How to Defend the Planet in Law
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Translated from the French by Oliver Waine

In the face of a growing raft of evidence that increasingly points to an imminent global catastrophe—the very self-destruction of humanity, even—one means of taking concrete action, as opposed to fatalism and denial, is to promote new legal frameworks that can structure debate and action on this issue. Valérie Cabanes shows that defining the concept of ecocide is the first key step along this road.

The destruction of the Earth’s ecosystem by industrial technologies that show no respect for living things is tantamount to mortgaging the living conditions of current and future generations. It is vital that the people (and legal entities) that are actively responsible for this destruction should be prosecuted when their decisions affect the integrity of life, and therefore the safety of the planet. The crime they commit is that of ecocide—in a sense, the original crime; the crime that destroys the very conditions for habitability on Earth. For several decades now, a series of actors have been seeking to ensure that the intrinsic value of nature and the right of ecosystems to exist are recognized, by inventing the legal means to defend them in court.

The origins of ecocide: Vietnam and the “war against the unborn”

At a conference in 1970, biologist Arthur W. Galston, who had been involved in work on herbicides in 1942–1943 as part of his PhD research, was the first to use the term “ecocide” to denounce the environmental and human health risks associated with Operation Ranch Hand during the Vietnam War.

This operation sought to defoliate all the territories where the enemy could hide in the south of the country and on its borders with Laos and Cambodia. It aimed to unmask the Vietnamese fighters and destroy fields and rice paddies through the use of herbicides. Approximately 60% of the chemicals used were Agent Orange, an organochlorine biocide mixed with dioxin used by the US military as a defoliant in combination with another herbicide, 2,4-D. Some 3,181 villages were affected, amounting to 24% of South Vietnam. In total, between 2.1 million and 4.8 million Vietnamese were directly exposed to herbicides between 1961 and 1971. Agent Orange was much more deadly than expected, owing to its toxicity and its persistence in the environment. The dioxin of which it was composed was transmitted from mothers to their fetuses, causing high infant mortality and monstrous birth defects, condemning future generations.

In Vietnam, voices were raised as early as 1968 to describe the Vietnamese ecocide as a “war against the land and the unborn” (Zierler 2011, p. 15), in order to remind us that the acts of war committed by the Americans went beyond the definition of the crimes established at the Nuremberg trials. Its consequences affected not only civilians, but also future generations.

1 2,4-D: 2,4-Dichlorophenoxyacetic acid.
In 1999, Vietnam defined ecocide in Article 342 of its Criminal Code as follows: (a) “crimes against the human species,” indicating that any person, in time of war or peace, who is found guilty of massacring inhabitants of a region, destroying resources for existence and the cultural and spiritual life of a nation, disrupting the foundations of a society with a view to its destruction, or committing any other act of genocide or destruction of the lives of living beings or the natural environment shall be punished by 10 to 20 years’ imprisonment, life imprisonment, or the death penalty. Remarkably, the Russian Federation, in 1996, and eight other former Soviet countries also recognized acts that qualify as ecocide under domestic law. Russian criminal law therefore includes an article (no. 359) titled “Ecocide” within its chapter on crimes against peace and human security. In this context, negligence and complicity are considered the most serious crimes.

But let us return to the Vietnam War. At the opening of the 1972 United Nations Conference on the Environment in Stockholm, two years after Arthur W. Galston’s appeal, the Swedish prime minister Olof Palme spoke of the war as a “crime sometimes described as ecocide, which requires urgent international attention.” Richard Falk, professor of international law at Princeton, then considered how to incorporate ecocide into the international law of the day. He publicly compared “Agent Orange [to] an Auschwitz for environmental values” (Falk 1973, p. 7). In 1973, he proposed raising the crime of ecocide to the same level as that of genocide through the drafting of an international convention submitted to UN member states (Falk 1973). Then, in 1985, the Whitaker report, on the prevention and punishment of genocide, presented to the UN Sub-Commission on Prevention of Discrimination and Protection of Minorities, clearly recommended the inclusion of ecocide as an autonomous crime alongside genocide, together with ethnicocide and cultural genocide. It defines ecocide as: “adverse alterations, often irreparable, to the environment—for example, through nuclear explosions, chemical weapons, serious pollution and acid rain, or destruction of the rain forest—which threaten the existence of entire populations, whether deliberately or with criminal negligence.”

Recognition of ecocide by the International Criminal Court

In 1986, Doudou Thiam, the Special Rapporteur tasked by the International Law Commission with submitting a draft statute establishing the future International Criminal Court (ICC) to the United Nations General Assembly, suggested that the list of crimes against humanity should be supplemented by a provision making violations of the rules governing environmental protection punishable acts. The text he proposed in Article 12 (“Acts constituting crimes against humanity”) of his draft reads as follows:

The following constitute crimes against humanity: [...] Any serious breach of an international obligation of essential importance for the safeguarding and preservation of the human environment.

The Special Rapporteur added the following comment: “It is not necessary to emphasize the growing importance of environmental problems today. The need to protect the environment would justify the inclusion of a specific provision in the draft code.”

A working group led by Christian Tomuschat (a German lawyer and member of the International Law Commission) was then set up to develop a rule applicable to acts deemed to be harmful to the

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environment at all times. This group demonstrated that environmental destruction could fall within
the scope of the ICC’s statutes, as it fulfilled three essential conditions for the characterization of
crimes against peace: first, the gravity of the acts; second, the damage caused to humans, which
may be indirect (as damage to the environment can affect human health); and third, the moral
gravity of the acts. The Commission adopted the draft code on first reading in 1991. It included
Article 26 prepared by the Tomuschat team on acts that inflict grave damage on the environment. It
states that: “An individual who wilfully causes or orders the causing of widespread, long-term and
severe damage to the natural environment shall, on conviction thereof, be sentenced [...]”5

However, the Chairman of the Commission decided to refer only a watered-down version of the text
to the drafting committee, which ultimately retained as a war crime only deliberate and serious
damage to the environment (Article 8.2.b.iv) but made no mention of this in time of peace.

Toward true recognition of ecocide as a crime: the work of NGOs

Following this overly limited decision, various lawyers, including Christian Tomuschat and,
following in his footsteps, Lynn Berat (1993), Karen Hulme (2012), Polly Higgins (2010) and
Laurent Neyret,6 began to advocate for the recognition of ecocide in times of war and peace.

It is true that the situation is now critical. The degradation of living conditions on Earth and the
acceleration of the destruction of the planet’s ecosystems mean it is even more urgent to adopt
innovative and binding measures to control human activity, particularly industrial activity (Cabanes
2016). The current economic system, with its unsustainable patterns of consumption and
production, has continuously altered the dynamics and functioning of the entire Earth system to an
extent that is unprecedented in human history. According to the annual bulletin7 of the World
Meteorological Organization (WMO), published on October 30, 2017, the concentration in the
atmosphere of carbon dioxide (CO₂), the gas responsible for global warming, had never reached
such a high level by 2016. The last time the Earth had a comparable CO₂ level was 3–5 million
years ago: the temperature was 2–3°C (3.6–5.4°F) higher and sea levels were 10–20 meters (33–
67 feet) higher than today. As WMO secretary-general Petteri Taalas, of Finland, put it: “Future
generations will inherit a much more inhospitable planet.” A study8 published in August 2017 by a
team from Cornell University in the United States revealed that a fifth of the world’s population
will have been displaced by 2050 owing to the significant rise in water levels, and that two billion
people could become climate refugees by the end of the century if the climate does not stabilize. At
the same time, we are witnessing a sixth mass extinction of species. The WWF Living Planet Index9
reveals that global populations of fish, birds, mammals, amphibians and reptiles declined by 58%
between 1970 and 2012. Almost 80% of insect biomass has disappeared in less than 30 years in
Europe, according to a German study10 published in October 2017. And according to the World
Resources Institute,11 80% of the world’s original forest cover has been cut down or degraded—
again, essentially over the past 30 years. Finally, according to the Fourth Report of the
Intergovernmental Panel on Climate Change12 (IPCC), 30% of all animal and plant species would


10 Available online at the following URL: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809.


be threatened with extinction if the climate were to warm by 1.5–2.5°C (2.7–4.5°F) compared with 1850 temperatures.

Since the rise of multinationals in the 1970s, corporate law and global trade rules have increasingly tended to take precedence over human rights, and have no respect for ecosystems. It is now necessary not only to reaffirm the supremacy of human rights over commercial law, on the one hand, but also to recognize that our fundamental rights are conditional upon respect for higher standards defined by biological laws. If the conditions for life itself are threatened, how can we hope to guarantee humanity’s right to water, food, health, and even housing?

Protecting the planet to protect humanity

Inspired by the highly preventive objectives of Polly Higgins (2010, p. 159), by Laurent Neyret’s “global security” (2015, pp. 285–301), and by the gravity criteria used by Christian Tomuschat and Karen Hulme (2012) for the crime of ecocide, legal experts from the End Ecocide on Earth movement, such as Émilie Gaillard, Koffi Dogbevi, Adam Cherson and myself, worked between 2015 and 2016 on a final definition of the crime of ecocide in the form of amendments to the Rome Statute. These amendments, presented as a turnkey project, could be inserted directly into the text of the ICC statutes. Our proposal takes the form of 17 amendments or new articles that very precisely define what can constitute ecocide in scientific terms, as well as in legal terms, so that this crime can be judged effectively. This proposal takes into consideration the protection of nature, or more specifically the protection of life as we know it, using an ecosystemic approach. It provides legal protection for the large, vital ecosystems that are the global commons and the associated biogeochemical cycles that form the material and energy exchange systems on which all else rests, as well as their ecological subsystems, by giving them intrinsic rights. The aim of these rights is to enable ecosystems, through the legal personality granted to them, to defend their individual interests regarding their own existence and to regenerate themselves through the voice of human representatives.

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15 “Any part or system of the global commons’ means: (a) the oceans and seas that extend beyond national borders or are completely external to national borders, and the marine chemistry within these areas; (b) the atmosphere and atmospheric chemistry over non-territorial waters and land masses; (c) the seabeds beyond territorial waters; (d) the Arctic; (e) the Antarctic; (f) rivers that cross international borders; (g) migratory species that cross international borders or cross other geographical areas defined in paragraph (6) of this article as being part of the global commons; (h) space beyond the Earth’s atmosphere; (i) biogeochemical cycles that cross national borders, including but not limited to: i. the nitrogen cycle, ii. the carbon cycle, iii. the mercury cycle, iv. the sulfur cycle, v. the chlorine cycle, vi. the oxygen cycle, vii. the phosphorus cycle, viii. the potassium cycle, ix. the hydrogen cycle, x. the hydrologic cycle; (j) natural resource reserves that extend beyond national borders or are completely external to national borders; (k) gene pools of transnational animal and plant species; (l) biodiversity within any of the geographical areas defined in paragraph (6) of this article as being part of the global commons.” (Source: “Ecocide Amendments Proposal”, produced by End Ecocide on Earth for the attention of the International Criminal Court, Article 8 ter “Crime of ecocide”, para. 6, on p. 5; document available online at the following URL: https://cop21.endecocide.org/wp-content/uploads/2016/10/ICC-Amendments-Ecocide-ENG-Sept-2016.pdf.)

16 “[E]cological system’ includes but is not limited to: (a) supporting process such as nutrient and elemental recycling, primary production, clean air, clean water, and soil formation; (b) provisioning sources such as nutritious food, habitat, raw materials, biodiversity and genetic resources, minerals, water for irrigation, medicinal resources, and energy; (c) regulating processes such as waste decomposition, air and water purification, and pest and disease controls; (d) cultural functions of the Earth’s ecosystem such as spiritual enrichment, cognitive development and psychological repair, recreational experiences, scientific knowledge, and aesthetic pleasures.” (Source: ibid., Article 8 ter “Crime of ecocide”, para. 7, on pp. 5–6.)
The international crime of ecocide is thus characterized by: “severe damage to: (a) any part or system of the global commons, or (b) [any of the] Earth’s ecological system[s]”.\(^{18}\) It is also proposed that the safety of the planet be recognized as a new higher standard with a scope that extends beyond that of human security, as the former guarantees the latter. In order to assess the reality and gravity of alleged acts of ecocide, we propose that the Court make use of the concept of planetary boundaries defined by the Stockholm Resilience Centre\(^{19}\) and now recognized by the United Nations as a relevant framework for determining sustainable development objectives.\(^{20}\)

These boundaries can be used to scientifically determine the tolerable thresholds for changes affecting living organisms and, potentially, to control industrial activity. These limits must not be exceeded if humanity wishes to develop within a secure ecosystem—that is, one that avoids sudden and unpredictable changes in the global environment. To date, four of these thresholds have already been exceeded: climate, biosphere integrity, land-system change, and biogeochemical flows. These boundaries are inextricably linked to one another. Once certain thresholds are crossed, we run the risk of irreversible and abrupt environmental change, with catastrophic consequences for humanity. Climate change and biosphere integrity are what scientists at the Stockholm Resilience Centre call the “fundamental boundaries.” By transgressing them, we have entered into a new planetary state for which no one is prepared.

**Sanctions applicable for the crime of ecocide**

To ensure an effective prevention function, ecocide should be defined as a crime of strict liability according to an established knowledge of its likely consequences, as permitted by Article 30 of the Rome Statute of the ICC.\(^{21}\) And herein lie the criticisms today leveled at political, economic and financial leaders: they are aware of the reasons for, and consequences of, the current climatic and environmental crisis, and are not taking the action necessary to combat these challenges. For example, on the question of the climate, UN Environment reports\(^{22}\) that the commitments made in 2015 by the 195 countries that were party to the Paris Agreement—169 of which have so far ratified it—will only enable around a third of the necessary efforts to be made, as the Earth is now headed toward a rise in average temperature of 3–3.2°C (5.4–5.8°F) by the end of this century. With regard to companies, the *Carbon Majors Report 2017*,\(^{23}\) published on July 10, 2017, tells us that, since 1988, the year the IPCC was set up, companies that were supposedly aware of the environmental effects of their activities at that time have done nothing to halt the intensive development of activities responsible for high CO\(_2\) emissions, and have invested little in clean energy. On the contrary, they have begun to invest in unconventional energies, such as oil sands or shale oil, that have a high environmental impact. According to the report, if fossil-fuel extraction continues at the rate of the previous 28 years, temperatures could even rise by 4°C (7.2°F) by the end of the century, compared to the pre-industrial era. As for financial backers, they appear unlikely to stop subsidizing fossil fuels in the immediate future. In Europe, €112 billion ($126 billion) is spent annually on fossil energies, including €4 billion ($4.5 billion) of aid directly provided by the

\(^{18}\) Source: *ibid.*, Article 8 ter “Crime of ecocide”, para. 1, on p. 4.

\(^{19}\) See: [www.stockholmresilience.org/research/planetary-boundaries.html](http://www.stockholmresilience.org/research/planetary-boundaries.html).


\(^{21}\) Rome Statute of the International Criminal Court (17 July 1998), Article 30, para. 3: “For the purposes of this article, ‘knowledge’ means awareness that a circumstance exists or a consequence will occur in the ordinary course of events. ‘Know’ and ‘knowingly’ shall be construed accordingly.” However, in determining the applicable sentence, the judge may take into consideration the intention of the perpetrator of the act, as a mitigating factor or aggravating circumstance.


European Union for extraction, with many additional subsidies also allocated to these energies. According to the IMF, direct and indirect fossil-fuel subsidies worldwide amount to $5,340 billion per year.

In order to implement real environmental and health surveillance obligations, judges must be able to punish all types of legal entities, whether nation states or multinational companies—and, of course, their leaders—so as to avoid perpetuating certain situations of impunity. Accordingly, the proposed amendments call upon the International Criminal Court to adjudicate independently on such matters by firmly applying the principle of universal jurisdiction, on the basis of a higher common interest, above nation states, with jurisdiction possible over any national territory when ecosystems vital to humanity are threatened. Judges must be able to impose duties on current generations in order to preserve the environment for future generations. The idea would therefore be to take legal action in their name by recognizing transgenerational rights and duties for humanity, as proposed in the Draft Universal Declaration of Humankind Rights submitted to the United Nations by Corinne Lepage. In particular, this declaration proposes to establish rights and duties that are no longer individual but collective, to recognize the principle of interdependence between living species, and to ensure their right to exist and the right of humanity to live in a healthy and ecologically sustainable environment.

These provisions would pave the way for preventive justice—for the climate, the environment, and health—on a global scale. The precautionary principle, as laid down in Article 15 of the Rio Declaration following the 1992 Earth Summit, would then become an obligation and a valuable tool for international judges. It would make it possible to stop industrial activities responsible for ongoing ecocide or likely to cause ecocide through the use of precautionary measures.

In the event of a proven ecocide, victims could use the principles of restorative justice to force the perpetrators of the crime to pay moral, physical and/or economic compensation—in concrete terms, they would be obliged to restore the damaged natural environment on the grounds of its ecological value alone; it would also make it possible to redress injustices caused to populations or population subgroups, with particular attention to indigenous populations. When deemed necessary and appropriate, judges could use transitional justice measures to find a peaceful solution to the complaint by encouraging the perpetrators to tell the truth, acknowledge the victims, apologize, and make reparations for the damage caused through negotiations. Finally, prison sentences and the dissolving of companies could be imposed, depending on the gravity of the acts. These punitive legal actions are considered a last resort, but must constitute prerogatives granted to judges.

The proposed amendments drawn up by End Ecocide on Earth’s legal experts have, since 2015, been presented to various governments, first and foremost those of vulnerable states such as the island nations of Fiji and Vanuatu. They are also enjoying growing support among civil-society organizations around the world, who are calling on their governments to ask them to include the recognition of the crime of ecocide on the agenda of a future ICC Assembly of States Parties (as was the case, for example, in October 2017 in Burkina Faso, where citizens’ movements called upon the state to request that the Rome Statute be amended to recognize ecocide as a crime). Furthermore, the proposed amendments are supported in particular by the international judges who issued a legal opinion on Monsanto following a tribunal organized by civil society in October 2016 in The Hague. They considered, in light of the hearings, that international law “should now precisely and clearly assert the protection of the environment and the crime of ecocide.”

For these judges, “the time has come to propose the creation of a new legal concept: the crime of ecocide; and to incorporate it into a future amended version of the Rome Statute establishing the

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International Criminal Court.” The ICC’s next Assembly of States Parties, in December 2019, could perhaps be the scene of new discussions on ecocide initiated by Pacific island countries or African states—in other words, by those nations already suffering the consequences of the Anthropocene, the change in geological era caused by humanity.

**Bibliography**


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**To cite this article:**