


# Integrity and Unity of the Earth System

A New Principle of International  
Environmental Law





# The Global Pact for the Environment in the context of the Anthropocene

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# 1 - Global Pact for the Environment in the context of the Anthropocene

It is commonly recognized that international law is not yet equipped to handle the ecological goods and services found simultaneously inside and outside of states, with global interconnections and interdependences. There exists a structural and theoretical flaw in the approach to the “global whole”, and this is the great challenge that a “Global Pact” for the Environment is presenting to us. Until now the starting point on how reality has been framed from a legal point of view, is the division of nature in silos, by dividing it in different elements (Biodiversity, climate, oceans, soils...) not recognizing that, by its nature and characteristics, it works in global systemic way and is truly common. The silo-based sectorial and territorial approach is what frames our current legal framework, in which the division between what is inside and outside the sovereignties is the only relevant factor. The global commons have always been (and continue to be) understood as geographical spaces that exist only outside the political borders of states. This flaw extends also to the trans-temporal generational dimension of humanity.

The global, diffuse and intangible character of a vital good, such as a stable climate, that exists both within and outside all states, with cumulative effects that last for centuries, served to transform this silo-based approach into an ecological nonsense.

The dysfunctionality of existing legal instruments has been detected since long but also been the object of several attempts to build concepts, which, however, have soon been found to be inoperative, with no legal consequences in terms of rights and duties.

The increasing understanding of the functioning of the Earth System, together with the possibility to measure its state through the planetary boundaries represent a giant leap towards the unravelling of the nebula composed of legally vague and undefined concepts disseminated in national and international legal texts. International Law expressions such as *the common concern of mankind*, *common interest*, *life-support system*, *intergenerational equity*, *ecological integrity and sustainable development* can now be sustained by a pattern of indicators that may be used to translate and delineate the lack of legal definitions, opening up new perspectives in the construction of solutions that will overcome the dysfunctionality between the ecological reality and the existing legal framework.

The new paradigm of the Earth System science, which calls for a comprehensive study of the co-evolution of the geosphere, biosphere and the techno-anthroposphere is linked to the concept of the Anthropocene. The Anthropocene represents the beginning of a very rapid human-driven trajectory of the Earth System away from the glacial–interglacial limit cycle toward new, hotter climatic conditions and a profoundly different biosphere. Earth system transformation describes the current situation in which almost all biogeochemical systems of the planet are influenced in one way or another by human activities. Many systems might undergo fundamental, and irreversible, change. The Anthropocene may force us to consider how humanity is changing the Earth System as a result of political choices made about a model of development sustained by law, and what kind of social changes the law should foster and stabilize in order to avoid the catastrophic outcomes of exceeding the planetary boundaries. Earth system governance requires as first and foremost, the governance of Earth System transformation.

Therefore, the Anthropocene also implies that legal systems must reflect a co-evolutionary transformation of law and politics that unfolds the evolution of the new Epoch. The Anthropocene is challenging our fundamental legal categories to the extent that they must reflect in a normative conception the global function of the Earth System.

## 2 - GPE - The gap between what is offered and what is needed

According to the Group of jurists that first proposed a Global Pact for the Environment, this initiative, which is embodied in a proposal for codification of 11 existing principles of international environmental law, would provide new guarantees and strengths before national courts to assert more than 500 international sectoral conventions that already exist in the environmental field. “For companies, the Pact would create a level-playing field and provide them with more predictability and legal security, which are crucial for economic actors to decide on long term investments. For governments and parliaments, the Pact could provide a basis to create new legislation. For judges, the Pact could be used as an inspiration for their decisions, or even – depending on national legal frameworks and interpretations – be directly applied with direct effect to their legal cases.”<sup>1</sup> On 10 May 2018, the UN General Assembly (the Assembly) adopted, [resolution 72/277](#) (report UNSG) entitled “Towards a Global Pact for the Environment”. According to the resolution’s text “despite all these instruments, environmental protection remains insufficient, due to the gaps and lack of coherence, monitoring and application of these texts”. To address these shortcomings, the report of the United Nations Secretary-General titled “Gaps in international environmental law and environment- related instruments: towards a global pact for the environment” (A/73/419), recommends, among others, harmonizing international environmental law with a treaty that would gather the fundamental principles in this field in order to clarify and reinforce them. However, this initial formulation raises the following a preliminary fundamental question:

- If the goal of a Global Pact devoted to the “global environment” is to address gaps, and providing coherence and effectiveness, how could this be achieved without a structurally coherent scientific theoretical framework behind?

This question must be answered first in order to avoid this Pact to be only a long tentative list to fill gaps.

As we have proposed in our previous submissions, the only way to have a consistent approach to a “global pact” is to use the best available scientific knowledge on the Earth System functioning – the Planetary Boundaries (PBs). These are the science-based limits of key processes that determine the Earth System (ES) functioning. If the PBs are transgressed, the risk that the Earth System is being driven out of the Holocene stability domain rapidly increases. It is important to highlight that the most

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<sup>1</sup> Y. Aguila and J. E. Viñuales (eds.), *A Global Pact for the Environment: Legal Foundations* (Cambridge: C-EENRG, 2019).



critical scientific principle that underpins the PBs framework is that the **ES functions as a single integrated system** at the planetary level. By addressing a single PB process in an isolated way (silos thinking), implies that we will continue ignoring all the other critical elements that interact with this one, as well all the feedbacks and domino effects that happen throughout all the system because of the interaction of PB processes. This means that, more than sectoral, geographic or implementation gaps, we have a structural and “systemic gap”, i.e., the absence of a global systemic approach, which is at the basis of a global legal gap.

Because the objects protected by all the current legal sectorial approaches are deeply interconnected across scales in the natural world, the goal of giving coherence and effectiveness to all of these Multilateral Environmental Agreements (MEAs) can only be achieved if they are harmonized in an integrated way. And this is only possible with a strong scientific foundation.

Approaching the Earth System in an integrated way will be the first step to move forward, since it represents a conceptual evolution that opens new possibilities for global cooperation and creates the basis for connecting already existing legal documents, as well as building new instruments.

### **3 - Could the Global Pact be the bridge between the consolidation of past and the openness to the future?**

The initiative to consolidate already existing environmental law principles, giving them a legally binding dimension, seems to us to be a very positive and necessary evolution. The central question is that this step will not be enough to achieve the paradigm shift that is necessary to meet the challenge of reversing the trajectory of destruction of the Earth System for tens to hundreds of thousands of years and potentially lead to conditions that resemble planetary states that were last seen several millions of years ago, conditions that would be inhospitable to current human societies and to many other contemporary species. Thus, we think that this Global pact could be a bridge between the consolidation of what we have already achieved in International Environmental Law, and the opening of doors for the pathway of Earth System stewardship guided by human-created feedbacks to a quasi-stable state of human-maintained favorable conditions.

With this in mind we propose the addition of a new principle to the eleven already proposed:

#### **New Article One Integrity and unity of the Earth System**

The parties recognize that the Earth System is a single and complex system that exists within the boundaries of well-defined parameters. It is now possible to understand the chemical, biological and physical processes of the Earth System that are conducive to maintaining a favorable state for humanity (i.e., the Holocene) and those that act to push the Earth System out of a stable, desirable state. Thus, the Earth System should be addressed as a single interconnected whole, and Humanity should develop deliberate and sustained action to become an integral, thus, humanity should develop and sustain action to adapt to Earth System dynamics..

