

Environmental governance

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Natural resources and the environment should be seen as a global public good, belonging to the specific category of goods that are divided up when they are shared. ^[3] The global nature of these goods stems from the presence of each of the constituent elements that form an integrated system. This means that everyone can benefit from the atmosphere, climate and biodiversity, to name a few, whilst the entire planet suffers the dramatic consequences of global warming, reduced ozone layer and the disappearance of species. This planetary dimension requires a collective management approach.

A public good is non-rivalrous — a natural resource acquired by one person can still be acquired by someone else — and non-excludable — it is impossible to prevent someone consuming the good. Nevertheless, public goods are recognized as beneficial and therefore have value. The notion of a global public good thus emerges, with a slight distinction: it covers vital necessities that must not be under the control of one person or state.

The non-rivalrous character of the good therefore calls for a management approach that is neither competitive nor plundering, free market characteristics which would lead to its extinction. It also entails attributing an economic value to the resource, since the lack of such value would lead to the same result. Water is possibly the best example of this type of good.

However, environmental governance as it currently stands is far from meeting one or more of these imperatives. The need to deal with the complex character of environmental issues calls for the adoption of coherent multilateral management by a great variety of stakeholders. However, the global community has proved incapable of meeting this challenge and environmental governance is currently victim to a great many afflictions. Thus, “despite a great awareness of environmental questions from developed and developing countries, there is environmental degradation and the appearance of new environmental problems. This situation is caused by the parlous state of global environmental governance, wherein current global environmental governance is unable to address environmental issues due to many factors. These include fragmented governance within the United Nations, lack of involvement from financial institutions, proliferation of environmental agreements often in conflict with trade measures; all these various problems disturb the proper functioning of global environmental governance. Moreover, divisions among northern countries and the persistent gap between developed and developing countries also have to be taken into account to comprehend the institutional failures of the current global environmental governance.” ^[4]

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Definition

Environmental governance is “the whole range of rules, practices and institutions related to the management of the environment in its different forms (conservation, protection, exploitation of natural resources, etc.).”^[5] A further definition describes it as “all the processes and institutions, both formal and informal, that encompass the standards, values, behaviour and organizing mechanisms used by citizens, organizations

and social movements as well as the different interest groups as a basis for linking up their interests, defending their differences and exercising their rights and obligations in terms of accessing and using natural resources.” ^[6]

At the international level, global environmental governance is “the sum of organizations, policy instruments, financing mechanisms, rules, procedures and norms that regulate the processes of global environmental protection.” ^[7]

Environmental Issues

Factors resulting in environmental degradation

Economic growth – The development-centric vision that prevails in most countries and international institutions advocates a headlong rush towards yet more development, whereby the development of increasingly advanced technologies and more efficiently-scaled economies would help to protect the environment against the damage caused by the very same development. Environmental economists, on the other hand, point to a close correlation between economic growth and environmental degradation, arguing for qualitative development as an alternative to growth. There are those, particularly within the alternative globalization movement, who maintain that it is feasible to change to a degrowth phase without losing social efficiency or lowering the quality of life.

Consumption – The accelerated growth of consumption and the cult of consumption, or consumerist ideology, is the major cause of economic growth. Over-development, seen as the only alternative to poverty, has become an end in itself. The means for curbing this growth are not equal to the task, since the phenomenon is not confined to a growing middle class in developing countries, but also concerns the development of irresponsible lifestyles, particularly in northern countries, such as the increase in the size and number of homes and cars per person.

Destruction of biodiversity – The complexity of the planet’s ecosystems means that the loss of any species has unexpected consequences. The stronger the impact on biodiversity, the stronger the likelihood of a chain reaction with unpredictable negative effects. Despite all the damage inflicted, a number of ecosystems have proved to be hugely resilient. Environmentalists are endorsing a precautionary principle whereby all potentially damaging activities would have to be analyzed for their environmental impact.

Population – Forecasts predict 8.9 billion people on the planet in 2050, representing an increase of 41% from current numbers. This is a subject which primarily affects developing countries, but also concerns northern countries; although their demographic growth is lower, the environmental impact per person is far higher in these countries. Demographic growth needs to be countered by developing education and family planning programmes and generally improving women’s status.

Environmental governance crises and challenges

The crisis caused by the accelerated and probably irrevocable impact of human activities on nature calls for collective responses by international institutions, governments and citizens. Governance, considered as the pluralist management of

policies and social and environmental actors, intends to meet this crisis by pooling the experience and knowledge of each of the social agents and institutions concerned.

The increasing scale and gravity of environmental problems in terms of climate change, loss of biological diversity and degradation of ecosystem services threaten to block any possible attempts at a solution by the various stakeholders, and are already restricting the prospect of economic development in many countries and regions. Environmental protection measures remain insufficient in the face of the warnings of the scientific community. The necessary reforms represent a slow process that requires time, energy, money and, above all, diplomatic negotiation. And a serious environmental crisis has proved incapable of generating a unanimous response from all countries. Persistent divisions are slowing down progress towards a properly organized global environmental governance.^[8]

The question is whether an alternative to the current production system is needed to solve the environmental crisis. Does the current system contain the solutions for its own preservation? Can biotechnology and sustainable development be considered as solutions? The architecture of the regulations for international environmental protection reflects these questions. Rio de Janeiro, The Hague, Nairobi, Stockholm, Montreal, Kyoto, Johannesburg, Cartagena and Bali have all hosted a panoply of international environmental actors and states affected and concerned in one way or another by the environmental crisis. These conferences and agreements and resulting regulations indicate the balance of power within a context containing a multitude of interests and contradictory standpoints.

Nature pays no heed to social and political barriers, and a number of environmental factors for change such as contamination and climate change are indifferent to borders, states and themes. The global nature of the crisis therefore cancels out the effects of measures adopted unilaterally by a national government or sector-specific institution, irrespective of the degree of power it may enjoy. There is thus a need to invent and apply permanent mechanisms for inter-sector cooperation from the holistic viewpoint of sustainability. Cooperation is necessary between actors and institutions working on environmental issues and in areas including international trade, sustainable development and peace.

Regarding management levels, continental and global levels on the one hand and local levels on the other are becoming springboards for the development of environmental governance, over and above the nation state. The main concern, however, remains how to make intermediate levels, regional and national, into effective intermediaries between local initiatives and global decisions.

Some of the obstacles and challenges facing environmental governance include:

- The impossibility of curbing or reversing the trend for harming natural resources. At continental and global levels, numerous multilateral agreements have been signed and ratified over the past 30 years, but implementing them poses a serious problem at the national, regional and international levels whilst environmental degradation continues.
- Various sources, some of them within the United Nations Environment Programme (UNEP), maintain that lack of political will is at the root of the

governance crisis. By persistently showing a lack of political will for solving environmental problems and seeking instead to develop policies in favour of the sustainable use of the earth's resources, environmental regulations produce effects that include lack of funding, imbalance and absence of links with the economy, and the limited application of Multilateral Environment Agreements (MEAs).

- Financial resources are limited and direct investment in the environment insufficient. In concrete terms, although the UNEP, the main UN body for environmental issues, has obtained noteworthy results during its mandate, the lack of long-term stable financing hinders its chances of tackling new challenges.
- Uncoordinated methods at the global, regional and national levels, alongside a multiplication and fragmentation of mandates, has exacerbated the situation. Environmental governance is currently characterized by a stark lack of integration of sector policies, inadequate institutional capacities, ill-defined priorities and unclear operational objectives: in short, bad governance.
- This lack of coordination is not confined to the United Nations system. It also exists in governments, the private sector and civil society. Regional and international cooperation is difficult, since it arises only from occasional action taken by stakeholders without any shared vision or regulation.
- There is increasing recognition that environmental issues are interdependent, not only with development and sustainable economic growth, but also with trade, agriculture, health, peace and security. Despite this fact, there is no permanent cooperation with stakeholders managing these questions.
- In concrete terms, there is an imbalance between international environmental governance and other international trade and finance programmes. The lack of political will has prevented the environmental question being incorporated into the key domain of the macro economy, particularly in the World Trade Organization (WTO), whilst market forces continue to generate errors and distortions that speed up environmental degradation and make it difficult to apply environmental decisions.
- As far as the Global Environment Facility (GEF) is concerned, the organizations running projects financed by the fund need more credit. There is also a need for more specific regulation and a link between the UNEP, United Nations Development Programme (UNDP) and the World Bank on one side and MEAs on the other.
- The obligations undertaken as part of MEAs on the national level are usually difficult to comply with due to the lack of capacity. Many governments feel overwhelmed by the proliferation of standards involved in presenting reports, leaks made by technical experts and the multiplication of international meetings. As mentioned above, this is reflected in inadequate application of MEAs.
- Neither the gender perspective nor the interests of equity are included in the management of environmental degradation.
- Despite the reasonable popularity of certain issues related to the environmental crisis, there is no real impact on public opinion in terms of environmental governance organization or decision-making. [\[9\]\[10\]\[11\]](#)

International environmental governance, fragmented and inefficient, is the subject of several debates which are preventing a consensus on the analysis of the system's limits being reached and the best solution being found. The IDDRI believes that there is a

conflict between two visions: rejection of multilateralism in the name of efficiency and protection of national interests, and the promotion of international law and the concept of global public goods. Other opinions see the apparent fragmentation as a result of the complex nature of environmental problems. Those responsible for the environment, without taking specific action, need to confront scientific uncertainties and the incompatibilities between the ethical and political ramifications of the [precautionary principle](#).

At the local level, the [local Agenda 21](#) programme has been implemented in over 7,000 communities, both the product of and catalyst for major growth in popular ecological awareness over recent years, even if the result is as yet insufficient to reduce the impact of human activity on the environment. ^[12] On the other hand, it is worth noting that environmental problems, including global-scale problems, do not necessarily require global solutions. Marine pollution can be tackled regionally, and the deterioration of ecosystems locally. Certain global problems, such as climate change, could benefit from actions applied at the local and regional levels. ^[13]

In terms of the evolution of the governance process itself, it would be true to say that “sustainability and environmental protection is an arena in which innovative experiments with new hybrid, plurilateral forms of governance, along with the incorporation of a transnational civil society spanning the public-private divide, are taking place.” ^[14]

The terms “participative” or “decentralized environmental governance” can be used when decision-making shifts to the grassroots. They refer to models that work at the local level, using multipartite systems for decision-making based on consultation between, for example, civil society, public institutions, citizens and private actors. Decentralized environmental governance then becomes a “new institutional framework, [wherein] decision-making regarding access to and use of natural resources has become increasingly decentralized.” ^[15] Pulgar Vidal identifies four factors that can be used to develop these processes:

- formal and informal regulations, procedures and processes, such as consultations and participative democracy;
- social interaction between participant groups which can arise from external factors such as participation in development programmes proposed by public institutions or from the reaction to certain unjust situations;
- regulating or correcting certain social behaviours to transform an individual question into a public matter and be able to collectively negotiate progress towards sustainable and acceptable agreements;
- horizontality at the level of the social group’s structure, decision-making mechanism and mechanisms for relations with external actors.

According to the same source, the key conditions for developing decentralized environmental governance are the following:

- accessing social capital, including the reassessment of local knowledge on natural resource potentials, legitimate local leaderships, a common vision based on discussions and negotiations, and education and training;

- participation and information access: ensure democratic access to information and decision-making based on adequate and legitimate information;
- government presence: on local levels as a creator, promoter or recipient of decentralized environmental governance; as a facilitator of access to natural resources, or as policy maker;
- institutional framework: the need to establish informal mechanisms that shape a new institutional framework which favours decentralized environmental governance and creates forums for social interaction and definition of agreements acceptable to the stakeholders. ^[16]

The legitimacy of decisions taken depends not only on the participation rate of the population concerned by the grassroots movement, whether high or low, but also on the representativity of the actors participating in consultation mechanisms. The problem of representativity applies to both local and intermediate levels, especially the state level. At the local level, participation of all stakeholders (for example, NGOs, communities, local government and the ministry of the environment for the country in question) contributes to the success of an environmental governance process, whilst the exclusion of some of these stakeholders makes it more difficult. ^[17]

At the state level, in northern countries and all countries attempting to promote governance with multiple stakeholders, environmental management is conducive to the creation of round tables and approved committees. Environmental management is becoming one of the most innovative areas, if not the most innovative area, in terms of governance. This was recently illustrated in France, with the *Grenelle de l'environnement* ^[18] process, whereby:

- different actors are included (e.g. the state, political leaders, unions, businesses, not-for-profit organizations and environmental protection foundations);
- stakeholders' interact with the legislative and executive powers in office as advisory, but nevertheless indispensable, bodies;
- the actors in the process work on integrating the institutions concerned with other issues, particularly the Economic and Social Council, and form an environmental pressure group in chambers of commerce, agriculture, engineering and technology, etc., which in turn participate in the process for creating an environmental governance model;
- they seek to link up their action with the development of environmental management at regional and local levels.

Nonetheless, the problem of representativity remains key, and an election that is far from impartial rather than transparent, fair and representative of the actors taking part in the consultation process, called by a government or institution, may have undesirable consequences on the legitimacy of the process. The same situation applies to environmental issues if they have no impact on the economic agenda via appropriate representation within the institutions in charge of economic affairs. ^[19]

“In southern countries, the main obstacle to the integration of intermediate levels in the process of territorial environmental governance development is often the dominance of developmentalist inertia in states' political mindset. The question of the environment has not been effectively integrated in national development planning and programmes. Instead, the most common idea is that environmental protection curbs economic and

social development, an idea encouraged by the frenzy for exporting raw materials extracted using destructive methods that consume resources and fail to generate any added value.”^[20] In the face of this attitude, citizens, encouraged by certain civil society actors (see note above) and sometimes even their own states, are developing empowerment strategies that may help to ease poverty and provide an economic boost through sustainable development.

Environmental Governance Issues

Ecological Debt and Environmental Justice

People the world over are seeing their fundamental rights restricted due to environmental devastation. From this point of view, the right to a healthy and safe environment is a fundamental human right that cannot be refused on the basis of race, class, ethnic group or position within the global economic system. Environmental deterioration and the exploitation of the planet’s resources by industrialized countries are therefore illegitimate and represent a breach of human rights since they destroy other people’s chances of a decent life.

The north remains highly dependent on southern countries for maintaining the living standards of its people. Without being able to use the land to pasture their pigs and cows, northern countries would not be able to continue feeding their populations as they have done until now. The same problem applies to fruit and vegetables. However, the question does not hinge solely on an unequal distribution of cultivable land throughout the world, but also on the consequences that monoculture (agriculture for export) usually has in terms of ecological damage.

The same applies to energy supplies: gas, oil and even the uranium for nuclear energy that are obtained in the southern hemisphere. The problem does not spring from the fact that these countries rely on the south. If they pay fair prices and allow southern countries to decide how and what they sell as a function of their own needs, such trade could be positive. Mutual dependence is not a bad thing in itself. But what actually happens is that southern countries do not set prices or control the environmental and social conditions that govern the exploitation of their own resources. Worse still, the northern hemisphere continues to dominate the global economy and trade rates. The colonial era is not yet over, a sombre page in the history of humanity has not yet been turned.^[21]

Soil Deterioration

Soil and land deterioration is an anthropic process that has a negative impact on the land’s capacity and efficient functioning within an ecosystem in terms of accepting, storing and recycling water, energy and food. It occurs when the soil loses major properties due to the unsuitable use of farming machines and equipment. The primary cause of deterioration is always the most visible: the reduced production of plant biomass. This problem also makes it difficult for the organic matter deposited on the soil to be incorporated due to the damage done to the fauna and microflora.

The main consequence of deterioration is that it makes plant rooting and access to nutritive elements difficult, whilst the quantity of water retained by the soil diminishes. In such conditions, fertilizers become less efficient, requiring greater quantities to achieve the same level of production. The increasing difficulties faced by farmers often results in farms being abandoned, which increases the risk of desertification of the areas concerned.

Land deterioration causes farming productivity to drop in many areas of the world. The causes are mainly anthropic and linked to farming. They encompass: deforestation, consumption of the soil's nutritive elements by agriculture, urbanization, irrigation and pollution. It is important to point out that desertification is soil deterioration that occurs in the planet's arid, semi-arid and sub-humid regions. These non-irrigated areas cover 40% of the earth's surface area, endangering over a billion people who depend on these lands for their survival

The [Alliance 21's Proposal Paper "Save our Soils to Sustain our Societies"](#) proposes several alternative solutions in the following domains:

- soil rehabilitation as part of conventional and popular education;
- introduce incentives and enforce regulations and laws based on a broad participatory process involving all stakeholders, including the policy makers and authorities, producers and land users, the scientific community and civil society;
- establish a set of binding rules, such as an international convention on the sustainable use of soil and on land management;
- set up mechanisms and incentives to facilitate transformations in the different activities in relation to soil, in order to underline the primacy of sustainable soil management;
- gather and share knowledge about soil conservation and improvement;
- mobilize funds nationally and internationally for soil conservation, restoration, improvement and creation.

Climate Change Management

The anthropogenic theory predicts that global warming will continue apace with greenhouse gas (GHG) emissions. The International Panel on Climate Change (IPCC) indicates that "most of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations." ^[22]

Given the potential effects on human health and the economy, and their impact on the environment, global warming is a subject of major concern. We have observed a number of phenomena linked to global warming. The decrease in snow cover, rising sea levels and meteorological changes are global warming consequences that can affect human activities and ecosystems.

The goal of combating climate change led to the signing of the [Kyoto Protocol](#), an agreement encouraging the reduction of polluting emissions, mainly CO₂. But the protocol has been accused more than once of being inequitable, since traditionally the rise in emissions is associated with economic development, which means that following the protocol would primarily impact less developed regions. The protocol introduced

legally based principles of solidarity between states, such as the principle of sharing the load. ^[23] The third follow-up meeting and 13th climate summit (CoP13) took place in Bali, Indonesia in December 2007, focusing on questions linked to intensifying measures after 2012. Agreement was reached on a two-year process, or Bali Road Map, with the goal of establishing post-2012 regulations at the XV Climate Change Conference (also known as the 15th climate summit, or CoP15) in December 2009, in Copenhagen, Denmark.

Two decades on from the [Brundtland report](#), however, there has been no improvement in the key indicators highlighted. CO₂ emissions have risen by 35% since 2000, when the Kyoto agreement was signed.

One of the most important comprehensive solutions in the fight to reduce the effects of climate change in the medium and long term is the adoption of effective policies for decarbonizing economies. This entails a huge change in energy consumption, from CO₂-emitting energies to non-polluting renewable energies, also known as clean energies (hydraulic, biomass, solar, wind, geothermal and tidal). Renewable energy sources offer a diversity and abundance that distinguishes them from fossil fuels and nuclear power. It is believed that the sun will supply these energy sources, via solar radiation, wind, rain, etc., for another four thousand million years. The primary advantage of having access to a range of renewable energy sources is that they do not produce GHG or any other emissions, in contrast to fossil and renewable fuels. A number of renewable sources do not produce any extra carbon dioxide, except that necessary for their construction and operation, and pose no further risk, such as the nuclear risk.

Biodiversity Management

The 20th century witnessed increasingly fast biodiversity destruction. Estimates vary about the extent of extinction: between a few and 200 species disappear every day. However, the scientific community agrees that the proportion of species losses is higher than ever before in the history of humanity. In the plant world, it is estimated that around 12.5% of known species are endangered, including the direct destruction of plants and their habitat. There is also growing concern about the introduction by humans of exotic species into specific habitats, which modifies the trophic chain.

The Convention on Biological Diversity (CBD) was signed in Rio in 1992 to tackle the loss of biodiversity caused by human activities. The CBD's objectives are: "to conserve biological diversity, to use biological diversity in a sustainable fashion, to share the benefits of biological diversity fairly and equitably." The Convention is the first equitable global agreement that addresses all aspects of biological diversity: genetic resources, species and ecosystems. It recognizes, for the first time, that the conservation of biological diversity is "a common concern for all humanity" and an integral part of the development process. To achieve its objectives, the Convention follows in the footsteps of the Rio Declaration on the Environment and Development and constantly encourages association between countries. Such association is based on measures for scientific and technological cooperation, access to genetic resources and the transfer of clean environmental technologies.

Water Management

UNESCO's 2003 World Water Development Report indicates that the amount of water available over the next twenty years will drop by 30%. As things stand, 40% of the planet's inhabitants do not have access to the minimum necessary for basic hygiene. Over 2.2 million people died in 2000 from diseases linked to consumption of contaminated water, or from drowning. In 2004, the UK's WaterAid charity reported that a child died every 15 seconds from easily-avoided water-linked diseases.

According to Alliance 21's 2001 [Proposals Related to the Water Issue](#), "Water is an unalienable right for every human being. All levels of water supply management are necessary and independent. The integrated approach to the catchment areas must take into account the needs of irrigation and those of towns, jointly and not separately as is often seen to be the case. Equipment must be sought to bring about water saving and to increase its efficiency in irrigation systems and industrial processes. Financial responsibility for water must be assumed by the individual and by the community according to the principles of responsibility and use while respecting ethics and democracy. The governance of a water supply must be guided by the principles of sustainable development. Science and technology must be used to meet the requirements of the communities both in the fields of drinking water supplies and sanitation facilities. All governance of a water supply must promote education in connection with water, and make the general public more widely aware of water saving and resource conservation."

Ozone Layer

Monitoring of the ozone layer over recent years has reached the conclusion that it must be considered seriously endangered. This is the main reason why the United Nations General Assembly met on 16 September 1987 and signed the [Montreal Protocol](#).

The disappearance of the ozone layer will result in increased cases of skin cancer, ocular cataracts and damaged immune systems in humans and other species. It will also affect crops sensitive to ultra-violet radiation. If the ozone layer is to be protected, we need to eliminate the use of chemical constituents like chlorofluorocarbons (industrial refrigerants and aerosols) and farming fungicides like methyl bromide that destroys the ozone layer 50 times faster than CFCs.

Nuclear Risk

The nuclear risk began with the rapid development of nuclear reactors used to generate electricity. Another nuclear-related problem is the possibility of environmental pollution by humans using atomic bombs (which work like a nuclear power station reactor, although they create a chain reaction which cannot be controlled or halted). Regardless of the type of environmental contamination, nuclear pollution causes further damage to human society and the environment, which is rendered unfit for an indeterminate period due to the malformations and congenital diseases that contamination produces in people, animals, plants, water, the land, and so on. The release of radiation caused by a nuclear accident contains major acute and chronic risks for the immediate environment and chronic risks for a broader geographical area. Radioactive contamination, which is usually airborne, is long lasting: contamination is sure to last several hundred years on average.

The most obvious solution for reducing the nuclear risk is to replace the use of nuclear energy with non-polluting [renewable energies](#) (solar, wind, hydraulic, tidal, etc.).

Precautionary Principle and Transgenic Organisms

The [precautionary principle](#) is a concept based on the adoption of protective measures in the absence of scientific consensus about a given action's environmental consequences. It needs to be taken as a general principle in the adoption of environmental measures, particularly large-scale measures, and when tackling the issue of [Genetically Modified Organisms](#), especially their use in food.

The known negative effects of GMOs are physical and social:

- resistance to antibiotics;
- higher level of toxic residues in food;
- possible development of new allergies;
- dependence on the technique used;
- contamination of traditional varieties;
- insect deaths (a by-product of modification);
- ecological impact of crops;
- obligatory nature of consumption (lack of pre-consumption information on the unknown negative effects that place GMOs in the realm of [post-normal science](#). The precautionary principle as applied to GMOs in this context establishes that “there must be an ‘extended peer community’ consisting of all those affected by an issue who are prepared to enter into dialogue on it. They bring their ‘extended facts’, that will include local knowledge and materials not originally intended for publication such as leaked official information.” ^[24]

Regulations

Conventions

The main conventions, also known as Rio Conventions, are as follows:

[Convention on Biological Diversity \(CBD\)](#) (1992-1993): aims to conserve biodiversity, in other words, to protect genetic resources, ecosystems and species, to use biological diversity in a sustainable fashion, to share the benefits of biological diversity fairly and equitably, especially through proper access to genetic resources and the transfer of appropriate technology and funding. The agreements linked to the convention include the [Cartagena Protocol](#) on biosafety.

[United Nations Framework Convention on Climate Change \(UNFCCC\)](#) (1992-1994): aims to stabilize concentrations of GHG in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system, and reach this level within a time scale that allows ecosystems to adapt naturally to climate changes without threatening food production, and enabling the pursuit of sustainable economic development; it incorporates the [Kyoto Protocol](#).

[United Nations Convention to Combat Desertification \(UNCCD\)](#) (1994-1996): aims to combat desertification and mitigate the effects of drought and desertification in countries seriously affected by these problems, particularly in Africa, thanks to effective measures at every level.

Further conventions:

- [Ramsar Convention on Wetlands of International Importance](#) (1971-1975)
- [UNESCO World Heritage Convention](#) (1972-1975)
- [Convention on International Trade in Endangered Species of Wild Flora and Fauna \(CITES\)](#) (1973-1975)
- [Bonn Convention on the Conservation of Migratory Species](#) (1979-1983)
- [Convention on the Protection and Use of Transboundary Watercourses and International Lakes \(Water Convention\)](#) (1992-1996)
- [Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal](#) (1989-1992)
- [Rotterdam Convention on the Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade](#)
- [Stockholm Convention on Persistent Organic Pollutants \(COP\)](#) (2001-2004)

The Rio Conventions are characterized by the following fundamentals aspects:

- obligatory execution by signatory states;
- involvement in a determined sector of global environmental governance (biodiversity, climate, desertification, etc.);
- focus on the fight against poverty and for the development of sustainable living conditions;
- funding from the Global Environment Facility (GEF) to stimulate the application of conventions in countries with few financial resources;
- inclusion of a [programme for assessing ecosystem status](#).

Environmental conventions are regularly criticized for their:

- rigidity and verticality: they are too descriptive, homogenous and structured from the top down, reflecting the diversity and complexity of environmental issues. Signatory countries have great difficulty translating the objectives into concrete form and incorporating them consistently into all sectors and levels;
- parallel structures and aid: the sector-specific format of the conventions has given rise to parallel structures and procedures between countries, and between development organizations competing for funds and influence. Cooperation between government ministries, necessary and urgent, remains at a standstill;
- contradictions and incompatibility: “precisely because the conventions are so closely linked to the issues they deal with, they can also be detrimental to each other. For example, if reforestation projects to reduce CO₂ give preference to monocultures of exotic species, this can have a negative impact on biodiversity (whereas natural regeneration can strengthen both biodiversity and the conditions needed for life). Therefore the objectives of the different conventions must always be kept in mind and weighed against each other. This is a difficult task, especially in poor countries, where tensions between the need for rapid

economic improvements and that for long-term environmental conservation are particularly high.” ^[25]

“In many cases, existing international environmental legislation does not lead to the establishment of collective solutions to environmental problems or for sustainable development, whether coordinated or synergetic. Concrete international agreements are often negotiated on the basis of specific regulations produced in relative isolation. Each agreement tends to be based on an artificial breakdown of the causal difficulties in quest of a practical means of management. The agreements are managed by specialist ministries or functional organizations within forums created by international agreement negotiations.

The process for drawing up treaties is excessively long. It took a decade to move from the programme elaboration phase, using a framework agreement, to negotiation of the first operational protocol for collective action. Even after the protocol agreement, its ratification depends on governments’ degree of capacity to create a consensus at the state level, or whether they backtrack and allow the question of scientific uncertainty to re-emerge for political reasons, thus delaying and prolonging the process.

Until now, the formulation of environmental policies at the international level has been divided by theme, sector or territory, resulting in the negotiation of treaties that overlap or clash. This generates needless complications at the state level, since the signatories try to respect their obligations under multiple agreements. Internationally, there are attempts to coordinate environment institutions, such as the Inter-Agency Coordination Committee and the Commission for Sustainable Development, but these institutions are not powerful enough to effectively incorporate the three aspects of sustainable development.” ^[26]

Multilateral Environmental Agreements (MEAs)

These are agreements between several countries apply internationally or regionally, and concern a variety of environmental questions including the atmosphere, living matter, marine life, desertification, ecosystem protection, refusal of dangerous substances and marine contamination. There are currently over 500 Multilateral Environmental Agreements (MEAs), including 45 of global geographical scope with at least 72 signatory countries. ^[27] Several further agreements cover regional environmental problems, such as deforestation in Borneo or pollution in the Mediterranean. Each agreement has a specific mission and objectives ratified by a variable number of states. The MEAs represent international environmental law.

“The environmental governance structure defined by the Rio and Johannesburg Summits is sustained by [UNEP](#), MEAs and developmental organizations and consists of assessment and policy development, as well as project implementation at the country level.

The governance structure consists of a chain of phases:

- a) assessment of environment status;
- b) international policy development;

- c) formulation of MEAs;
- d) policy implementation;
- e) policy assessment;
- f) enforcement;
- g) sustainable development.

Traditionally, UNEP has focused on the normative role of engagement in the first three phases. Phases (d) to (f) are covered by MEAs and the sustainable development phase involves developmental organizations such as UNDP and the World Bank.” ^[28]

However, the lack of coordination between the different types of actors, each with their own interests, affects the development of coherent governance. The report shows that donor states support development organizations, according to the various individual interests, in creating and, especially, implementing standards. They do not, however, follow a joint plan, resulting in numerous overlaps and duplication of work. On the one hand, the MEAs tend not to be taken into account as a joint frame of reference and therefore receive little financial support. On the other hand, states and organizations prefer to finance the implementation of existing regulations rather than improving and adapting them to meet variable environmental threats. Furthermore, there is a lack of adequate linkage between normative and operational activities in the field. ^[29]

Background

Although not the root cause of ecological concerns, the traumatic experience of the threat posed by nuclear technology and its capacity for destruction produced a global awareness from the time when this type of energy came into use. Radioactive clouds, like oil slicks, do not respect territorial borders. The 1963 treaty prohibiting atmospheric nuclear testing is thought of as the beginning of the globalization of environmental issues, even though environmental law only began to be modernized and coordinated with the [Stockholm Conference](#) (1972), backed up in 1980 by the Vienna Convention on the Law of Treaties. ^[30] A new initiative on environmental laws emerged in the 1970s and 80s with the discovery of a hole in the ozone layer caused by atmospheric pollution from chlorofluorocarbons (CFCs) and methyl bromide disinfectant use in plant nurseries. The Vienna Convention for the Protection of the Ozone Layer was signed and ratified in 1985. In 1987, 24 countries signed the [Montreal Protocol](#) which imposed the gradual withdrawal of CFCs.

The [Brundtland Report](#), published in 1987 by the UN Commission on Environment and Development, stipulated the need for economic development that “meets the needs of the present without compromising the capacity of future generations to meet their needs.” Two new concepts were thus introduced: the needs (particularly those of the most disadvantaged) that have to be prioritized, and the technical limits appropriate to the development of future generations. However, beyond the declarations, the development model proposed was profoundly contradictory, consisting of introducing more technology to solve the problems caused by an excess of technology. If development is funded by debt and foreign investors who threaten to relocate, how can

it be sustainable? The question that arises is, can the creation of global funds like the Global Environment Facility (GEF) only support sustainable development because it implies a transfer of wealth from North to South?

Rio Conference (1992) and reactions

The United Nations Conference on Environment and Development (UNCED), better known as the 1992 [Earth Summit](#), was the first major international meeting since the end of the Cold War and was attended by delegations from 175 countries. Since then the biggest international conferences that take place every 10 years have been guiding the global governance process and, with a series of MEAs, laying down the foundations of international environmental regulation. Environmental treaties are applied with the help of a handful of small organizations called [secretariats](#).

Over and above the action taken by international institutions, a number of governments proceeded to strengthen a range of international treaties in the 1990s in order to check certain global threats to the environment. These treaties are far more restrictive than cooperation activities and set out to change non-sustainable production and consumption models. ^[31]

Agenda 21

[Agenda 21](#) is a detailed plan of actions to be implemented at the global, national and local levels by UN organizations, member states and key individual groups in all regions where human activities have an impact on the environment. Agenda 21 is a declaration that structures the application of the Rio Conventions within the context of [sustainable development](#). It introduces sustainable development as a legal principle within the architecture of international environmental law in order so that it can be incorporated into the structure of international trade and the development-based economy. The aim is to structure international cooperation using the inclusion of environmental costs in development projects along with conservation projects' management mechanisms and funding.

The Agenda has been accused of recycling neoliberal principles in order to appropriate civil society's standpoint. For example, chapter two, entitled "International Cooperation to Accelerate Sustainable Development in Developing Countries and Related Domestic Policies" proposes liberalism as the solution to the environmental crisis, as exemplified in one highly revealing paragraph: "The international economy should provide a supportive international climate for achieving environment and development goals by: promoting sustainable development through trade liberalization." At the local level, local Agenda 21 initiatives establish a territorial strategic plan based on inclusion, incorporating the criteria of sustainable environmental and social policies in the territory concerned, fruit of participation and consensual decision-making by political, technical and citizen representatives.

Actors

International Institutions

United Nations Environmental Program

The [UNEP](#) is clearly the benchmark institution for global environmental management, but it has only had a partial success. It has been effective in two key areas: as a monitoring and advisory body, and in developing environmental agreements. It has also contributed to strengthening the institutional capacity of environment ministries the world over.

Taking sustainable consumption as one example, in 2002 UNEP launched the lifecycle initiative that brought together industry leaders, academics and political leaders to encourage the application and disclosure of tools for assessing products' environmental impact throughout their productive life. The programme attempts to ensure that all these institutions collaborate so that environmental issues are incorporated in the supply and offer of goods and services. UNEP cooperates, in particular, with the fashion, advertising, financial and retail industries, key agents in promoting sustainable consumption. ^[32]

Nonetheless, UNEP has not succeeded in developing coherent and coordinated political management processes. Neither has it managed to identify and promote best practices, and has failed to become the institutional benchmark for a great many international environment conventions. This lack of robustness has helped to perpetuate an international environmental governance that is increasingly complex and fragmented.

According to Maria H. Ivanova, although on the one hand UNEP offers comparative advantages in the areas of environmental monitoring, scientific assessment and information sharing, whose potential should be maximized, on the other hand it cannot aspire to lead all environmental management processes due to the proliferation of international institutions and environmental NGOs which operate in an increasingly complex and extended framework. It should instead be capable of acting as a forum for sharing ideas and information and for political debate, where different agencies and networks could negotiate and pool their experiences and thus facilitate the adoption of agreements.

Other actors indicate other problems, such as the organization's vast internal fragmentation and its low and unstable budget, dependent on donations. These factors, combined with its location in a southern country, mean that UNEP has become an institution with little credibility and little political clout compared to other organizations with more extensive resources. Furthermore, these organizations refuse to let the UNEP act as their coordinator, despite the need for a coordinating agent for global environmental governance and all the work the institution has carried out promoting the development of environmental protection, particularly in developing countries.

Ivanova proposes the following tasks for reforming UNEP:

- initiate a strategic independent overhaul of its mission;
- consolidate the financial information and transparency process;

- restructure organizing governance by creating an operative executive council that balances the omnipresence of the overly imposing and fairly ineffectual Governing Council/Global Ministerial Environment Forum (GMEF).

Other proposals point to a new mandate for UNEP. The mandate “should produce greater unity amongst social and environmental agencies, so that the concept of ‘environment for development’ becomes a reality. It needs to act as a platform for establishing standards and for other types of interaction with national and international organizations and the United Nations. The principles of cooperation and [common but differentiated responsibilities](#) should be reflected in the application of this revised mandate.” ^[33]

A number of principles need to be adopted to strengthen UNEP:

- obtain a social consensus on a long-term vision for UNEP;
- analyze the current situation and future scenarios for UNEP;
- produce a comprehensive plan covering all aspects of sustainable development;
- build on existing strategies and processes;
- multiply links between national and local strategies;
- include all these points in the financial and budget plan;
- adopt fast controls to improve process piloting and identification of progress made;
- implement effective participation mechanisms. ^[34]

“Strengthening of UNEP: Consider the specific needs of developing countries and respect of the fundamental principle of “common but differentiated responsibilities”. Developed countries should promote technology transfer, new and additional financial resources, and capacity building for meaningful participation of developing countries in international environmental governance. Strengthening of international environmental governance should occur in the context of sustainable development and should involve civil society as an important stakeholder and agent of transformation.” ^[35]

Global Environment Facility (GEF)

Created in 1991, the [Global Environment Facility](#) is an independent financial organization initiated by donor governments including Germany and France. It was the first financial organization entirely dedicated to the environment at the global level. It has 179 members. Donations are used for projects covering biodiversity, climate change, international waters, destruction of the ozone layer, soil degradation and persistent organic pollutants.

The GEF has an institutional structure that includes the United Nations Environment Programme (UNEP), United Nations Environment Programme (UNEP) and the World Bank. The GEF currently acts as the funding mechanism for the four environmental conventions: the United Nations Framework Convention on Climate Change, the Convention on Biological Diversity, the Convention on Persistent Organic Pollutants and the United Nations Convention to Combat Desertification. The GEF is financed by countries that are committed to helping less developed countries within the framework of these conventions. It channels the funds to a selection of projects set up and run by UNDP, UNEP and the World Bank. However, although UNEP and UNDP are

responsible for coordinating and managing the projects, the World Bank plays the primary role in managing funds. ^[36]

The annual budget of US\$561.10 million, although far bigger than the UNEP budget of US\$85 million, does not meet all the demands for environmental management in developing countries.

The GEF has been criticized for its historic links with the World Bank, at least during its first phase during the 1990s, ^[37] and for having favoured certain multilateral agreements relating to certain regions to the detriment of others. ^[38] Another view sees it as a masterpiece of modern-day capitalism, on a level with the Structural Adjustment Policies of the 1980s and 1990s, contributing to the emergence of a green 'market' on the global level. It represents "an adaptation (of the World Bank) to this emerging world order, as a response to the emergence of environmental movements that are becoming a geopolitical force."^[39] According to Zoë, European and North American governments wanted to put a face on the international development aid system. Discussions on the conservation of the environment were marked by demands from developing countries for financial transfers which would help them protect their environment. There was a need to create an organization that could respond to these demands, so that southern countries would sign up to the three major Rio summit conventions. Most of them accepted the creation of the GEF on the condition that it was independent from the World Bank and prioritized sustainable development.

Despite the profusion and political complexity of debate within the Facility, its administration is subject to economic profitability criteria measured in outgoings and income, as is the case for all the [conventions](#). It has received more funds over the course of the first three years of its existence than the UNEP has since its creation in 1972. The funding granted to the GEF does not represent more than 1% of development aid between 1992 and 2002 and the annual cost that it represents is comparable to American daily military expenditure. ^[40]

United Nations Commission on Sustainable Development (CSD)

This intergovernmental institution meets twice a year to assess follow-up on Rio Summit goals. The CSD is made up of 53 member states elected every three years, and was reformed in 2004 to help improve implementation of Agenda 21. It now meets twice a year, focusing on a specific theme during each two-year period: 2004-2005 was dedicated to water and 2006-2007 to climate change. The CSD has been criticized for its low impact on state environmental policies, lack of presence generally, and the absence of Agenda 21 at the state level specifically, according to a report by the World Resources Institute. ^[41] Furthermore, the fact that its mission centres on sequencing actions and establishing agreements means that it is obliged to take part in negotiating and planning the agreements, which frequently puts it into conflict with other institutions such as UNEP and OECD. ^[42]

Secretariats

According to Bauer, Busch and Siebenhüner, ^[43] the underlying character of the different conventions and multilateral agreements as pillars of emerging global environmental regulation is turning their various secretariats into actors with greater

influence than they usually enjoy, influence that reaches further than specialized research. The degree of influence varies according to the secretariat in question, the extent of its bureaucratic and leadership efficiency, and its position, which may be more technocratic or faithful to the strict execution of all countries' demands, or more engaged, via an advocacy approach, in the interests of certain impacted countries, even if this may involve offending other more powerful developed countries. This applies to the Secretariat of the Convention to Combat Desertification (UNCCD).

One of the most generally criticized organizational aspects, particularly within the United Nations system itself, is the multiplication of secretariats, due to the lack of coordination and the chaos it produces: one per MAE, representing a significant number given the growing proliferation of agreements (45 international-scale agreements and over 500 overall).

World Environment Organization (WEO)

The increasingly globalized nature of environmental dangers has led many actors, including a number of states, to advocate the creation of a World Environment Organization within the framework of the United Nations. The organization would be capable of adapting treaties and enforcing application of international standards. UNEP has at times been considered as the embryo of this future organization. Further information is provided in the paragraph on [proposals](#).

World Bank

The [World Bank](#) influences environmental governance through other actors, particularly the GEF. The World Bank's mandate is not sufficiently defined in terms of environmental governance despite the fact that it is included in its mission. However, it allocates 5 to 10% of its annual funds to environmental projects. The institution's capitalist vocation means that its investment is concentrated solely in areas which are profitable in terms of cost benefits, such as climate change action and ozone layer protection, whilst neglecting other such as adapting to climate change and desertification. Its financial autonomy means that it can make its influence felt indirectly on the creation of standards, and on international and regional negotiations. ^[44]

Following intense criticism in the 1980s for its support for destructive projects which, amongst other consequences, caused deforestation of tropical forests, the World Bank drew up its own environment-related standards in the 1990s so it could correct its actions. These standards differ from UNEP's standards, meant to be the benchmark, thus discrediting the institution and sowing disorder and conflict in the world of environmental governance. Other financial institutions, regional development banks and the private sector also drew up their own standards. Criticism is not directed at the World Bank's standards in themselves, which Najam considered as "robust" ^[45], but at their legitimacy and efficacy.

World Trade Organization (WTO)

The [WTO](#)'s mandate does not include a specific principle on the environment. All the problems linked to the environment are treated in such a way as to give priority to trade

requirements and the principles of the WTO's own trade system. This produces conflictual situations. Even if the WTO recognizes the existence of MEAs, it denounces the fact that around 20 MEAs are in conflict with the WTO's trade regulations. Furthermore, certain MEAs can allow a country to ban or limit trade in certain products if they do not satisfy established environmental protection requirements. In these circumstances, if one country's ban relating to another country concerns two signatories of the same MEA, the principles of the treaty can be used to resolve the disagreement, whereas if the country affected by the trade ban with another country has not signed the agreement, the WTO demands that the dispute be resolved using the WTO's trade principles, in other words, without taking into account the environmental consequences.

International Monetary Fund (IMF)

The [IMF](#)'s mission is to provide aid to states in order to encourage their growth and development. The IMF exerts pressure on states via various objectives to ensure this growth: reduced public expenditure, increased exports and foreign investment. However, each of these objectives has negative effects on the environment of the country concerned. In addition, the reduction of public expenditure implies the reduction of expenditure linked to states' environmental policies for funding protected areas, combating corruption, developing good governance and creating environmental projects. ^[46] The environment is thus not a priority for the IMF, but given the institution's huge financial clout, the often negative effects of its actions on environmental governance are not insignificant. Worse, its philosophy for stimulating growth encourages the dominant neoliberal model of unsustainable growth which is responsible for the environmental crisis and is being increasingly called into question.

Other international institutions incorporate environmental governance in their action plans, including:

- [United Nations Development Programme](#) (UNDP), promoting development;
- [World Meteorological Organization](#) (WMO) which works on the climate and atmosphere;
- [Food and Agriculture Organisation](#) (FAO) working on the protection of agriculture, forests and fishing;
- [International Atomic Energy Agency](#) (IAEA) which focuses on nuclear security.

Over 30 UN agencies and programmes now have a stake in environmental management, according to Najam. ^[47] This fragmentation produces a lack of coordination, insufficient exchange of information and dispersion of responsibilities. It also results in a proliferation of initiatives and rivalry between them. ^[48]

States

Environmental governance at the state level

Alongside the respect for environmental programmes that the various states of the world have begun to develop over recent years can also be seen timid exercises in mutual and collective monitoring between neighbouring states. In other words, environmental governance is emerging as an ideal platform for action in terms of cooperation mechanisms developed between the two levels — state and international region —

although the task is only just beginning. These mechanisms are often developed by regional mechanisms; the European Union provides an example of the advanced institutionalization of joint environmental governance in cooperation with the state level, based on various institutions and organizations dedicated to the environment. It is worth noting the different key areas: information observation and production, led by the [European Environment Agency](#) (EEA), and the production of norms and monitoring of their implementation by states or local institutions.

State participation in global environmental governance

States' differing and often opposing visions are a source of concern, since it is states, specifically the northern states, that pull the strings of international funding institutions and can thus slow, or accelerate, the various processes. A significant example is the USA's refusal to ratify the major environment agreements during recent administrations (Clinton and George W. Bush), resulting in tensions with Europe and Japan which put pressure on the USA to ratify. These tensions are at the root of the problem of global environmental governance, since these countries are the main donors to international institutions and dictate their policies. The American refusal thus produced disastrous consequences for the credibility and application of these policies. The governance system devised by northern countries loses legitimacy amongst southern countries which are asked to assume their responsibilities in the face of an absence of cooperation and coordination between donor countries. The persistence of tensions increases the risk of a reduction in cooperation between institutions and the suspension of their funding.

This applies to the Convention for Biological Diversity and the Kyoto Protocol amongst others, as well as to UNDP. However, the Obama administration claims to be giving a new direction to US environmental policy, and although it has not promised to sign the protocol, it is hoped that a positive sign will be given during the next UN conference taking place in Copenhagen, Denmark, in December 2009, enabling the USA to get onboard and take part in defining the post-Kyoto agreement that will be negotiated at the conference.

Corporations

Environmental governance of corporations serves to assess how companies manage their impacts, risks, acts and possibilities in the environmental sphere. Environmental governance implies inclusion of the following key business development considerations:

- environmental values (vision, mission, principles);
- environmental policy (strategy, objectives, targets);
- environmental oversight (responsibility, direction, training, communication);
- environmental process (management systems, initiatives, internal control, monitoring and review, stakeholder dialogue, transparency, environmental accounting, reporting and verification);
- environmental performance (use of Key Performance Indicators, benchmarking, eco-efficiency, reputation, compliance, liabilities, business development). ^[49]

A number of studies, including that produced by White and Klernan, ^[50] prove the correlation between corporations' good environmental governance and their financial

performance. According to the authors, this correlation is higher in sectors where the environmental impact is stronger, probably due to a greater public awareness of the environmental policy of the corporation concerned. There is not yet a financially-based tool for assessing the importance of environmental governance within corporations as a positive driver for productivity improvements.

Environmental events detailed and tackled with the help of environmental governance, and with a direct link to productive and economic activities, are: toxic emissions, loss of biodiversity, spills and releases, hazardous waste, historical liabilities and climate change. ^[51]

Non-state actors

The question of different stakeholders taking part in environmental governance is directly linked to the democratization of such governance. According to Bäckstrand and Saward^[52], for example, there is a consensus on the fact that “broader participation by non-state actors in multilateral environmental decisions (in varied roles such as agenda setting, campaigning, lobbying, consultation, monitoring, and implementation) enhances the democratic legitimacy of environmental governance.”

Nevertheless, there are examples where only strong local activism is capable of gaining the support of the people and authorities to combat the might deployed by companies wanting to intervene in territorial development, such as mining companies. This is the case in Cotacachi, Ecuador, where a social movement used a combination of popular education in environmental governance, especially amongst women, direct action, the influence of local public authorities and denunciation of the mining company’s plans in its own country, Canada, and the support of international environmental groups. ^[53]

The importance of a multiplicity of strategies is also highlighted by Fisher^[54] when she talks about civil society actors who work both on exerting pressure within international institutions as national delegations for participant NGOs, and organizing external events for meeting the same international institutions. Social movements thus sometimes take on the role of guarantor of laws that the governments of their respective countries have not respected or wrongly interpreted. ^[55]

But over and above the unquestionably positive results of social movements’ actions on democratizing the societies they belong to, it is worth asking to what extent they can be the key agents of change in their territories, and how they have contributed to generating environmental governance at the territorial level (new institutions, standards systems, behaviours, organizational forms and management mechanisms). According to Bengoa, ^[56] “social movements have contributed decisively to the creation of an institutional platform wherein the fight against poverty and exclusion has become an inescapable benchmark.” But despite successes in this area, “these institutional changes have not produced the processes for transformation that could have made substantial changes to the opportunities available to rural inhabitants, particularly the poorest and those excluded from society.” The reasons given for this failing are as follows:

- polarity between the cohesive force of identity and the openness to differences which strengthens movements;

- capacity to boost trust between individuals to obtain cooperation from other people;
- contradiction between social participation and innovation: only in certain cases, over and above political will, does participation result in a successful transformation of the territorial economy;
- we often manage to produce goods and services, but we do not manage to avoid them being sold via existing conventional channels. In other words, ideological criticism of the ‘market’ is often incapable of creating a specific capacity to take action on or organize markets.

Another question, no less significant than the issue of social movements’ capacity for initiative, is their ability to link up locally within a governance framework that allows them to work with institutional actors. One example is an innovative initiative in Ecuador that involved the establishment of federations and management committees made up of different stakeholders (NGOs, communities, municipalities and the ministry) for the socially successful management of a protected forest. ^[57]

Proposals

The essential challenge for society as a whole is to find a way to develop effective, stable and legitimate governance systems at the local, national and international levels. These systems must guarantee the co-evolution of nature and human societies, with the overall goal of attaining an effective and comprehensive sustainable development model as an alternative to the current destructive model.

The International Institute for Sustainable Development proposes a “reform agenda” for global governance. The main argument is that there seems to be a tacit but powerful consensus on the objectives of environmental governance at the international level. These objectives are as follows:

- expert leadership;
- positioning science as the authoritative basis of sound environmental policy;
- coherence and reasonable coordination;
- the institutions that make up the environmental governance system should be well-managed;
- the environmental governance system should seek to incorporate environmental concerns and actions within other areas of international policy and action. ^[58]

Coherence and coordination between instruments and actors

The Inforesources Focus issue dedicated to [Global Conventions and Environmental Governance](#) identifies four major obstacles to global environmental governance, and describes a number of measures for dealing with the obstacles. The four obstacles are as follows:

- parallel structures and competition, without a coherent observation and implementation strategy that coordinates the various institutional actors;

- contradictions and incompatibilities, with examples of conventions that contradict each other and cause mutual damage because they are so closely linked with regard to the issues they deal with, and do not seek trade-off solutions when the problem arises;
- proliferation of competition between multiple agreements established by different organizations, with different objectives, regulations and processes, the WTO representing the most significant example. There is a lack of a coherent joint strategy between trade agreements, environmental conventions and programmes combating poverty;
- the missing link between the macro and micro scales: the need to invent flexible ways of combining the people's voice with global directives.

The measures are as follows:

- MDGs and conventions, with the shared goal of sustainable land management and reduction of poverty and equity and benefits as key elements;
- country-level approach linking global and local scales: there has been a recent resurgence in considering states as the key intermediate level, since they offer infrastructures and institutions, provide the main entry point for international cooperation, and are signatories to conventions;
- coordination and division of tasks: what is needed is a multilateral approach that best supports the work undertaken by countries with few financial and organizational resources and helps to improve coordination between donor countries and institutions;
- existing Poverty Reduction Strategy Papers (PRSPs) should serve as a key tool in development planning, but need to be improved by increasing coordination between sector policies, until now fragmented;
- transform conflicts springing from overlapping themes and competition between agreements, conventions and plans into tradeoffs, synergies and win-win options by identifying and balancing options for action between sector strategies and plans, taking into account short-term social needs and long-term environmental needs, and establishing open dialogue between government officials, the people directly concerned and experts.

Democratization of global environmental governance

Starting in 2002, a number of authors^[59] began to view the [Earth Summit](#) (Rio 1992, Johannesburg 2002) process as a democratic forum for innovation capable of radically changing the inter-state nature of the international order and opening up the possibility of stakeholder democracy for global environmental governance; the summits resulted in a process that was deliberative rather than simply participative, with key actors such as NGOs, women, indigenous peoples, businesses and traders taking part in the decision-making process alongside states and international organizations. Before, during and after each summit, forums, dialogues and partnership agreements took place, in parallel with the formal process of establishing relations between state and not-state actors. Multilateral negotiation has been the preferred mechanism for this form of governance, characterized by:

- the importance given to scientific and technical considerations during negotiations;

- the official and unofficial participation of many actors with heterogeneous, or even contradictory, scopes of activities;
- the growing uncertainty that characterizes some of the issues negotiated;
- a new interpretation of international law and social organization models based on new concepts and principles.^[60]

Nevertheless, as has already been pointed out, one of the underlying characteristics of this new model of democracy is the absence of joint rules relating to the nature of stakeholders and their representativity. This leads to the development of non-transparent relations which favour the more powerful stakeholders. A number of criticisms^[61] have been levelled at the environmental governance system, asserting that it acts more as a lobbying platform lacking in democratic regulations, wherein specific interest groups can influence the probability of power going to a government that will subsequently be likely to favour their interests internationally. An alternative to these badly organized and fairly ineffectual consultation processes would be the adoption of common standards, specific regulations, defined objectives, fields of action, rules of conduct and efficient organizational systems.

Institutional reform

The possibility of putting in place collective environmental action at the global level is open to debate. MEAs have been signed and ratified over the last 30 years, but applying them remains as difficult as ever. Conversely, today's complex, increasingly numerous and interlinked environmental problems urgently call for coordinated solutions, even in normative sectors other than the environment. Since the urgency and extent of the problems go beyond the capacity of existing institutions, the possibility arises of creating an international organization that centralizes these issues, a World Environment Organization (WEO). Another option would consist of reforming the [United Nations Environment Programme](#) (UNEP) so that it could take on this major political role, enlarging its functional structure and clarifying its operational mandate. However, the debate on the possible creation of a United Nations organization for the environment should not undermine the importance of the current need to strengthen UNEP. The tasks that need tackling need to be clearly defined before addressing the form that an institution of this type should adopt.

There are two opposing views of these issues: the European Union, particularly France and Germany, and a number of NGOs are in favour of creating a WEO. The United Kingdom, the USA and most developing countries prefer to focus on voluntary initiatives.^[62] WEO partisans maintain that an organization of this type could offer better political leadership, improved legitimacy and more efficient coordination. Its detractors argue that existing institutions and their missions already cover the needs of environmental governance; it is the lack of coherence and coordination between them as well as the absence of regulations and clear division of responsibilities that prevents them developing efficiently. We do not know whether the level of funding the new institution would receive would be higher than current UNEP funding, or if the new organization could guarantee efficiency.^{[63][64]}

In-depth discussions within the United Nations as well as various processes involving conversations, calls and declarations are addressing the need to advance towards a coherent global environmental governance system that provides a solution to current

problems of fragility, coordination and coherence. This process results from the need to develop the measures for [reforming the United Nations](#) approved in the final document of the [2005 World Summit](#).^[65] In the absence of consensus on the creation of the WEO, deliberation is focusing on the goal of making UNEP and environmental governance as a whole more efficient. The resolution recognizes “the need for more efficient environmental activities in the United Nations system, with enhanced coordination, improved policy advice and guidance, strengthened scientific knowledge, assessment and cooperation, better treaty compliance, while respecting the legal autonomy of the treaties, and better integration of environmental activities in the broader sustainable development framework.”

A [revised report](#) of this process highlights various elements, including the following proposals:

- greater and better coordination between agencies;
- strengthen and acknowledge UNEP’s scientific role;
- identify MEA areas to strengthen coordination, cooperation and team work between different agreements;
- increase regional presence;
- implement the [Bali Strategic Plan](#) on improving technology training and support for the application of environmental measures in poor countries;
- demand that UNEP and MEAs participate formally in all relevant WTO committees as observers.

Other points that UNEP should try to promote as part of the reform process are:

- strengthen its financial situation;
- improve secretariats’ efficiency and effectiveness.

In conclusion, one of the main reports addressing this issue ^[66] offers the following recommendations, which include initiatives that should be taken by the United Nations Secretariat or General Assembly:

- establish a clear definition of the division of tasks between development organizations, UNEP and the MEAs, indicating their respective spheres and type of activities in normative and operational capacity-building for protecting the environment and promoting sustainable development;
- endow the United Nations as a whole with a political direction in matters of environmental protection and sustainable development, within the UN strategic framework for the biennial programme plan;
- the General Assembly should take the decision to authorize the UNEP Governing Council/Global Ministerial Environment Forum to adopt the UNEP medium-term strategy as an instrument applicable to the entire system and an integral part of the UN strategic framework;
- propose mechanisms allowing Member States to formulate and administer MEAs in a more satisfactory manner, avoiding the creation of an independent secretariat for each convention;
- UNEP should receive the support it needs to set in motion its own process of periodically examining MEA reports in order to study and assess their application and ensure their coordination and coherence;

- the General Secretary should present the General Assembly with directives for setting up national and, where necessary, regional platforms based on environmental protection and sustainable development policies capable of incorporating the application of MEAs in the Common Country Assessment (CCA) process and United Nations Development Assistance Framework (UNDAF); ^[67]
- encourage organizations' executive powers and MEAs to elaborate a joint planning framework at the overall system level for managing and coordinating environmental activities;
- the General Secretary should collaborate with other organizations to launch a study of the aptitude and efficiency of environmental activities' funding, focusing on the concept of differential costs;
- the General Assembly should examine the study and redefine the concept of funding differential costs as applicable to existing financial mechanisms;
- encourage and reconsider remits, division of tasks and responsibilities between entities that provide administrative, financial and human resources management services to the multipartite conferences. Clearly define the level and type of services that the UN offices should provide to MEA secretariats;
- propose measures aiming to improve the situation in terms of personnel provision and the geographic distribution of personnel for MEA secretariats;
- improve transparency in the use of resources for covering the costs of supporting programmes based on real expenses, and in the provision of services to MEAs administered by the UN and UNEP. Draw up a joint budget for administrative support services supplied to MEAs.

Citizen action education

From an educational point of view, the objective reaches further than education alone, and concerns the development of different forms of citizen action. To this effect, a 2001 report proposes six fields of action for individuals and organizations, modelled on an alternative approach to governance from that adopted by institutions, corporations and other major stakeholders:

- strengthen citizens' sense of critical appraisal to ensure greater democratic control of political orientations;
- develop a global and critical approach in education as a whole;
- encourage development of special training for teachers centred on introducing civic education;
- training for certain socio-professional groups;
- devise environmental education for the entire population;
- assess the initial experiences of civil society. ^[68]

Local experiences and transformation of the development model

When it comes to altering development models, individual actions carried out by aware citizens can focus on modifying consumption, based on what is known as voluntary simplicity: changes in purchasing habits, simplified lifestyles (less work, less consumption, more socialization and constructive leisure time, less stress). But individual actions must not replace citizen vigilance and pressure on policies. ^[69]

Alternatives for responsible consumption and a frugal life have been developing over the last few decades, primarily concerning awareness of the political nature of individual acts, specifically purchases, according to the principle that ethical consumption should ensure that the entire population's basic needs are satisfied. These needs comprise the physical well being of individuals and society, encompassing a healthy diet, access to drinking water and mains drainage, education and healthcare and physical safety. ^[70] The general attitude centres on the need to reduce consumption and reuse and recycle materials. In the case of food consumption, the purchase from local stores of organic and fair trade products which avoid ill treatment of animals has become a major trend.

In terms of transport, a number of alternatives to private individual transport are worth noting, including public transport, car sharing and bicycles. In the energy sphere, we are seeing the use of alternative energies. For industrial waste, industrial ecological processes are being encouraged, using land where the waste from one industry is converted into raw materials for another type of industry. Further examples abound in other areas of daily life. At the government level, there are many measures to promote transition to a frugal economy, particularly in the domain of tax and subsidy policies, regulations on the use of chemical products and pollutants, definition of product standards and labelling, promotion of organic products and local trade within public establishments, etc. ^[71]

Policies and regulations

In addition to individual initiatives, it is vital to encourage policies that guarantee a society focused on well being rather than on development. Such a society would seek to guarantee the conditions that promote personal and social happiness rather than the increase and possession of material goods which, as many psychological studies show, do not, above a minimum threshold, solve social and emotional problems for people on a low income.

Definitions of this notion of well being vary, but tend to focus on the following elements:

- essential needs for survival: food, housing and guaranteed means of subsistence;
- individual and environmental good health;
- good social relations comprising social cohesion and a social network for support;
- security for people and their possessions;
- freedom, notably including the capacity for all individuals to exercise their potential for development.

This definition of well being is rooted in a decent quality of life, wherein activities are developed with deliberation and without stress. A society founded on this type of harmonious living encourages interaction with family, friends and neighbours, more direct experience of nature, greater focus on self-realization and creative expression, and less interest in accumulating possessions. This type of society places more value on life styles that avoid violating the existence of individuals, our fellow creatures, nature and the world that surrounds us. ^[73]

The policies and regulations that determine the available options, such as subsidies that modify prices in favour of alternative energies and town planning texts that encourage the use of recycled materials in construction, are examples of the need to promote “infrastructures for well being” whilst addressing the political, physical and cultural levels.

On another level, there is also a need to eliminate subsidies that have a negative environmental impact, by promoting non-sustainable development, and adopt taxes on pollution and measures promoting workers’ personal and family development during their free time. ^[74]

Strengthening relations between environmental governance spheres, with other world governance sectors and between territorial levels

A programme of national workshops on synergies between the three Rio Conventions was launched in late 2000, in close collaboration with the different secretariats concerned. The goal was to strengthen coordination at the local level:

- by sharing information;
- by promoting political dialogue with all donors in order to obtain financial support and implement programmes that incorporate the conventions’ objectives;
- by enabling the secretariats to update their joint work programmes. ^[75]

According to Campbell, ^[76] “In the context of globalization, the question of linking up environmental themes with other subjects, such as trade, investment and conflict resolution mechanisms, as well as the economic incentives to participate in and apply agreements would seem to provide an important lesson for the effective development of environmental governance structures.” Global environmental problems would thus maintain a close relationship with the global economic system and the various existing development models. “These problems also contain the seeds of a new generation of international conflicts that could affect both the stability of international relations and collective security. Which is why the concept of ‘collective security’ has arisen.”

As the ten years of [Agenda 21](#) experience and application have shown, the question of transferring decisions taken at the local level to the global level is as important as the way in which local initiatives and best practices, often fragmented, are adapted to the concept of a global system. Kanie^[77] points out that the emerging forces of environmental governance (NGOs, scientists, certain international institutions and partnerships between different stakeholders) can help to reduce the distance which separates the local and international levels. Nonetheless, the problem, both political and technical, of how to successfully link up the different levels remains unsolved. The issue’s political aspect springs from the difficulty of pulling together the necessary political will from the stakeholders concerned. Its technical aspect is a result of the continuing lack of a consultation process in the domain of environmental initiatives between the multiple actors that span the different territorial levels.

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