

Accountability in the 21st Century: Ecocide and Genocide

ISA 2022 Nashville

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ABSTRACT

Criminal behavior is expanding to include interdisciplinary domains, and so must accountability for such crimes. We are witnessing activism to bring perpetrators of environmental crimes to justice all the way to the International Criminal Court (ICC). This activism has named the crime of environmental offenses. Similarly, a great deal of human rights activism has taken place to bring the perpetrators of genocide and mass atrocities to justice in the future. Forensic evidence has been meticulously documented in cases like Syria's Assad regime, the Saudi-sponsored brutal murder of Jamal Khashoggi, the immense war crimes against the people of Yemen, and the genocides against the Rohingyas in Myanmar and the Uighurs in China.

This paper analyzes these interdisciplinary areas of activism for accountability. The fight against climate change has faced major challenges since the empowerment of political leaders like Donald Trump and Jair Bolsonaro along with intense disinformation campaigns that dubious actors have launched globally. Ecocide is an existential battle for humanity, and accountability for the destruction of the environment has to be visible, swift, and impactful. The same is true of genocide and mass atrocity perpetrators. The "never again" mantra has not been realized in the 21st century. The president of Syria, Bashar al-Assad, has managed to manipulate the country's politics to get "re-elected." He has killed more than 500,000 fellow Syrians, tens of thousands of which have been children. He has also used banned chemical weapons against civilians. Accountability continues to be tested in the 21st century, but the activism for bringing environmental criminals and genocide perpetrators to justice is alive and relentless.

Accountability in the 21st Century: Ecocide and Genocide

"Let's take a moment and collectively apologize for the harm we have done to Mother Earth"

– Jane Goodall

Introduction

Above is a quote from primatologist and anthropologist Jane Goodall on the occasion of International Women's Day on March 8, 2022.¹ She is correct. Humans have not been kind to the earth, and climate change is not the only manifestation of the damage. Food and water insecurity, migration trends, territorial conflicts, species' extinction and endangerment, and competition for fishing rights and other food sources all pertain to human harm done to the environment, often in a vicious cycle. A critical point that the vast humanity is not appreciating is that ecocide will ultimately lead to genocide. These two concepts are intrinsically linked and not in ways favorable to humans. While humans erode environmental integrity, they are only endangering themselves. Activists for ecocide and genocide accountability need to capitalize on the empirical facts of the linkage. This paper

¹ Jane Goodall, "Dr. Jane Goodall's Message for International Women's Day 2022," March 8, 2022: <https://youtu.be/-zAH5ctYbVQ>.

analyzes the imperative of accountability of ecocide and genocides that are ongoing, as well as for future impacts. As many activists have pointed out, there is only one planet earth. There is no “planet B,” and what people are doing to the environment globally is nothing else but criminal.

Criminal behavior is expanding to include interdisciplinary domains, and so must accountability for such crimes. We are witnessing activism to bring perpetrators of environmental crimes to justice all the way to the International Criminal Court (ICC). This activism has named the crime of environmental offenses. Similarly, a great deal of human rights activism has taken place to bring the perpetrators of genocide and mass atrocities to justice in the future. Forensic evidence has been meticulously documented in cases like Syria’s Assad regime, the Saudi-sponsored brutal murder of Jamal Khashoggi, the immense war crimes against the people of Yemen, and the genocides against the Rohingyas in Myanmar and the Uighurs in China.

The fight against climate change has faced major challenges since the empowerment of political leaders like Donald Trump and Jair Bolsonaro along with intense disinformation campaigns that dubious actors have launched globally. Ecocide is an existential battle for humanity, and accountability for the destruction of the environment has to be visible, swift, and impactful. The same is true of genocide and mass atrocity perpetrators. The “never again” mantra has not been realized in the 21st century. The president of Syria, Bashar al-Assad, has managed to manipulate the country’s politics to get “re-elected.” He has killed more than 500,000 fellow Syrians, tens of thousands of which have been children. He has also used banned chemical weapons against civilians. Accountability continues to be tested

in the 21st century, but the activism for bringing environmental criminals and genocide perpetrators to justice is alive and relentless.

If human societies fail to maintain and protect the “Earth Systems” that are constantly threatened by climate change, “ecosystem degradation, and resource limitations” – mainly as a result of human societies’ own actions and behaviors – then, in a cyclical manner, humans are destroying themselves. If there is no viable Earth System, then the viability of human and all forms of organismic life is compromised. As this is being perpetrated by humans, inevitably the impacts will come back to negatively affect humans in the end. That end result may be an indirect means of genocide, or self-annihilation.

Humans have not only polluted the earth, but they have also littered space with space junk (see figure 1: Space Junk). No matter if humans succeed in colonizing other planets, ecocide on earth will result in genocide.



Fig. 1: Space Junk

From spent rockets to defunct satellites, the millions of pieces of orbital debris have reached a critical level. A computer-generated image released by the European Space Agency shows an approximation of 12,000 fragments in orbit around the Earth. Photograph: ESA/AFP/Getty Images (Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010 <https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>)

First, this study examines ecocide, the killing or destruction of the environment, and an analysis of ecocide accountability is presented. Second, the study focuses on genocide in the 21st century, and it addresses the progress in – or lack of –accountability for genocidal crimes. Ecocide and genocide are interconnected. If the environment is destroyed (ecocide), mainly due to human behavior and actions, then genocide will likely happen, as humans cannot survive without the preservation of the environment.

The Concept of Ecocide

The non-governmental organization that focuses on earth conservation and the fight against ecocide defines the latter as: “a word to describe what is happening to our planet; the mass damage and destruction of the natural living world. It literally means ‘killing one’s home’. And right now, in most of the world, no-one is held responsible.”² Specifically, the legal definition of ecocide is: “unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts - *Independent Expert Panel for the Legal Definition of Ecocide, June 2021.*”³

According to the American Bar Association,

Founded in 2017, the Stop Ecocide campaign is the first global campaign aiming to “support the establishment of ecocide as an international crime, in order to forbid and prevent further devastation to life on Earth.” To this end, the campaign launched an expert drafting panel on the legal definition of ecocide in late 2020. The panel is co-chaired by international lawyers Philippe Sands QC and Dior Fall Sow. The expert drafting panel is tasked with crafting a definition of ecocide as a potential international crime alongside the internationally recognized crimes of genocide, crimes against humanity, war crimes and the crime of aggression in the Rome Statute and as applied by the International Criminal Court.⁴

Quoting Professor Philippe Sands, who the American Bar Association interviews in a June 15, 2021 article, the concept of ecocide was “first evoked by Swedish Prime Minister Olof Palme in 1972 at the Stockholm Conference, and then by a British lawyer, Ben Whitaker, in the mid-1980s. But it was really picked up more recently by another British

² Stop Ecocide International: <https://www.stopecocide.earth/>.

³ Ibid.

⁴ Lea Main-Klingst, “An International Definition for the Crime of Ecocide? Interview with Philippe Sands,” American Bar Association, June 15, 2021: https://www.americanbar.org/groups/environment_energy_resources/publications/ierl/20210615-an-international-definition-for-the-crime-of-ecocide/.

lawyer, Polly Higgins.”⁵ Stop Ecocide International has since taken the torch of environmental activism and has called for refining the “definition of ecocide in a way that could allow it to be considered for inclusion in the Statute of the International Criminal Court.”⁶ Philippe Sands refers to ecocide as “the fifth crime,” following the first four listed as existing international crimes⁷ – genocide, war crimes, crimes against humanity, crimes of aggression.

In fact, the actual word “ecocide” is based on the word “genocide,” and Professor Sands emphasizes that “the crime of ecocide must not be anthropocentric,” that is, it “must not be only about protecting the human.”⁸ Ecocide, then, is presented as a “new crime,” embedded somewhere between genocide and crimes against humanity,⁹ as Professor Sands explains it in the article. He says, “I think what the inscription of the crime of ecocide into international law would do is signal that the international community values and recognizes the need to protect the environment as an end in itself.”¹⁰ This requires the “practice of changing human consciousness and behavior over the long term.”¹¹

In June 2021, a 12-person panel of lawyers drafted a legal definition of “ecocide” to create a new international criminal status of environmental destruction. According to an National Public Radio (NPR) article on the topic, the draft definition of ecocide states that it is defined as “unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

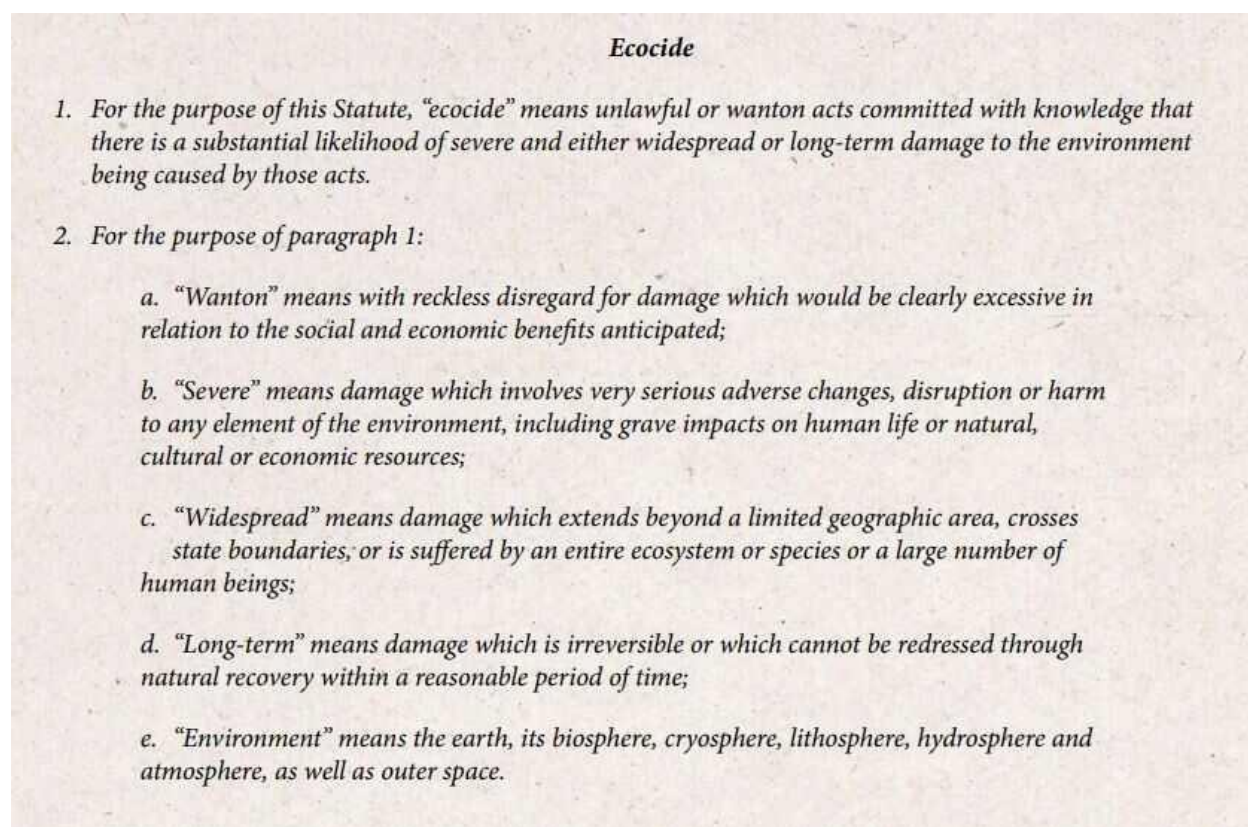
⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

caused by those acts.”¹² Moreover, ecocide “would be the only crime in which human harm is not a prerequisite for prosecution;” it is a “crime against nature, not just a crime against people.”¹³ Specifically, ecocide is defined in the wording of the lawyers as follows:



Source: Josie Fischels, “How 165 Words Could Make Mass Environmental Destruction an International Crime,” *NPR*, June 27, 2021: <https://www.npr.org/2021/06/27/1010402568/ecocide-environment-destruction-international-crime-criminal-court>.

¹² Josie Fischels, “How 165 Words Could Make Mass Environmental Destruction an International Crime,” *NPR*, June 27, 2021: <https://www.npr.org/2021/06/27/1010402568/ecocide-environment-destruction-international-crime-criminal-court>.

¹³ *Ibid.*

There are specific steps that the International Criminal Court (ICC) would need to take to codify ecocide as an international crime as embodied in the Rome Statute. These steps, which could take decades, include:

1. One of the International Criminal Court's 123-member countries (which do not include the U.S., China or India) would have to submit a definition to the United Nations secretary-general
2. The proposal must then be voted on by a majority of members of the ICC at the annual assembly in December in order to be considered.
3. Once the final text for an amendment is discussed and agreed upon, two-thirds of member countries must vote in favor.
4. The vote is ratified and must be enforced in countries a year later. While it will become a criminal offense in the countries where it is ratified, ratifying nations may arrest non-nationals on their own soil for ecocide crimes committed elsewhere. This means citizens of countries that are not members of the ICC could still be affected.¹⁴

Some governments and multinational corporations are reluctant to embrace the ecocide campaign that qualifies the act as an international crime. Also, non-signatories to the ICC – i.e., the Rome Statute – include the United States, China, India, Iraq, Libya, Yemen, Qatar, Russia, and Israel. Thus, the challenges to the ecocide campaign are formidable. The Stop Ecocide Foundation contends that, “not enough is being done to tackle the climate and ecological crisis.”¹⁵ Nonetheless, it is crucial to understand that ecocide and genocide are intrinsically linked.

¹⁴ Ibid.

¹⁵ Haroon Siddque, “Legal Experts Worldwide Draw Up ‘Historic’ Definition of Ecocide,” *The Guardian*, June 22, 2021: <https://www.theguardian.com/environment/2021/jun/22/legal-experts-worldwide-draw-up-historic-definition-of-ecocide#:~:text=The%20draft%20law%2C%20unveiled%20on.being%20caused%20by%20those%20acts%E2%80%9D>.

The Concept of Genocide

Historically, the concept of genocide has been difficult to define, but the UN Convention ultimately established a definition “enshrined in the [Rome] statute of the first permanent International Criminal Court, created in 2002 and ratified by 104 states as of 2007.”¹⁶ According to genocide scholar Ben Kiernan, “it took exactly 50 years, from 1948 to 1998, to register the first international judicial conviction for genocide, the finding of the International Criminal Tribunal for Rwanda (ICTR) that that country’s former prime minister, Jean Kambanda, was guilty of the crime.”¹⁷ Furthermore, the Genocide Convention’s Article 2 stipulates that there are three main components of the crime of genocide: victims, acts, and intent.¹⁸ Dr. Kiernan describes the details pertaining to Article 2, as follows:

Article 2 (sections a-e) places acts of genocide into five legal categories. These could form a moral hierarchy, but I will suggest a more conceptual classification. Sections a-e describe *physical* genocide, not just killing but also violence ‘causing serious bodily or mental harm to members of the group’, or the use of other force ‘deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part’. Courts have found that these acts could include ‘placing a group on a subsistence diet, reducing required medical services below a minimum, [and] withholding sufficient living accommodations. Sections d and e describe *biological* genocide, which need not involve physical destruction, but destruction by the employment or threat of force against a group to prevent it from reproducing: ‘imposing measures intended to prevent births within the group’ or ‘forcibly transferring children of the group to another group’. In addition to these five specified categories of acts, the international criminal law definition evolving from legal judgments based on the convention has incorporated a sixth, not explicitly listed in it: rape/death camps that target the women of a group. What is

¹⁶ Ben Kiernan, *Blood and Soil: A World History of Genocide and Extermination from Sparta to Darfur* (New Haven: Yale University Press, 2007), p. 11.

¹⁷ *Ibid.*, p. 12.

¹⁸ *Ibid.*

sometimes called *gendercide* therefore now legally constitutes an act of genocide.¹⁹

Based on these detailed stipulations pertaining to the legal definition of genocide, we can easily see the convergence between the concepts of ecocide and genocide.

Conclusion

Stop Ecocide International is taking on a monumental task – the effort to codify crimes against the environment. At the time that legal activists like Rafael Lemkin worked tirelessly to do the same with the concept of genocide, they too faced immense hurdles, but eventually they succeeded in getting the terminology and stipulations in the international law books. Now, ecocide must have the same outcome. The stakes are too high, and the circumstances to all of humanity and living creatures are grave. Simply, ecocide will lead to genocide of all species.

The June 2021 legal panel convened to address the issue of codifying ecocide as an international crime included a UN jurist from Senegal, Dior Fall Sow, who said, “The environment is threatened worldwide by the very serious and persistent damage caused to it, which endangers the lives of the people who live in it. This definition helps to emphasize that the security of our planet must be guaranteed on an international scale.”²⁰ Moreover, Stop Ecocide Foundation’s Jojo Mehta added that this was a “historic moment ... The resulting definition is well pitched between what needs to be done concretely to protect ecosystems and what will be acceptable to states. It’s concise, it’s based on strong legal precedents, and

¹⁹ Ibid., pp. 12-13.

²⁰ Siddque, “Legal Experts Worldwide Draw Up ‘Historic’ Definition of Ecocide,” *The Guardian*.

it will mesh well with existing laws. Governments will take it seriously, and it offers a workable legal tool corresponding to a real and pressing need in the world.”²¹ In sum, if Mother Earth dies, then all living beings inhabiting her will also perish. Hence, ecocide = genocide.

²¹ Ibid.

Appendix I: The Crime of Ecocide

UCLA Law

<https://law.ucla.edu/academics/centers/promise-institute-human-rights/ecocide#:~:text=have%20made%20history.-,The%20Crime%20of%20Ecocide,being%20caused%20by%20those%20acts>

The Promise Institute Played a Large Role

If you attended our 2020 Symposium on Human Rights and the Climate Crisis, you may recall the closing panel which explored how international criminal law could protect the environment. (If you missed it, you can watch the video [here](#).)

A little over one year and one pandemic later, a lot has happened. The symposium was followed by a [working group](#) at the Promise Institute, which then joined forces with an international expert panel to draft a new crime of ecocide. Executive Director Kate Mackintosh was deputy co-chair of that panel, which was steered by Philippe Sands QC and Dior Fall Sow and included nine other remarkable jurists from around the globe. After months of collaboration, they have made history.

The Crime of Ecocide

1. *For the purpose of this Statute, "ecocide" means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.*
2. *For the purpose of paragraph 1:*
 - a. *"Wanton" means with reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated;*
 - b. *"Severe" means damage which involves very serious adverse changes, disruption or harm to any element of the environment, including grave impacts on human life or natural, cultural or economic resources;*
 - c. *"Widespread" means damage which extends beyond a limited geographic area, crosses state boundaries, or is suffered by an entire ecosystem or species or a large number of human beings;*
 - d. *"Long-term" means damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time;*
 - e. *"Environment" means the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space.*

Many Promise Institute Hands Helped Shepherd Ecocide Into Being

In alphabetical order, we were assisted greatly by students Amanda Brown '20, Lydia Heye '22, Hannah Seulgee Jung '20, Prashant Khurana '20, and Ashley Sykora '21. Their work proved essential in so many aspects and we are proud to have offered hands-on work of this caliber as part of their legal education.

Meanwhile our faculty and visiting professors contributed, too! Professors Máximo Langer, Richard Steinberg and guest Richard Dicker gave invaluable input at the inception of the project. Our Assistant Director Jess Peake was a key member of the working group.

Ecocide Could Change the Course of Climate History

It is our hope that ecocide will become a watershed fifth international crime in the Rome Statute of the International Criminal Court, sitting alongside Genocide, War Crimes, Crimes Against Humanity and Aggression. Beyond that however, our broader goal is to see global shifts in attitudes to the environment. Because the law holds key decision-makers individually responsible, our hope is that it will alter the calculus of risk, asserting the value of our natural world. We all win when that happens.

Learn More About Ecocide

We have partnered with the Stop Ecocide Foundation to create the website EcocideLaw.com. It's both a legal and historical resource on ecocide, including past events and discussions, a timeline of the evolution of the idea of ecocide, scholarly articles and more. Please visit the site if you're so inclined, and be sure to tell other environmental allies about it.

You can also learn more from Executive Director Kate Mackintosh through this [UCLA News article](#).

Media Contact: Natalie Monsanto, monsanto@law.ucla.edu

Appendix II: Stop Ecocide International

<https://www.stopecocide.earth/>

“ECOCIDE”

is a word to describe what is happening to our planet; the mass damage and destruction of the natural living world. It literally means “killing one’s home”.

And right now, in most of the world, no-one is held responsible.

It’s time to change the rules. It’s time to protect our home.

We are working, together with a growing global network of lawyers, diplomats, and across all sectors of civil society, towards making **ecocide an international crime**.

“**Ecocide**” means unlawful or wanton acts committed with knowledge that there is a substantial likelihood of severe and either widespread or long-term damage to the environment being caused by those acts.

~ Independent Expert Panel for the Legal Definition of Ecocide, June 2021

WHO WE ARE

[Stop Ecocide International](#) (SEI) was co-founded in 2017 by pioneering barrister [Polly Higgins](#) (1968-2019) and current Executive Director [Jojo Mehta](#).

SEI is the driving force behind the [growing global movement](#) to make ecocide an international crime. Our [core work](#) is activating and developing global cross-sector support for this. We [collaborate](#) with diplomats, politicians, lawyers, corporate leaders, NGOs, indigenous and faith groups,

influencers, academic experts, grassroots campaigns and individuals to this end.

Positioned at the meeting point of legal developments, political traction and public narrative, we are uniquely placed to support and [amplify the global conversation](#).

Our core international team is located in many parts of the world and managed from the UK by [Stop Ecocide International Ltd.](#)



[Polly Higgins \(1968-2019\)](#)

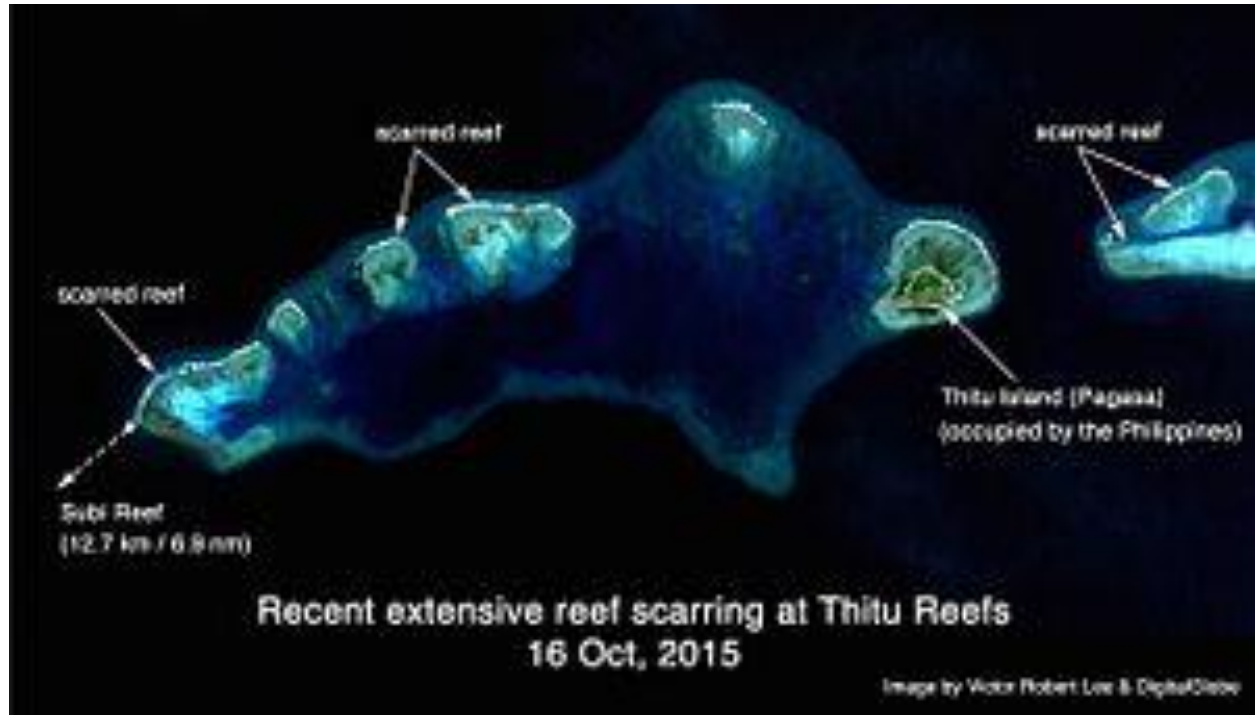


[Jojo Mehta](#)

Our charitable entity the [Stop Ecocide Foundation](#) was created in November 2019 in the Netherlands to support the growing movement and is the main fundraising and commissioning vehicle for our work. The Foundation was the commissioning body for the [Independent Expert Panel for the Legal Definition of Ecocide](#). It has ANBi status.

<https://www.stopecocide.earth/who-we-are->

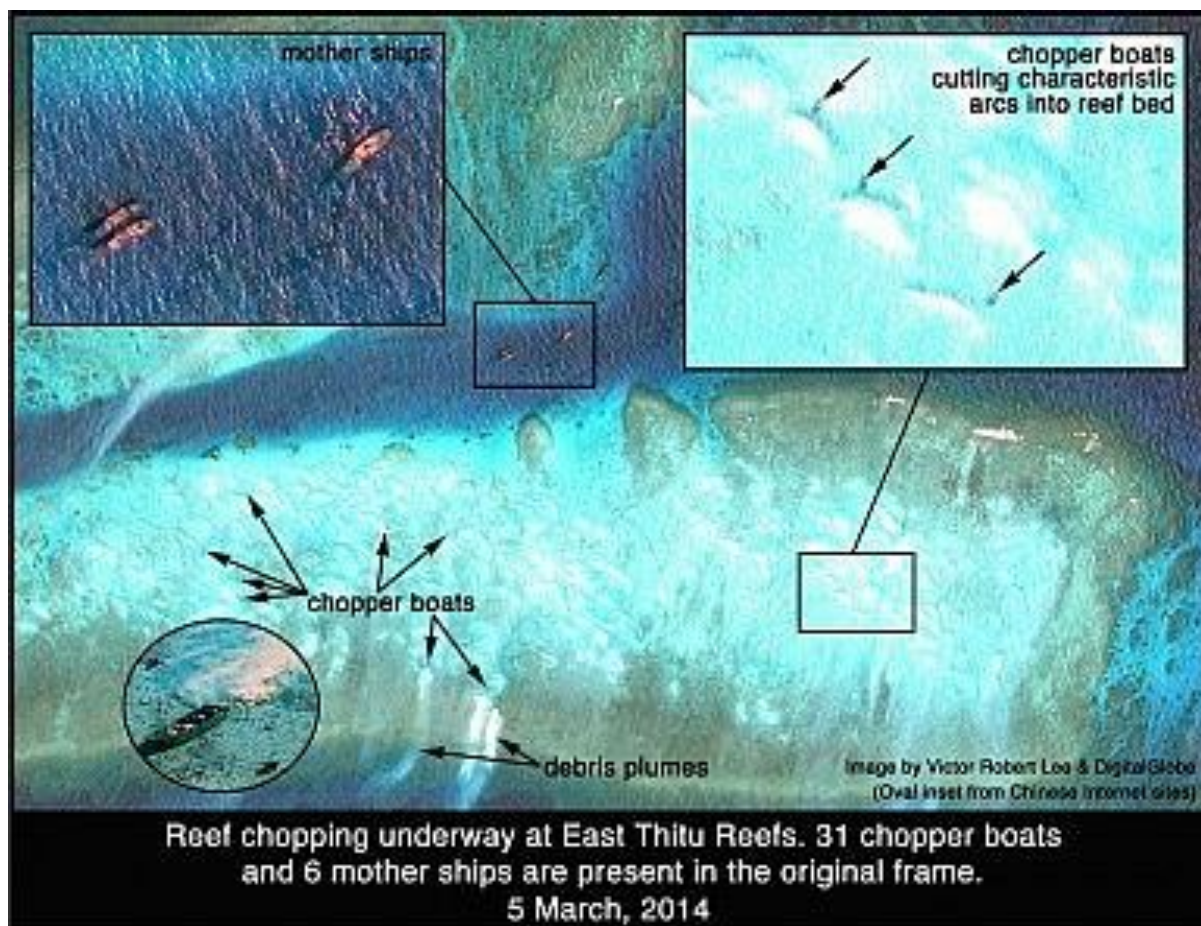
Ecocide in the 21st Century



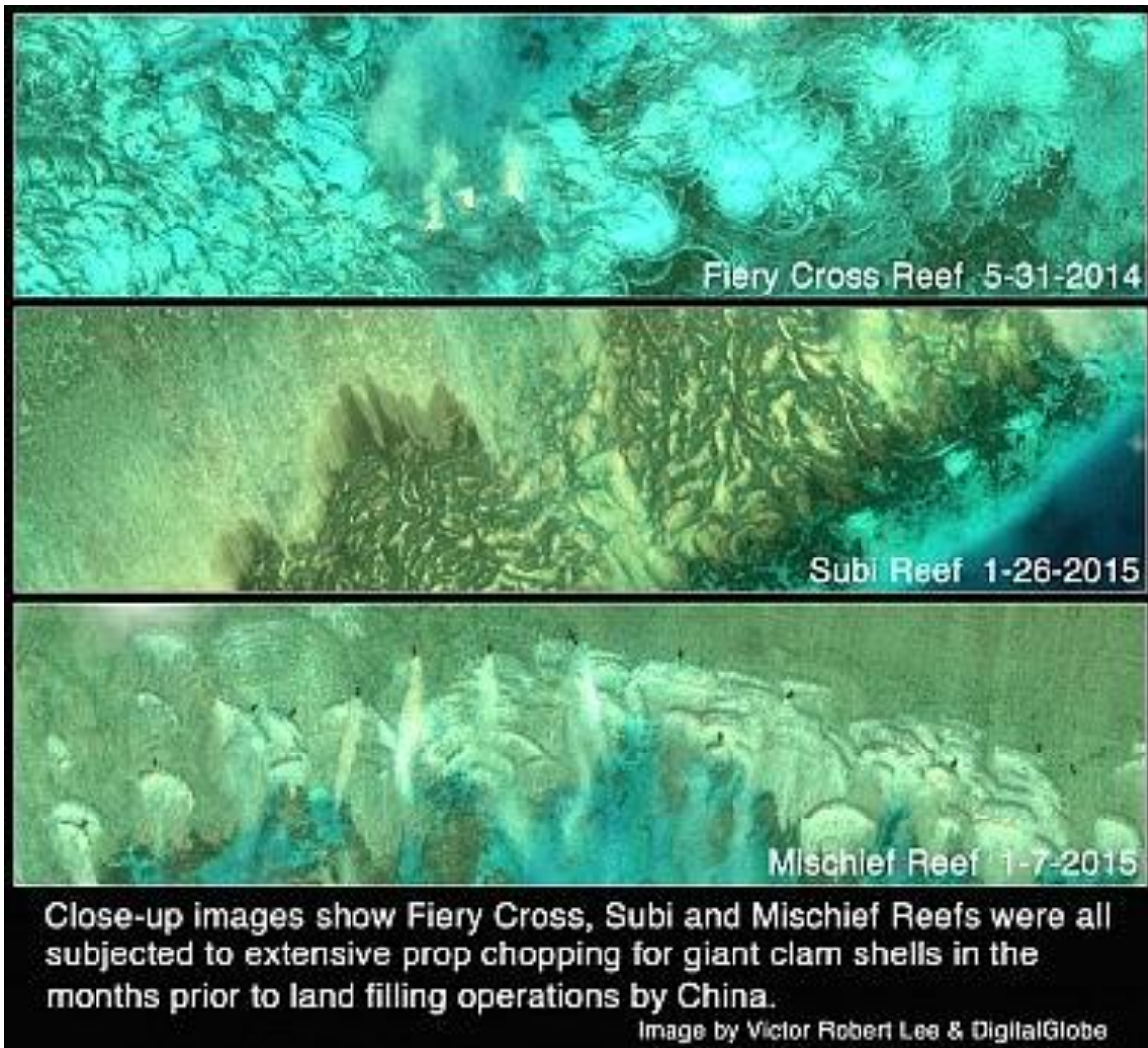
Source: Victor Robert Lee, "Satellite Imagery Shows Ecocide in the South China Sea," The Diplomat, January 16, 2016: <https://thediplomat.com/2016/01/satellite-images-show-ecocide-in-the-south-china-sea/>.



Source: Victor Robert Lee, "Satellite Imagery Shows Ecocide in the South China Sea," The Diplomat, January 16, 2016: <https://thediplomat.com/2016/01/satellite-images-show-ecocide-in-the-south-china-sea/>.



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**Alberta tar sands:**

"Referred to as the most damaging project on the planet. According to Greenpeace, emissions from tar sands extraction could grow to between 127 and 140m tonnes by 2020, exceeding the current emissions of Austria, Portugal, Ireland and Denmark. If proposed expansion proceeds, it will result in the loss of vast tracts of boreal forest and peat bogs of a territory the size of England Photograph: Orjan F. Ellingvag/Corbis."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>



The North Pacific gyre:

"A swirling island of 100m tonnes of plastic bits and bottle tops, spins clockwise from Hawaii to Japan. Also known as the Pacific trash vortex, it is estimated to be the size of Texas. This picture shows a Laysan albatross (*Diomedea immutabilis*) giving a bottle cap to its chick. Photograph: Frans Lanting/Corbis."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>

**The Niger delta:**

"Fifty years of oil extraction in the Niger delta has scarred the Niger delta. Oil companies operated here for decades with very little environmental supervision and the delta, notoriously beset by conflict and poverty, has been steadily pushed towards ecological disaster. Villagers struggle to live off land and water poisoned by years of oil spills, and crops fail under the acid rain caused by gas flaresPhotograph: Ed Kashi/Corbis."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>

**The Dongria Kondh:**

"Members of the Dongria Kondh tribe gather on top of the Niyamgiri mountain, which they worship as their living god, to protest against plans by Vedanta Resources to mine bauxite from that mountain. The mine will destroy the forests on which the Dongria Kondh depend and threaten the livelihoods of thousands of other Kondh tribal people living in the area. Vedanta denies allegations that the planned mine would violate the rights of thousands of people. Photograph: Reinhard Krause/Reuters."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>

**Mountaintop removal:**

"Aerial of mountaintop removal coal mining site in West Virginia. Mountaintop mining involves a highly destructive practice of blasting through hundreds of feet of mountaintop to get at thin but valuable seams of coal. Photograph: Melissa Farlow/NGC/Getty Images."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>

**Linfen, China:**

"The most polluted city on earth. Located at the heart of a 12-mile industrial belt of iron foundries, smelting plants and cement factories, fed by the 50m tonnes of coal mined every year, unregulated because of rapid development Photograph: Richard Jones/ Rex Features."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>



Toxic dumping by Chevron Texaco in Ecuador:

“Chevron, formerly Texaco, is alleged to have dumped billions of gallons of crude oil and toxic waste waters into the Amazonian jungle over two decades. This oily pond is at the oil production site of Guanta, near the city of Lago Agrio. Ecuador's recent bill of rights for nature has changed the legal status of nature from being simply property to being a right-bearing entity. Campaigners hope this will stop similar ecological disasters from happening again Photograph: Remi Benali/Corbis.”

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>



The Amazon:

"The razing of the Amazonian rainforest, a key stabiliser of the global climate system, by logging, mining, crop planting and beef production. Almost 60% of the region's forests could be wiped out or severely damaged by 2030 Photograph: Daniel Beltra/Greenpeace."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>

**Deep-sea mining:**

"The emerging underwater mineral extraction industry is sounding alarm bells among marine biologists, environmental scientists and campaigners such as Polly Higgins, who predict that mining for gold, silver and copper on the seabed will be the next great ecological disaster. The fragile marine ecosystem of the sea floor is a frontier that we know very little about. Photograph: M. Tivey /WHOI Deep Submergence Lab."

Source: Shiona Tregaskis, "Ten Worst Ecocides," *The Guardian*, May 4, 2010
<https://www.theguardian.com/environment/gallery/2010/may/04/top-10-ecocides>