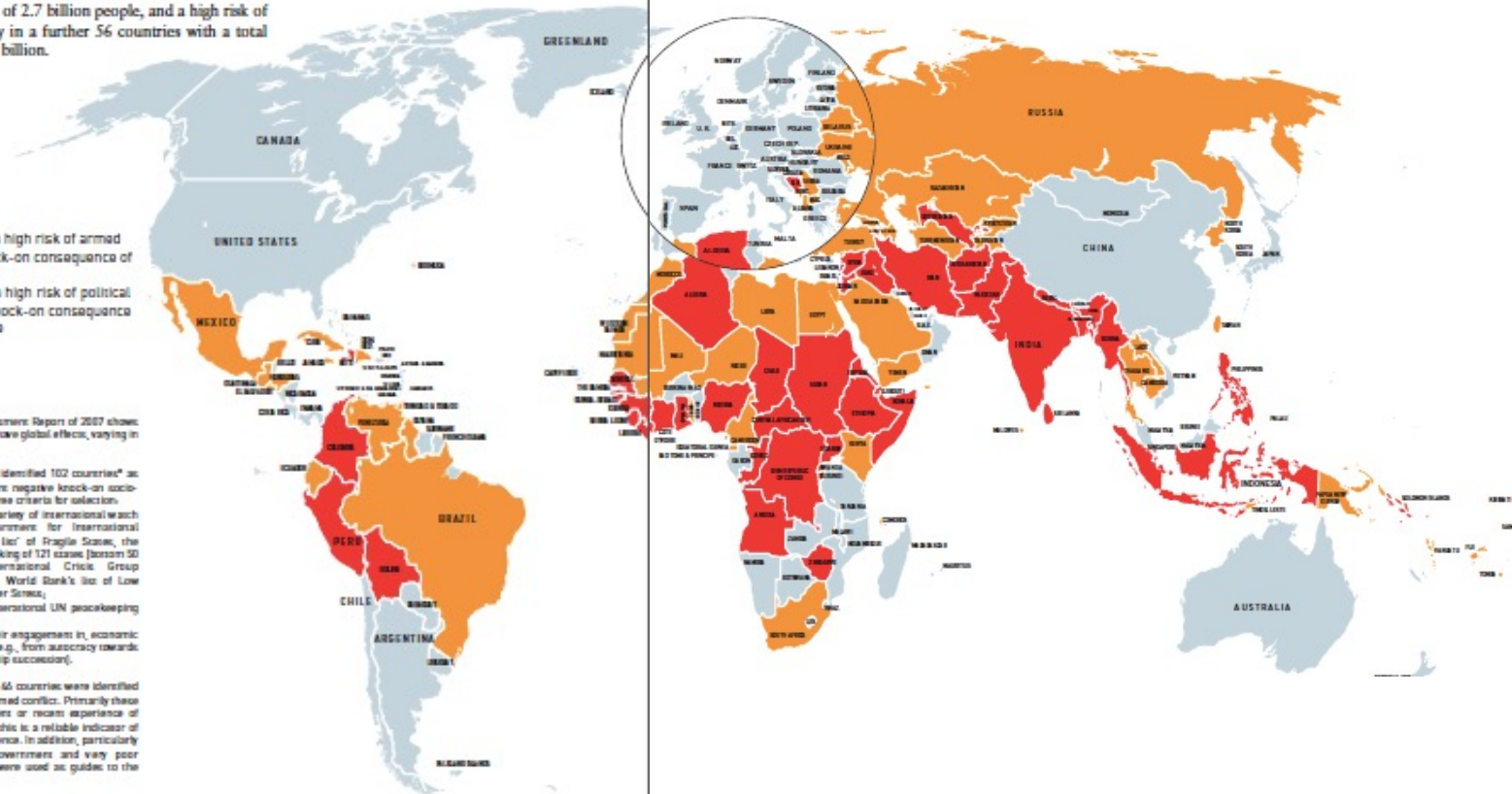


Photo Smith, Dan; Vivekananda, Janani (2007). *"A climate of conflict"*. *International Alert*

LEZIONE ALBERTO CORBINO

Environmental Conflicts



Environmental Conflicts

An environmental conflict is characterized by a **qualitative or quantitative** reduction of natural resources or commons (usable land, water, biodiversity, flora and fauna, minerals and finite sources of raw materials in general) in a given area and by the presence of forms of opposition or resistance from civil society (i.e. involved communities, social and environmental organization, local committees, stakeholders groups).

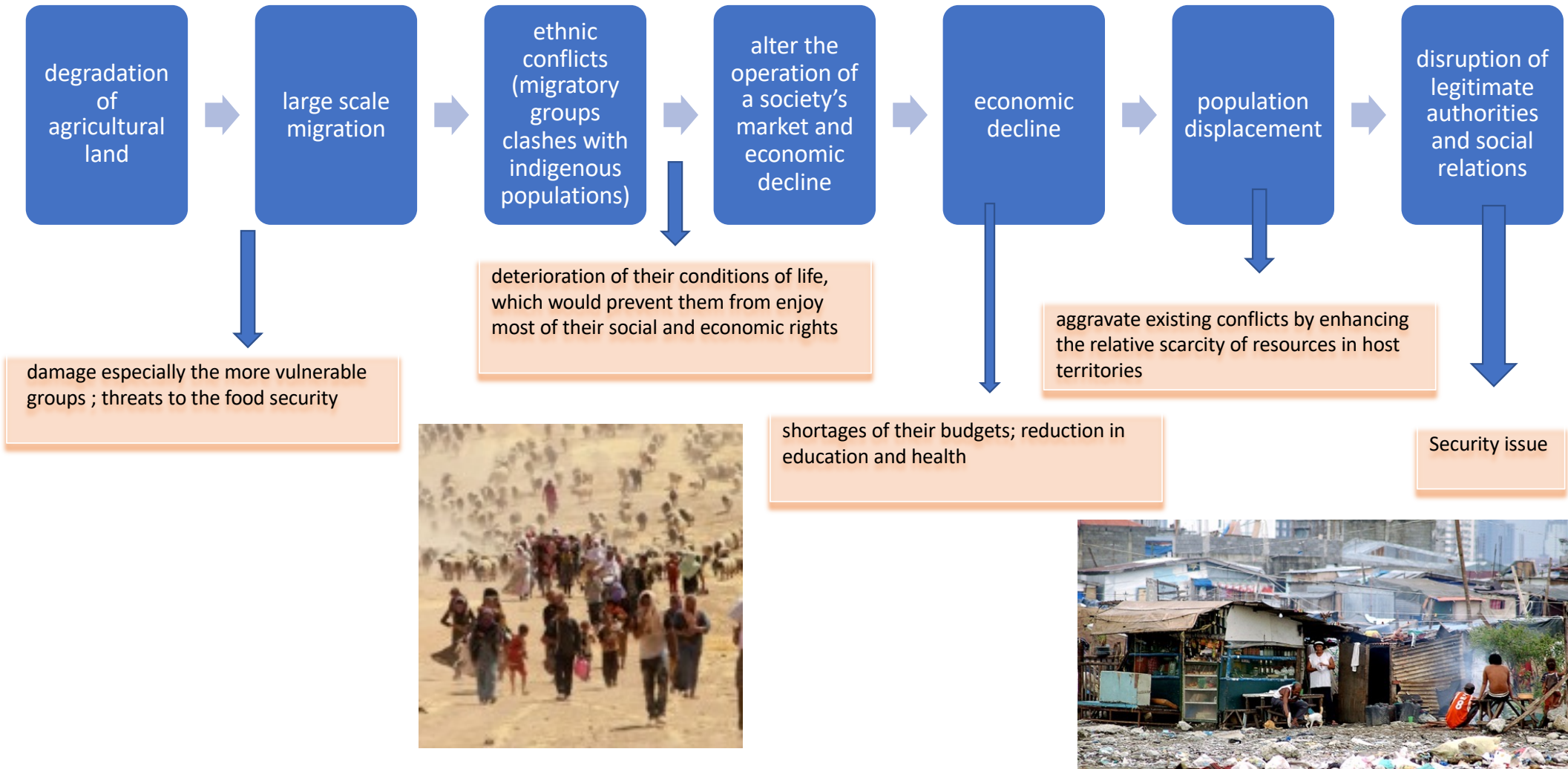
The **action repertoire** ranges from claim making, demonstrations, boycotts, strikes, legal actions, civil disobedience and international campaigns; and often involves together with local communities, also national or international networks

Taxonomy of conflicts

1. environmental conflicts generated by the socio-political consequences of environmental degradation (Libiszewski, 1992; Homer-Dixon, 1994);
 2. environmental conflicts for the distribution, control and use of environmental resources and goods (Martinez-Alier, 2002);
- + environmental conflicts as preventive action toward initiatives which are reputed to be harmful in terms of environmental justice



1. Scarcity conflicts



2. Ecological distribution conflicts

ecological distribution: "the social, spatial and inter-temporal patterns of access to the benefits obtainable from natural resources and from the environment as a life support system, including its 'cleaning up' properties. The determinants of ecological distribution are in some respects natural (climate, topography, rainfall patterns, minerals, soil quality and so on). They are clearly, in other respects, social, cultural, economic, political and technological" (Martinez-Alier)



instead of stressing the cause of environmental degradation, from which any kind of traditional conflict can emerge, here we try to grasp the environmental specificity of a conflict

ejatlas.org

Environmental Justice Atlas
 Home EJ Atlas Maps Login

World Map
 2974 cases reported

Word search

You can contribute to EJ Atlas and/or fill out our survey.

Legend

- Nuclear
- Mineral Ores and Building Materials Extraction
- Waste Management
- Biomass and Land Conflicts
- Fossil Fuels and Climate Justice/Energy
- Water Management
- Infrastructure and Built Environment
- Tourism Recreation
- Biodiversity conservation conflicts
- Industrial and Utilities conflicts

Filter

Browse Maps

- by Country
- by Company
- by Commodity
- by Type

Featured Maps

Pushed to the wasteland: Environmental racism against Roma communities in Central and South-Eastern Europe
 The ENVJUSTICE – EJAtlas team at ICTA - UAB in collaboration with European Environmental Bureau (EEB) and Human Rights activists releases a thematic map on

Fukushima Daiichi nuclear disaster, Japan

An earthquake and tsunami knocked out the Fukushima nuclear power plant cooling systems in March 2011, causing meltdowns in three reactors. The accompanying radiological release was rated at Level 7, the highest on the scale and on par with Chernobyl. [See more](#)

Nuclear

ACKNOWLEDGE EJ ejolt ENVIRONMENTAL JUSTICE icta

Legal notice / Aviso legal Leaflet | Tiles © Esri — Source: US National Park Service

Sistemi economici mondiali

<http://ejatlas.org/>



Businesses, rights and conflicts

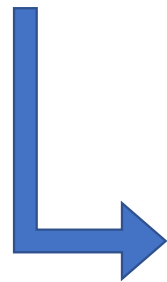
HR and the Environment

Environmental concerns as (almost exclusive) matters of nature (i.e. ecosystems) protection from “dangerous levels of pollution in water, air, earth and living beings; major and undesirable disturbances to the ecological balance of the biosphere; destruction and depletion of irreplaceable resources; and gross deficiencies, harmful to the physical, mental and social health of man [*sic*]” (U.N. 1972, par.3).

UN Special Rapporteur | on Human Rights and the Environment



Site: UNEP



Environmental Human Rights

J. Knox

Sistemi economici mondiali

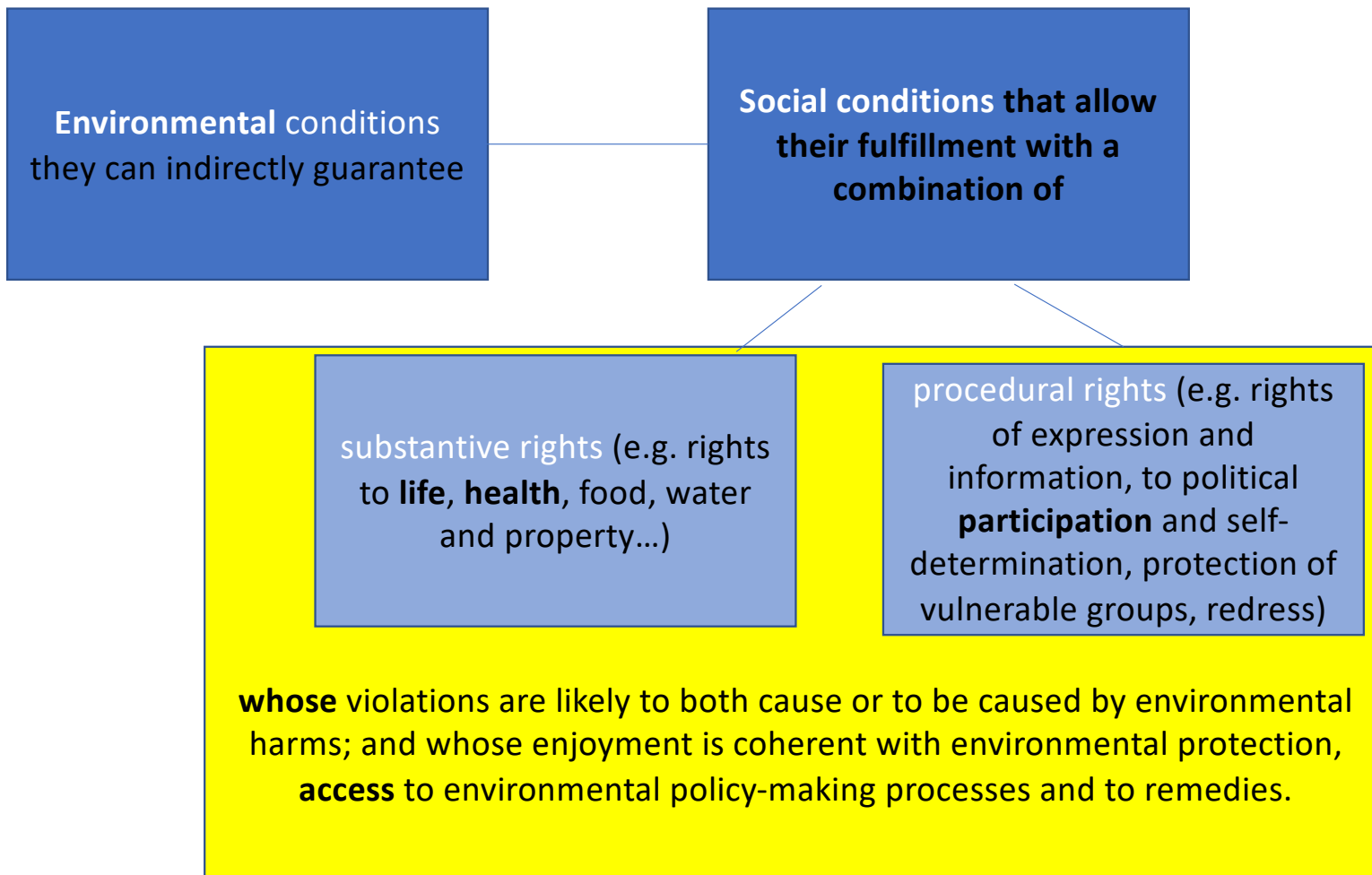
EHR: a controversial definition

- Beyond nature-related issues: “HR bodies have said that in order to protect rights to a healthy environment, to life, to health, to property, to an adequate standard of living, it is necessary to protect the environment; and to protect the environment, it is necessary to provide rights of access to information about the environment, to participation in environmental decision-making, and to remedies for environmental harm” (OHCHR, 2014)

→ *Substantive + procedural rights*

- “This effort... has identified two sets of rights closely related to the environment: (a) rights whose enjoyment is particularly vulnerable to environmental degradation; and (b) rights whose exercise supports better environmental policymaking. At the risk of oversimplification, many of the rights in the first category – that is, those at risk from environmental harm – are often characterized as substantive rights, while many of the rights in the second category – those whose implementation supports stronger environmental policies – are often considered procedural rights ” (A/HRC/22/43)

→ *the best way to respect the set of substantive rights is by respecting procedural rights (information, participation and access to remedy)*



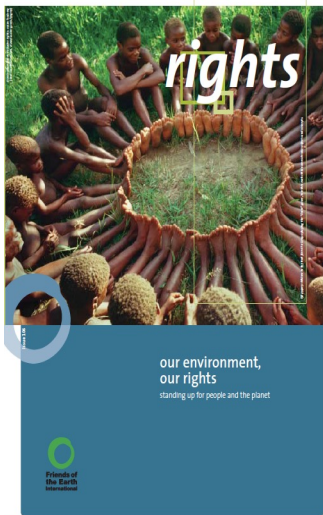
Influences on EHR definition:



Photo: Amnesty International

1. The HR Council mandate to J.Knox: take into account not only the views of “Governments, International bodies, national human rights institutions”, but also to consult “civil society organizations, the private sector and academic institutions”
2. Good practices carried out by non-institutionalized actors (activism and research)
3. HR defenders “She has received, and continues to receive, allegations indicating that security guards employed by oil and mining companies allegedly use death threats, acts of intimidation and attacks against defenders who denounce the perceived negative impact of the companies’ activities on the enjoyment of human rights by local communities” (A/65/223)

FoE's *Our environment, our rights* : How this characterises EHR



Category	EHR according to FoE
SUSTAINABLE SOCIETY	1. the right to a sustainable livelihood
	2. the right to a clean and healthy environment
	3. the right to water
	4. the right to food safety and security
INFORMATION PARTICIPATION AND SECURITY	1. the right to know
	2. the right to decide
	3. the right to resist
REDRESS	1. rights for environmental refugees
	2. the right to claim ecological debt
	3. the right to environmental justice

2 the right to a clean and healthy environment

island sickened by shell's toxic legacy

Friends of the Earth Curaçao

Curaçao is a small island in the Caribbean, with kilometers of coral reefs, sandy beaches, and semi-arid landscapes. In the interior, thanks to Royal Dutch Shell, Curaçao also has a toxic legacy that has plagued the island's people and environment for close to a century.

In 1953, a year before Curaçao acquired autonomous status within the Dutch Kingdom, the colonial government exempted Shell from all environmental obligations. The newly acquired autonomy was thus largely powerless against the biggest employer and polluter on the island.

In 1998, Shell began construction of an oil refinery on Curaçao, which lies just 90 kilometers off the coast of Venezuela. As Curaçao was a Dutch colony, this was a profitable arrangement for both the oil giant and the Dutch government. Venezuelan oil could be refined close to Venezuela but on Dutch territory, which was good for Shell's profits and did not risk giving the Venezuelans the means of refining their own oil.

In 1995, Shell abandoned the refinery before leaving, and following consultation with the Dutch government, the company secured a declaration of immunity from the government of Curaçao. The declaration stated that Shell would not be held liable for any environmental damage that its activities had inflicted on the island over the 70-year period of its operations. In return for this immunity, Shell paid the refinery to a government agency for less than US\$1, a deal that both parties portrayed to the public as a win-win situation that would boost local employment. The government then leased the refinery to the Venezuelan state oil company, PDVSA, for a modest fee.

the right to know

something smells around here...

European Investment Bank ignores right to know

Friends of the Earth Slovakia

Since 1999, people living in the Slovakian town of Ruzomberok have questioned plans for modernization and production increase at the Neusiedler SCP paper mill. The World Bank considered financing the project, but pulled out. In 2003, citizens were surprised when the European Investment Bank (EIB) appeared on the scene with a 64 million Euro loan to the paper mill. Their ignorance was understandable: the EIB disclosed information about the loan very late, and only through its website rather than directly to the public.

Furthermore, the EIB approved the loan request despite the fact that several ongoing legal proceedings submitted by affected local citizens concerning violations against their rights to public participation had not yet been settled. The local NGO has requested that SCP increase production only under two conditions: the installation of an air quality monitoring system, and the undertaking of a serious analysis of the local health situation both before and after project implementation.

The Ruzomberok case is one in a long list of EIB loans that have been made with neither transparency nor public participation. Ironically, the Bank itself portrays the project as a positive one, and had promised that "significant environmental improvements" would result.

The environmental pollution caused by the SCP plant in Ruzomberok is a main reason for the town's status as a highly polluted area. The town and surrounding areas are well known throughout the Slovak Republic for the unbearable stench caused by the plant's emissions. In 1999, more than 3,000 inhabitants signed a petition against the company's long-term pollution of their local environment. In spite of serious health problems in the town and

right to claim ecological debt

reclaiming submerged rights

communities seek compensation for impacts of Yacretá mega-dam

Friends of the Earth Paraguay

Yacretá is one of the largest and most complex hydroelectric projects in the world, and a striking example of the environmental and social rights violations caused by large dams. Affected communities in Paraguay and Argentina are currently claiming the right to compensation and remediation for the extensive damage done to their lives and environments.

Construction of the 67-kilometre dam across the Paraná River, joining Argentina and Paraguay, began in 1983 with funding from the World Bank and Inter-American Development Bank. Ever since, the project has been plagued with delays, corruption, disputes, political instability and abuse of power. Attempts by civil society to participate in the decision making process have been met with strong institutional resistance.

by violation of bank policies. Yet to date, no credible action has been taken. In 2002, a local community organization presented a new claim highlighting the ongoing violations of bank policies; the reports of the investigations on this second claim have not yet been issued.

Friends of the Earth Paraguay is calling for the Yacretá Binational Entity to compensate for the damages that have been caused by the dam. They propose the implementation of a debt payment mechanism to finance compensation, the mitigation of past damages, and reinvestment in affected communities. They are calling for the development of programs to restore watersheds and key ecosystems, to implement sustainable agriculture and to reinvestigate towns and cities. They also want international financial institutions and governments to create a 'remedy and reinvestment fund' in order to restore the quality of life of affected people.

the right to resist

blood and oil in the Ecuadorian Amazon

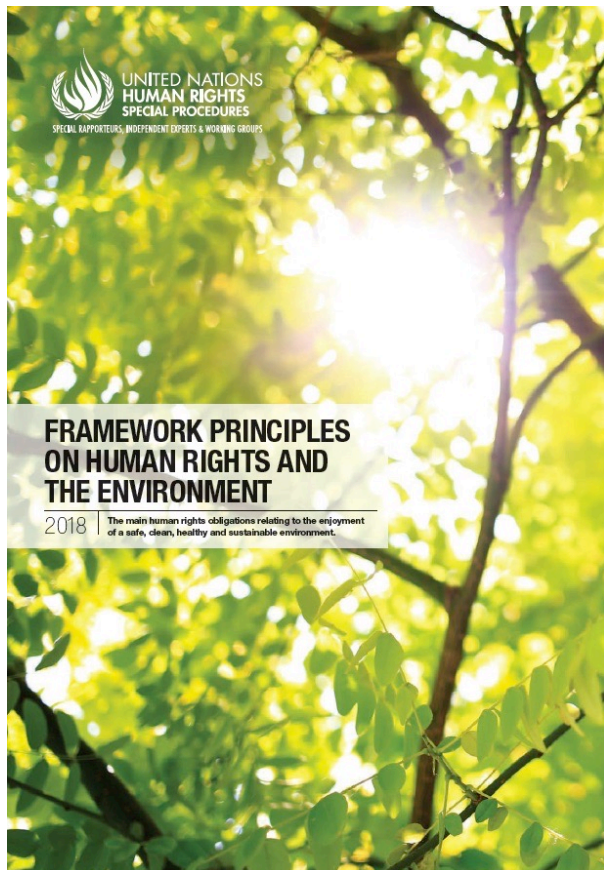
Quichua rights upheld by inter-american court

Sarayaku, which means "river of maize", is home to some 1,000 people who live amidst 135,000 hectares of pristine forest in the Ecuadorian Amazon. However, oil flows under the territory of the Quichua people, and as a result their lives and livelihoods are increasingly under threat from transnational corporations and the Ecuadorian government.

In December 2003, a group of people from Sarayaku on their way to a peaceful demonstration in protest of oil activities within their territory were viciously attacked by aggressors. Shortly afterwards, the Inter-American Commission on Human Rights extended the Precautionary Measures it had previously granted in favor of Sarayaku for an additional six months. Quichua legal counsel Jose Serrano observed that "the extension of the precautionary measures ... serves to call attention to the Ecuadorian government's severe and systematic practice of violating indigenous peoples both within Ecuador and globally, the Quichua are not ready to let down their guard. Even with the world's eyes upon them, their people continue to suffer from aggressions as well as repeated public threats by the Ecuadorian authorities to militarize their territory in order to allow the Argentinean oil company CGC to take control of their lands and livelihoods. This case may be only the beginning: in July 2004, the oil-thirsty Ecuadorian government declared a "total opening" of the southern Ecuadorian Amazon for the oil industry.

more information:
www.sarayaku.com

"Many states ignore or are unaware of international and regional conventions and regional agreements, giving free reign to transnational corporations to advance destructively and with impunity" (FoE, 2004).



UN environment THE ENVIRONMENTAL RIGHTS INITIATIVE

PROMOTE | PROTECT | RESPECT ENVIRONMENTAL RIGHTS

UN Environment has been working with its human rights and the environment for several decades. In support of fulfilling the human rights obligations to protect, promote and improve the environment, UN Environment provides to the international human rights and environment and the environmental community, with focus on environment and human rights and cooperation, technical assistance, training and knowledge for development.

NOW UN ENVIRONMENT'S WORK ON ENVIRONMENTAL RIGHTS INCLUDES THE FOLLOWING:

- ESTABLISHING ENVIRONMENTAL RIGHTS**

UN Environment works with the Special Rapporteur on Human Rights and the Environment and the UN Office of the High Commissioner for Human Rights to enhance the capacity of states and citizens to understand and operationalize the linkages between human rights and the environment.

FOR EXAMPLE:

 - Since 2012, UN Environment has supported special Rapporteurs' consultations and expert advisory on human rights and the environment. This work has included the identification of legal practices on human rights and the environment, identification of the linkage between human rights and climate change, and landlessness and the rights of the child.
 - Since 2016, UN Environment has led a joint global effort with the Special Rapporteur and other partners to conduct the global survey on institutional environmental rights and to evaluate the impact of these rights on environmental protection. Over 100 cases have been reviewed in South Africa, Japan, China, Italy, and the United States.
 - UN Environment supported regional negotiations on a Latin American and Caribbean Agreement on Access to Information, Public Participation and Access to Justice in Environmental Decision-Making and its adoption in San Jose, Costa Rica in March 2018.
- INTEGRATING INTER-AGENCY COOPERATION ON ENVIRONMENTAL RIGHTS**

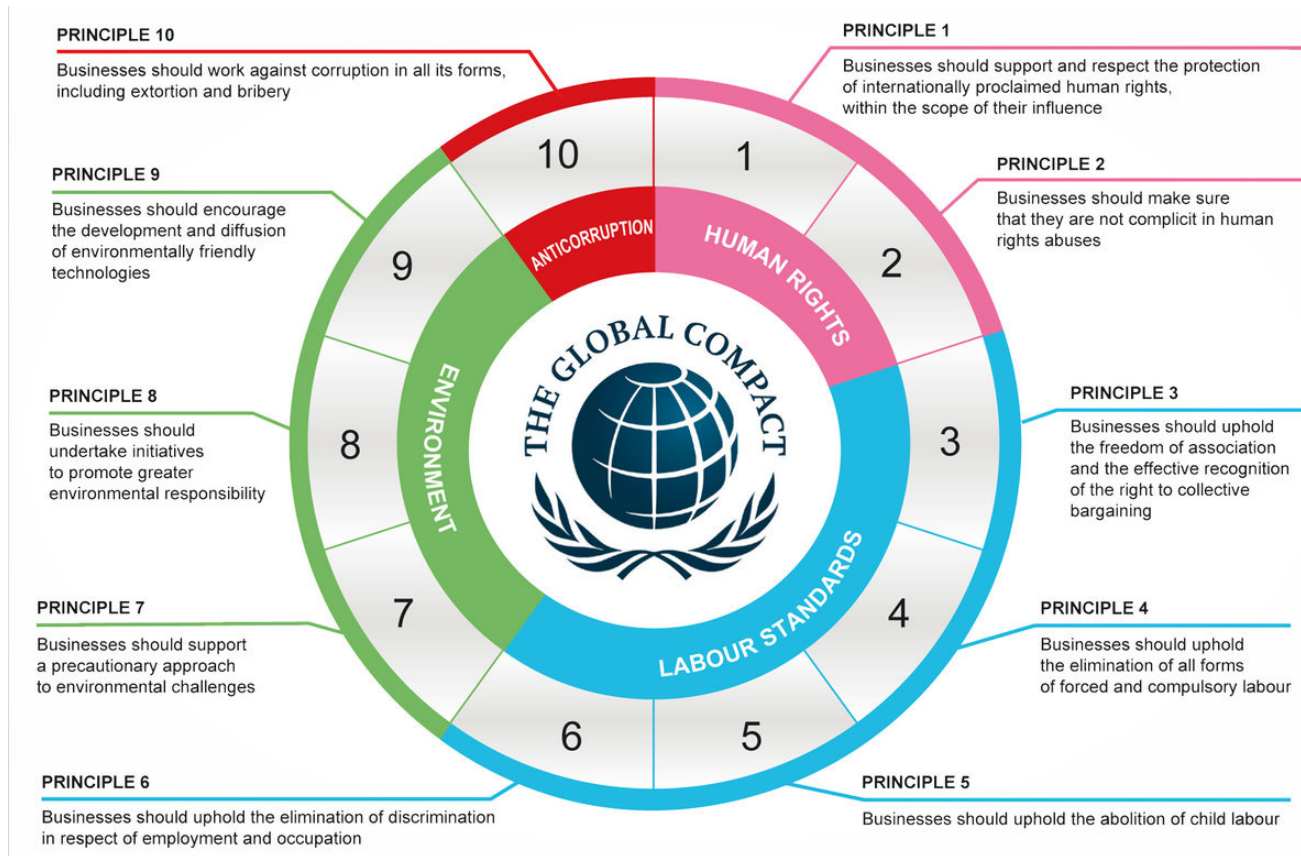
FOR EXAMPLE:

 - In 2016, UN Environment convened a symposium, "People's Dialogue on Human Rights and the Environment," jointly organized with the UN Office of the High Commissioner for Human Rights.
 - In 2017, UN Environment and the UN Office of the High Commissioner for Human Rights jointly organized a meeting on Environmentally Related Rights including with a side event on Human Rights and Pollution during the 68th session of the UN Environment Assembly.
- PULLING THE HUMAN RIGHTS AND ENVIRONMENTAL RIGHTS**

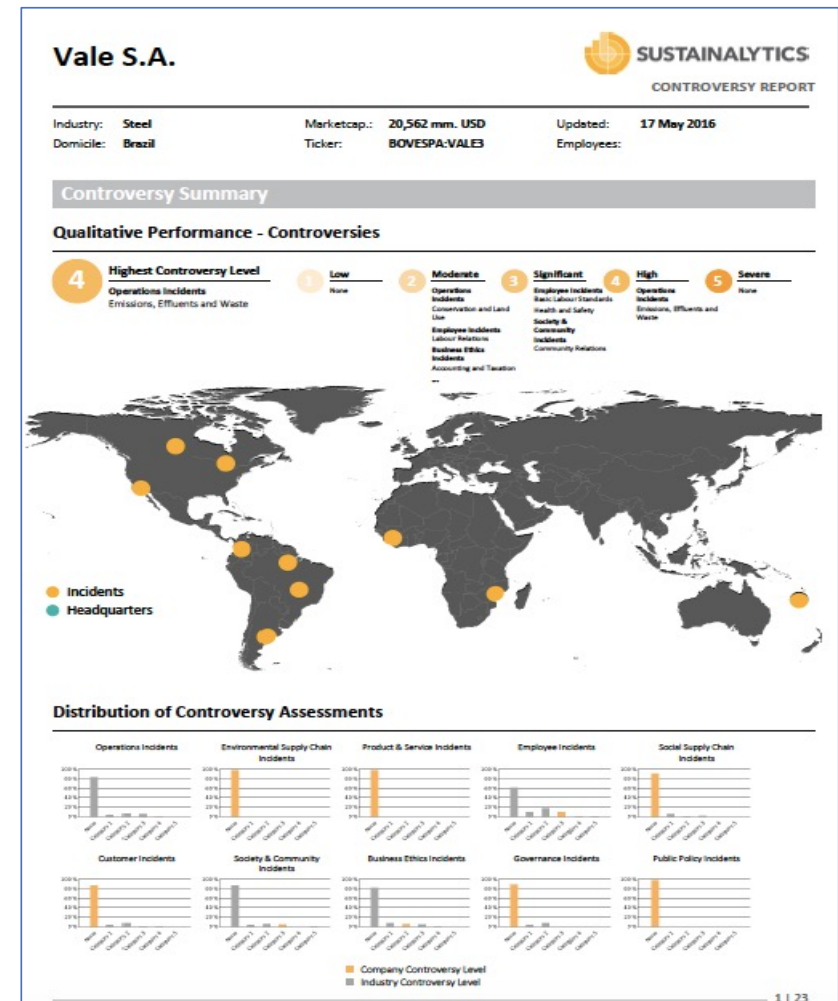
UN Environment has partnered with other organizations to produce publications, resources, and other educational material with findings and recommendations for states and national-level working.

 - UN Environment developed a series of human rights and the environment.
 - UN Environment developed a series of human rights and the environment.
 - UN Environment developed a series of human rights and the environment.
 - UN Environment developed a series of human rights and the environment.

Sistemi economici mondiali

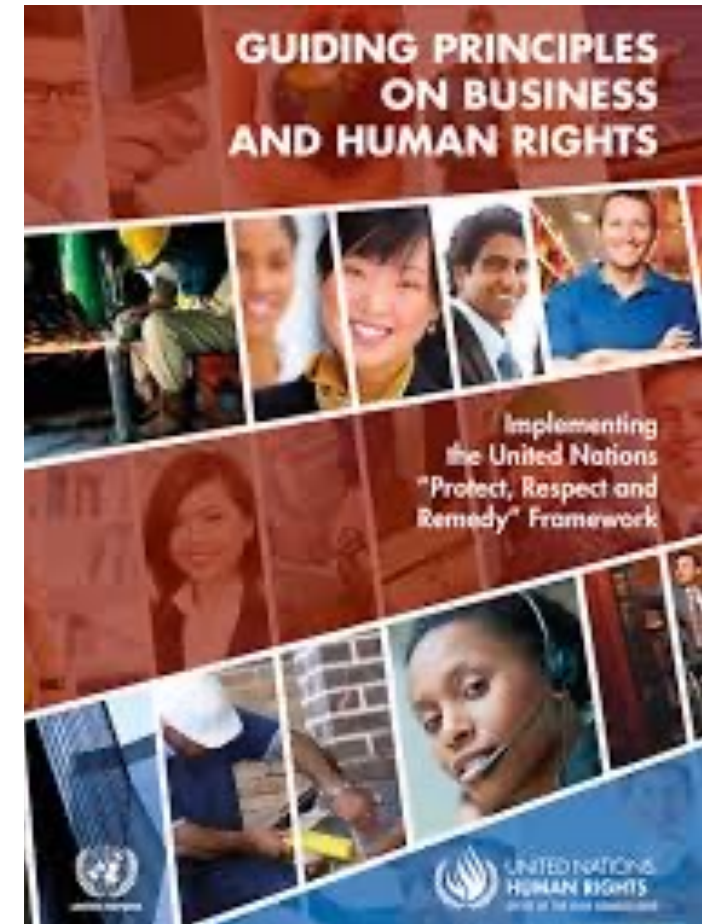


- Environmental Human Rights challenge global governance actors (most notably private companies) to reconsider their social and environmental commitment as this needs to go beyond the respect for national or regional environmental regulations, and rather requires to meet a variety of intertwined expectations of different stakeholders, linking together society, democracy and nature-related issues.
- In consideration of the global governance framework described by EHR and related UN work, can we claim that business companies' (including MNEs and NEs) involvement in environmental conflicts, disputes and controversies, in many cases (despite not all of the cases) is not just a matter of disagreement upon development trajectories (as suggested by most of business ethics literature), but rather a matter of EHR(alleged) violations business companies can be liable of?



open issues

- States have an obligation to adopt a legal framework that protects against environmental harms interfering with the enjoyment of HR, and this interference includes harms caused by corporations and other non-state actors
- U.N. has no authority to control or regulate private companies' behaviors: only voluntary codes of conduct, environmental standards(EMSs or ISO 14000 standards), sector-specific programs, multi-stakeholder partnership (Johannesburg 2002), e.g. Global Compact

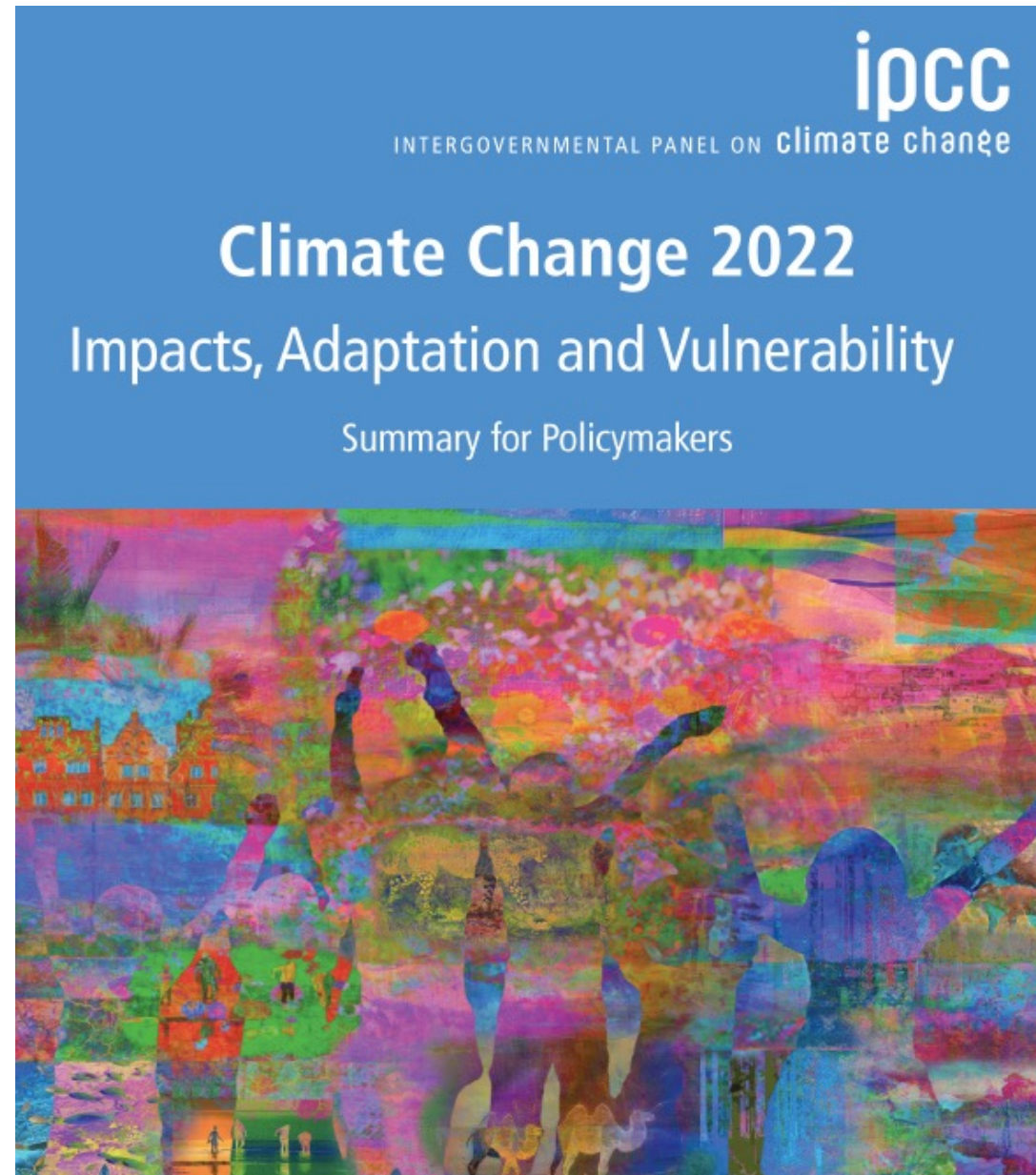


Sixth Assessment Report. Impacts, Adaptation and Vulnerability - IPCC

(270 authors from 67 countries assessed the impacts of climate change on ecosystems and human communities at global and regional levels)

<https://youtu.be/25QIQVnL15M>

https://www.repubblica.it/green-and-blue/2022/02/28/news/rapporto_ipcc_cambia_menti_climatici_2022_impatti_adattamento_vulnerabilita-339629259/



Summary for Policymakers <https://www.ipcc.ch/report/ar6/wg2/resources/spm-headline-statements/>

Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability. Some development and adaptation efforts have reduced vulnerability. Across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected.

...Climate change impacts and risks are becoming increasingly complex and more difficult to manage. Multiple climate hazards will occur simultaneously, and multiple climatic and non-climatic risks will interact

...adaptation progress is unevenly distributed with observed adaptation gaps

...The effectiveness of adaptation to reduce climate risk is documented for specific contexts, sectors and regions (*high confidence*) and will decrease with increasing warming

...Climate resilient development is enabled when governments, civil society and the private sector make inclusive development choices that prioritise risk reduction, equity and justice

...Safeguarding biodiversity and ecosystems is fundamental to climate resilient development

...It is unequivocal that climate change has already disrupted human and natural systems.



Exercise:

Main concerns from Factsheets

<https://www.ipcc.ch/report/ar6/wg2/about/factsheets>

EXERCISE

Select a set of conflicts by Country or Company and identify commonalities among them including (still not limited):

- Main issues at stake
- Geographical location (macro-regional areas) for company-related conflicts; main companies involved (kind or name) for country-related conflicts
- Involvement of public institutions
- Principal impacts (environment, health, social...)
- Conflict outcomes
- Other common traits