

Abhandlungen

Ecocide: The ‘Forgotten’ Legacy of Nuremberg

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Abstract

The criminalisation of ecocide as an international crime has been a perennial issue, and some misgivings have been expressed over the idea. It has been contended that criminalising ecocide is antithetical to economic development and that the destruction of the ecosystem is not amenable to the scrutiny of the criminal justice system. In examining the viability of this argument, the article adopts a historical approach. It finds that ecocide is indeed one of the legacies of Nuremberg but was suppressed by powerful state interests. A lot of groundwork has already been laid which makes the criminalisation of

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ecocide feasible. The study argues that ecocide can be punished as genocide, war crime, crime against humanity, aggression, or a distinct crime.

Keywords

Ecocide – Genocide – International Crimes – War Crimes – Crime against Humanity – Aggression

I. Introduction

At present, there are four international crimes: war crimes, crimes against humanity, genocide, and aggression. It has been suggested, on one hand, that ecocide should become the fifth international crime. Ecocide is the massive destruction of the ecosystem with penal consequences. On the other hand, some misgivings have been expressed over making ecocide an international crime. It has been contended that criminalising ecocide is antithetical to economic development and that the destruction of the ecosystem is not amenable to the scrutiny of the criminal justice system. The viability of this argument will be examined in this article. In doing this, this article adopts a historical approach. My thesis is that ecocide can indeed be criminalised based on historical experience and that its criminalisation constitutes one of the ‘forgotten’ legacies of the Nuremberg due to powerful interests that suppressed its criminalisation. I discuss two prominent arguments against a criminalisation of ecocide: it would stifle economic development and the destruction of the environment would not be amenable to the scrutiny of the criminal justice process because environmental harms do not always materialise and when they do it may not be easy to link them with particular acts or omissions. Nevertheless, ecocide can be criminalised based on the groundwork already laid in history. Thus, ecocide can be prosecuted by the international community as genocide, crime against humanity, war crime, aggression, or as a distinct crime. The latter option is, to be sure, outside the boundaries of the law as it stands and would need to become a rule of international law, e.g. by forming part of a treaty. While prosecuting ecocide within the boundaries of the core crimes is not concerned with nature but with humans; prosecuting it as a distinct crime is concerned with nature while humans are made a component of it. Similarly, prosecuting ecocide as one of the core crimes would not stifle economic development. Also, the harm could still be linked with a specific act or omission. With respect to prosecuting

ecocide as a distinct crime, the principle of proportionality enshrined in the definition of this crime balances the protection of the environment with economic development. Moreover, the principle of endangerment equally enshrined in its definition does not necessarily require the harm to have materialised. It is enough that the act or omission has sufficiently endangered the environment.

This contribution is divided into six parts. The first part introduces the issue, discusses misgivings expressed over criminalising ecocide, and sets out the thesis. The second part traces the history of ecocide and discusses efforts geared towards criminalising it. The third part highlights some domestic jurisdictions where ecocide is penalised. The fourth part discusses recent developments with respect to ecocide. The fifth part discusses probable options derived from historical experience which are open to the international community in criminalising ecocide. The sixth part concludes.

II. Historical Evolution of Ecocide

1. In the Beginning

The term ecocide is a coinage of two words: one from the Greek 'oikos' which means house or home and the other from Latin 'caedere' which means to destroy or kill.¹ Ecocide is therefore the killing or destruction of the ecosystem, the home of humans. It refers to acts that destroy the ecosystem.² With reference to war, ecocide includes the use of weapons of mass destruction which may be nuclear, biological, or chemical.³ It can take the form of using defoliants for military objectives, or using explosives to impair soil quality, or enhance the prospects of diseases.⁴ It also includes attempts to set in motion natural disasters such as earthquakes, volcanoes, and floods; attempts to modify weather or climate or forcible or permanent removal of humans and animals from their habitats.⁵

The first possible example of ecocide occurred among the New Guinea Highland tribes. They would, after defeating their enemies, occupy their lands and cut down the entire fruits on them to reduce the chance of having

¹ Sailesh Mehta and Prisca Merz, 'Ecocide – A New Crime against Peace?', *Environmental Law Review* 17 (2015), 3-7 (4).

² Franz J. Broswimmer, *Ecocide – A Short History of the Mass Extinction of Species* (Pluto Press 2002), 75.

³ Broswimmer (n. 2), 75.

⁴ Broswimmer (n. 2), 75.

⁵ Broswimmer (n. 2), 75.

them reclaimed.⁶ They would kill every man, woman, and child who were unfortunate to be caught and laid waste their territory.⁷ This was to make it difficult for them to return to their territory rather than have the territory as a booty.⁸ Perhaps, a more documented example is the destruction of the North African city of Carthage by the Romans. After the Romans conquered the city, they covered its whole land with salt to destroy the means of livelihood of its inhabitants.⁹ Similarly, the Duke of Alva, governor of the Spanish Netherlands and the supreme commander of the royalist army, destroyed the totality of the countryside in Holland in 1573.¹⁰ He did this to force rebel towns that depended on food produced and stored in rural areas to abandon the rebel cause.¹¹ The 'harrying of the North' by William the Conqueror is another case in point. Between 1069 and 1070, he launched series of attacks in the northern part of England where villages were razed to the ground, crops and livestock destroyed, and thousands of men and women slaughtered.¹² Thousands also died of starvation after their food stores were laid to waste.¹³ Children, the young and the old were not spared.¹⁴ In modern history, the first example of ecocide is the Second Sino-Japanese War in 1938. In order to prevent the Japanese army from advancing into their territory, the Chinese dynamited the Huayuankou dike of the Huang He (Yellow) River. Several thousand Japanese soldiers were drowned while hundreds of thousands of civilians were killed. Eleven cities and 4,000 villages were flooded rendering millions homeless.¹⁵ Shortly afterwards, the Second World War left over 450,000 acres of Libyan farmland riddled with 5 million land mines.¹⁶ The Nazi troops flooded about 200,000 hectares (494,000 acres) of Dutch farmlands with sea water. These farmlands were 17 % of all the farmlands in the Netherlands.¹⁷ European bison were almost slaughtered to extinction as they were used to feed German and Soviet armies.¹⁸ The German civilian

⁶ Broswimmer (n. 2), 74.

⁷ Roy A. Rappaport, *Pigs for the Ancestors: Ritual in the Ecology of a New Guinea People* (Yale University Press), 143.

⁸ Rappaport (n. 7), 143.

⁹ Broswimmer (n. 2), 75.

¹⁰ Emmanuel Kreike, *Scorched Earth: Environmental Warfare as a Crime against Humanity and Nature* (Princeton University Press 2021), 30.

¹¹ Kreike (n. 10), 30.

¹² Tracy Borman, *Crown & Sceptre: A New History of the British Monarchy, from William the Conqueror to Elizabeth II* (Atlantic Monthly Press 2021), 15.

¹³ Borman (n. 12), 15.

¹⁴ David Bates, *William The Conqueror* (Yale University Press 2016), 314.

¹⁵ Broswimmer (n. 2), 75.

¹⁶ Broswimmer (n. 2), 75.

¹⁷ Broswimmer (n. 2), 75.

¹⁸ Broswimmer (n. 2), 75.

administrators depleted the resource of Poland by over-exploiting the Polish forests.¹⁹

The United States (US)-Vietnam War in early 1960 took a dramatic turn in the history of ecocide. The US sprayed the vegetation used by Vietnamese soldiers as cover with herbicides.²⁰ In the end, 18.8 million gallons of pesticides were sprayed covering 20 % of the total forests of South Vietnam.²¹ In a period of ten years, 990,000 acres of agricultural lands were poisoned. The herbicides used as defoliant were known as 'Agent Orange' which was capable of damaging the DNA. Thus, Vietnamese women started experiencing an increased rate of miscarriages and birth defects.²² The wars in former Yugoslavia and Rwanda also added their own share of the destruction of the ecosystem. Nearly all the national parks in Yugoslavia were destroyed including the Plitvic Lakes, Biokovo, Trsteno Arboretum, Krka River, Kopack Rit Bird Reserve, and the Osijek Zoo.²³ In the same vein, the Russian invasion of Ukraine on 24 February 2022 had a highly deleterious effect on the environment as there were several instances of air, water, land, and soil pollution.²⁴ It appeared to have reached its crescendo when Ukraine's largest dam, Kakhovka, was destroyed most probably by Russian forces on 6 June 2023. This led to a disastrous flooding in which thousands of hectares of land were submerged, dozens of human lives were lost and thousands were displaced.²⁵ In actual fact, about 12 thousand hectares of forest were flooded.²⁶ 33 persons died, 28 were injured while over 40 persons were missing.²⁷ In addition, the flood swept off many pets, farm animals, wildlife, and protected natural habitats. About 150 tonnes of toxic industrial lubricants were also released while contaminants from sewage pits, petrol stations, and agrochemical as well as pesticide stores, were dislodged.²⁸ The magnitude of the environmental disaster caused by the destruction of the dam might be

¹⁹ Broswimmer (n. 2), 75.

²⁰ David Zierler, *The Invention of Ecocide: Agent Orange, Vietnam, and the Scientists Who Changed the Way We Think about the Environment* (The University of Georgia Press 2011), 1-2.

²¹ Broswimmer (n. 2), 76.

²² Broswimmer (n. 2), 76.

²³ Broswimmer (n. 2), 77.

²⁴ Gabija Leclerc, 'Russia's War on Ukraine: High Environmental Toll', European Parliamentary Research Service, PE 751.427 – July 2023.

²⁵ Leclerc (n. 24).

²⁶ United Nations Environment Programme, *Rapid Environmental Assessment of Kakhovka Dam Breach, Ukraine* (United Nations Environment Programme 2023), xii.

²⁷ Independent International Commission of Inquiry on Ukraine, 'Report of the Independent International Commission of Inquiry on Ukraine: Advance Unedited Version', A/78/540, para. 47.

²⁸ Leclerc (n. 24).

difficult to ascertain with clear certainty for years or decades after the war.²⁹ While wars have brought cataclysmic destruction of the ecosystem, the industrial revolution has also contributed to the destruction of the ecosystem through the over-exploitation of natural resources.³⁰

2. Towards Defining and Criminalising Ecocide

Although ecocide in a factual sense is of ancient origin, the term only came to be used in the early 1970s.³¹ Professor Arthur W. Galson coined the term³² and its use was first recorded at the Conference on War and National Responsibility where he proposed 'a new international agreement to ban ecocide'.³³ It was however yet to assume a definite meaning although it was generally understood to prohibit damage to the environment to the detriment of human, animal, and plant life.³⁴ At this time, intent was not required.³⁵ In 1972, the Stockholm Conference on the Human Environment was held. Olof Palme, then Swedish Prime Minister, condemned the Vietnam War and regarded it as 'ecocide'.³⁶

A number of events ran parallel with the Stockholm Conference, all of them geared towards criminalising ecocide. The Folkets Forum established a working group on Genocide and Ecocide.³⁷ Dai Dong, a branch of the International Fellowship of Reconciliation, sponsored a Convention on Ecocidal War which was also held in Stockholm, Sweden.³⁸ The Convention wanted ecocide to be criminalised and brought a lot of experts together, including Professor Falk, an expert in war crimes, Dr Lifton, an expert in psychohistory, and Drs Westing and Pfeiffer, experts in biology.³⁹

²⁹ United Nations Environment Programme, *Rapid Environmental Assessment of Kakhovka Dam Breach, Ukraine* (n. 26), ix.

³⁰ Brosimmer (n. 2), 71-72.

³¹ Anja Gauger et al., 'The Ecocide Project: Ecocide is the Missing 5th Crime against Peace', Human Rights Consortium, School of Advanced Study, University of London, July 2012, 5.

³² Zierler (n. 20), 15 and 19.

³³ New York Times, 26 February 1970, cited in: Barry Weisberg, *Ecocide in Indochina* (Canfield Press 1970).

³⁴ John Fried, HE, 'War by Ecocide', 1972, cited in: Marek Thee (ed.), *Bulletin of Peace Proposals*, 1973, vol. 1, Universitetsforlaget, Oslo, Bergen, Tromsø.

³⁵ Arthur H. Westing, 'Proscription of Ecocide,' *Science and Public Affairs*, January 1974, 24-27.

³⁶ Tord Björk, 'The Emergence of Popular Participation in World Politics-United Nations Conference on Human Environment 1972', Department of Political Science, University of Stockholm <<http://www.folkrorelser.org/johannesburg/stockholm72.pdf>>, last access 28 February 2024.

³⁷ Björk (n. 36).

³⁸ Gauger et al. (n. 31), 5.

³⁹ Gauger et al. (n. 31), 5.

In the 1970s, there was an attempt to expand the 1948 Genocide Convention to make it more effective. Thus, Richard A. Falk prepared a draft International Convention on the Crime of Ecocide. He later published it in 1973.⁴⁰ Falk considered ecocide to be a crime during war and peace-time.⁴¹ The Sub-Commission on Prevention of Discrimination and Protection of Minorities (the Sub-Commission) prepared a study proposing that ecocide should be criminalised alongside cultural genocide. The draft prepared by Falk formed part of this study. The final draft of the proposal was later published in 1978.⁴² At this time several United Nations (UN) member States were in support of ecocide. However, for unknown reasons, the Convention on Ecocide was set aside.⁴³

In 1985, there was a report in support of criminalising ecocide which was a follow-up on the 1978 proposal.⁴⁴ A draft resolution prepared for the Commission on Human Rights followed this report. It was recommended that Mr Benjamin Whitaker, the Special Rapporteur for the Sub-Commission, conduct an extensive study on 'genocide', 'ethnocide', and 'ecocide'. But in the UN report that followed (38th session), there was no reference to the course the Sub-Commission finally took.⁴⁵

Between 1984 and 1996, the International Law Commission (ILC) had an extensive engagement with the idea of criminalising ecocide and included it in the list of Crimes against Peace.⁴⁶ It was Doudou Thiam, the Special Rapporteur at the time, who was behind this move. He relied on Article 19 Part 1 of the draft Articles on State Responsibility.⁴⁷ Meanwhile, Crimes against Peace formed part of the draft Code of Crimes against the Peace and Security of

⁴⁰ Richard A Falk, 'Environmental Warfare and Ecocide-Facts, Appraisal and Proposals', cited in: Marek Thee (ed.), *Bulletin of Peace Proposals*, 1973, vol. 1, Universitetsforlaget, Oslo, Bergen, Tromsø, 80-96.

⁴¹ Falk (n. 40), 93.

⁴² Sub-Commission on Prevention of Discrimination and Protection of Minorities, *Study of the Question of the Prevention and Punishment of the Crime of Genocide*, prepared by Mr Nicodème Ruhashyankiko, 4 July 1978, E/CN.4/Sub.2/416.

⁴³ Polly Higgins, Damien Short and Nigel South, 'Protecting the Planet: A Proposal for a Law of Ecocide', *Crime, Law and Social Change* 59 (2013), 251-266 (259).

⁴⁴ Sub-Commission on Prevention of Discrimination and Protection of Minorities (n. 42).

⁴⁵ Gauger et al. (n. 31), 8.

⁴⁶ Higgins, Short and South (n. 43), 259-260.

⁴⁷ His decision was predicated on the following treaties: Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof, 955 UNTS 115; Treaty Banning Nuclear Weapon Tests in the Atmosphere in Outer Space and Under Water, 43 UNTS 480; Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, 610 UNTS 205; and Convention on the Prohibition of Military or Any other Hostile Use of Environmental Modification Techniques, 1108 UNTS 151. See A/CN.4/377 and Corr 1, paras 44 and 51, 54-96.

Mankind. In Article 26 of the draft Code, Crimes against the Environment were recognised.

In the ILC's discussions, the argument resurfaced whether Crimes against Peace should only apply to 'acts causing serious damage to the environment'.⁴⁸ This argument dovetailed into whether Article 26 should be adapted or removed altogether. The question of adaptation implied treating crime against the environment as a crime of intent or not. By 1991, the argument on removal seemed to have been dead and Article 26 had been redrafted to cover only 'wilful and severe damage to the environment'.⁴⁹ This indicated that crimes against the environment became a crime of intent. This development elicited the reactions of the governments of Australia, Belgium, Uruguay,⁵⁰ and Austria⁵¹ who considered crimes against the environment in peace time as not to require intent. Australia considered the redrafted Article 26 as being too restrictive.⁵²

3. The Removal of Ecocide as a Distinct Crime within the UN Framework

As the question of removal had long died while the issue of intent was the one that remained controversial, it was most surprising that the ILC chose to drop Article 26 altogether. The reaction within the ILC and its Committee on the issue was however not fully recorded, but clearly this decision went contrary to the demands of most members of the UN at the time.⁵³ Subsequent developments among members of the Commission did not in any way advance the interests in criminalising ecocide.⁵⁴

In 1995, the Chairman convened twice an informal meeting 'to facilitate the consultations and ensure a truly frank exchange of views'.⁵⁵ Eventually, a Working Group was established to consider 'the issue of wilful damage to the environment'.⁵⁶ Members of the group included Mr Tomuschat, Mr Thiam, Mr Szekely, Mr Yamada, and Mr Kusuma-Atmadja.⁵⁷ In the beginning of the

⁴⁸ A/CN.4/377 and Corr 1, paras 79, 100.

⁴⁹ ILCYB (1995), vol. II, Pt. 2, 97.

⁵⁰ ILCYB (1993), vol. II, Pt. 1, 72, paras 26-27.

⁵¹ A/CN.4/448 and Add1, ILCYB (1993), vol. II, Pt. 1, 68, para. 30.

⁵² A/CN.4/448 and Add1, ILCYB (1993), vol. II, 66, para. 50.

⁵³ Higgins, Short and South (n. 43), 260.

⁵⁴ A/CN.4/448 and Add.1, ILCYB (1995), vol. I, 2386th meeting, 52 and 2387th meeting, 52-53.

⁵⁵ A/CN.4/448 and Add.1, ILCYB (1995) (n. 54).

⁵⁶ The Working Group was established at the 2404th meeting. See ILCYB (1995), vols I and II, Pt. 2.

⁵⁷ ILCYB (1996), vol. I, 2428th meeting, 5, para. 5.

ILC's 48th Session in 1996, the group deliberated upon the issue. Eventually, the Working Group came up with a report titled 'Document on Crimes against the Environment' where it was suggested that crimes against the environment should become a distinct crime or part of crimes against humanity or war crimes.⁵⁸ What was eventually put to voting was whether environmental damage should be part of crimes against humanity or war crimes.⁵⁹ However, in 1996, the members of the ILC had a meeting where Mr Ahmed Mahiou, then Chairman of the ILC, unilaterally removed ecocide as a distinct crime without putting it to voting.⁶⁰

4. The Complete Obliteration of Ecocide within the UN Framework

With Mahiou's decision, ecocide had been completely obliterated from all draft documents and what happened thereafter cannot be ascertained with clear precision as everything is shrouded in mystery.⁶¹ Mr Thiam of Senegal, the Special Rapporteur for the Draft Code of the Offence against the Peace and Security of Mankind, stated in his 13th Report that ecocide had to be removed due to the disapproval of certain few powerful governments who were largely opposed to the inclusion of Article 26 in any form.⁶² What finally emerged from the ILC drafting Committee on ecocide is a draft which refers to intentionally causing 'widespread, long-term and severe damage to the natural environment' with war as the context. Since the Draft Code of the Offence against the Peace and Security of Mankind is the precursor to the Rome Statute, the ILC draft on environmental damage has found its way into Article 8(2)(b)(iv) of the Rome Statute. It should be noted that the requirement of 'widespread, long-term and severe damage to the natural environment' was adapted from the 1977 Environmental Modification Convention which uses a relatively less onerous requirement of 'widespread, long-term or severe damage to the natural environment'.

Christian Tomuschat, a member of the Working Group on the issue of wilful damage to the environment and of the ILC for a period of 11 years

⁵⁸ ILC (XLVIII)/DC/CRD.3, ILCYB (1996), vol. II, Pt. I.

⁵⁹ ILCYB (1996), vol. I, 2431st meeting, 21 May 1996. In respect of including ecocide as part of war crimes, there were 12 votes in favour, 1 against, 4 abstentions; as regards including ecocide as part of crimes against humanity, there were 9 votes in favour, 9 against, 2 abstentions.

⁶⁰ ILCYB (1996), vol. I, 2431st meeting, 21 May 1996.

⁶¹ Gauger et al. (n. 31), 11.

⁶² A/CN.4/466, ILCYB (1995), vol. II, Pt. I, 35.

between 1985 and 1996, made the following comment on the politics that shaped the development of the provision on crimes against the environment when the Draft Code of the Offence against the Peace and Security of Mankind was prepared:

‘One cannot escape the impression that nuclear arms played a decisive role in the minds of many of those who opted for the final text which now has been emasculated to such an extent that its conditions of applicability will almost never be met even after humankind would have gone through disasters of the most atrocious kind as a consequence of conscious action by persons who were completely aware of the fatal consequences their decisions would entail.’⁶³

In light of the above discussion, it can therefore be seen that ecocide can be criminalised as a legacy of Nuremberg although there are powerful interests against its criminalisation which have made the legacy a ‘forgotten’ one. This point will be taken up further in the course of this discourse.

III. Ecocide in Domestic Penal Codes

Although ecocide is now vestigial, some States have included it in their penal codes. The first State is Vietnam⁶⁴ due to its experience in the Vietnam War. Vietnam was followed by Russia⁶⁵ in 1996. After the collapse of the USSR, newly emerged States such as Armenia,⁶⁶ the Republic of Moldova,⁶⁷

⁶³ Christian Tomuschat, ‘Crimes against the Environment’, *Env. Policy & Law* 26 (1996), 242-243 (243).

⁶⁴ Penal Code Vietnam 1990, Art. 278.

⁶⁵ Criminal Code of the Russian Federation 1996, No. 63-FZ of 13 June 1996, Art. 358, <<https://www.legal-tools.org/doc/8eed35/pdf/>>, last access 2 March 2024. In this article, it is provided as follows: ‘Article 358. Ecocide Massive destruction of the animal or plant kingdoms, contamination of the atmosphere or water resources, and also commission of other actions capable of causing an ecological catastrophe, shall be punishable by deprivation of liberty for a term of 12 to 20 years.’

⁶⁶ Criminal Code of the Republic of Armenia 2003, Art. 394, <https://track.unodc.org/uploads/documents/BRI-legal-resources/Armenia/21_-Criminal_Code_of_RA_2003_-_EN.pdf>, last access 2 March 2024. In this article, it is stated thus: ‘Article 394. Ecocide. Mass destruction of flora or fauna, poisoning the environment, the soils or water resources, as well as implementation of other actions causing an ecological catastrophe, is punished with imprisonment for the term of 10 to 15 years.’

⁶⁷ Criminal Code of the Republic of Moldova 2002, Art. 136, <https://sherloc.unodc.org/cld/uploads/res/document/mda/2002/criminal_code_of_the_republic_of_moldova_html/Republic_of_Moldova_Criminal_Code.pdf>, last access 2 March 2024. In this article, it is stated as follows: ‘Article 136. Ecocide Deliberate mass destruction of flora and fauna, poisoning the atmosphere or water resources, and the commission of other acts that may cause or caused an ecological disaster shall be punished by imprisonment for 10 to 15 years.’

Ukraine,⁶⁸ Georgia,⁶⁹ Kazakhstan,⁷⁰ Kyrgyzstan,⁷¹ and Tajikistan⁷² have included ecocide in their respective penal codes. However, it is not clear whether the crime is treated as a crime of intent or one of strict liability.⁷³ In France where ecocide is not codified, fines have been imposed on the grounds of 'ecological prejudice'. In 2008, the Criminal Court of Paris imposed a fine of €375,000 against Total SA for maritime pollution due to the sinking of the Erika.⁷⁴ This was the maximum penalty permitted in law and the Court justified its imposition on the ground of 'ecological prejudice'.⁷⁵ This decision was the first in France where a company was convicted for environmental damage.⁷⁶

⁶⁸ Criminal Code of Ukraine 2001, Art. 441, <[chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://sherloc.unodc.org/cld/uploads/res/document/ukr/2001/criminal-code-of-the-republic-of-ukraine-en_html/Ukraine_Criminal_Code_as_of_2010_EN.pdf](https://sherloc.unodc.org/cld/uploads/res/document/ukr/2001/criminal-code-of-the-republic-of-ukraine-en_html/Ukraine_Criminal_Code_as_of_2010_EN.pdf)>, last access 2 March 2024. In this article, it is stated as follows: 'Article 441. Ecocide Mass destruction of flora and fauna, poisoning of air or water resources, and also any other actions that may cause an environmental disaster – shall be punishable by imprisonment for a term of eight to fifteen years.'

⁶⁹ Criminal Code of Georgia 1999, Art. 409, <https://track.unodc.org/uploads/documents/BRI-legal-resources/Georgia/14_-_Criminal_Code_of_Georgia.pdf>, last access 2 March 2024. In this article, it is provided as follows: 'Article 409. Ecocide, i. e. contamination of atmosphere, land and water resources, mass destruction of flora and fauna or any other action that could have caused ecological disaster – shall be punishable by imprisonment extending from eight to twenty years in length.'

⁷⁰ Criminal Code of the Republic of Kazakhstan No. 167 of 16 July 1997, Art. 161, <https://sherloc.unodc.org/cld/uploads/res/document/the-criminal-code-of-the-republic-of-kazakhstan_html/Kazakhstan_Criminal_Code_1997_english.pdf>, last access 2 March 2024. In this article, it is stated thus: 'Article 161. Ecocide Mass destruction of plant or the animal world, poisoning of the atmosphere, land or water resources, and also the commission of other offences, caused or able to cause ecological disaster are punished with the deprivation of liberty for a term of 10 to 15 years.'

⁷¹ Criminal Code of the Kyrgyz Republic No. 127 of 28 October 2021 (as amended up to Law No. 122 of 22 June 2023), Art. 409, <<http://cbd.minjust.gov.kg/act/view/ru-ru/112309>>, last access 2 March 2024. In this article, it is stated thus: 'Article 409. Ecocide Mass destruction of flora or fauna, poisoning of the atmosphere or water resources, as well as the commission of other actions, which may lead or have led to an environmental disaster, – shall be punishable by imprisonment for a period of twelve to fifteen years.' (Original in Russian; Google translation).

⁷² Criminal Code of the Republic of Tajikistan 1998, Art. 400, <<https://www.legal-tools.org/doc/a495e5/pdf/>>, last access 2 March 2024. In this article, it is provided as follows: 'Article 400. Ecocide Mass destruction of flora and fauna, poisoning the atmosphere or water resources, as well as commitment of other actions which may cause ecological disasters is punishable by imprisonment for a period of 15 to 20 years.'

⁷³ Gauger et al. (n. 31).

⁷⁴ This is the name of a ship.

⁷⁵ Mehta and Merz (n. 1), 6.

⁷⁶ Mehta and Merz (n. 1), 6.

IV. Recent Developments

As previously stated, there are four international crimes,⁷⁷ all of which are considered to be the most serious crimes of concern to the international community.⁷⁸ It is suggested that ecocide should become the fifth international crime.⁷⁹ This call resonates with the past. Higgins in her submission to the United Nations defines ecocide as ‘the extensive damage, destruction to or loss of ecosystems of a given territory whether by human agents or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished’.⁸⁰ Currently, the United Nations is considering the Universal Declaration of Earth Rights⁸¹ and just as the right to life is enshrined in the Universal Declaration of Human Rights,⁸² the Earth’s right to life is intended to be en-

⁷⁷ See Article 5 of the Rome Statute, done at Rome on 17 July 1998, in force on 1 July 2002, 2187 UNTS 38544. It should be noted that the crime of aggression was not defined until 11 June 2010 in Kampala, Uganda by the Review Conference of the Rome Statute as mandated by Art. 123(1) Rome Statute. The adoption of the said definition took effect in July 2018. Meanwhile at customary international law, aggression which has its precursor in crime against peace is an international crime. See Charter of the International Military Tribunal. It should also be noted that at various domestic jurisdictions aggression constitutes a crime. See the following Criminal Codes: Germany (Art. 80: ‘Whoever prepares a war of aggression [envisaged in Art. 26 para. 1 of the Basic Law] in which the Federal Republic of Germany is supposed to participate and thereby creates a danger of war for the Federal Republic of Germany, shall be punished with imprisonment for life or for no less than ten years’); Bulgaria (Art. 409); the Russian Federation (Art. 353); Ukraine (Art. 437); Armenia (Art. 384); Uzbekistan (Art. 151); Tajikistan (Art. 395); Latvia (Sec. 72); Moldova (Art. 139), Macedonia (Art. 415). See also Art. 1 of the Iraqi Law no. 7 of 17 August 1958 (which criminalises ‘Using the country’s armed forces against the brotherly Arab countries threatening to use forces or instigating foreign powers to jeopardise its security or plotting to overthrow the existing regime or interfere in their internal affairs against its own interest, or spending money for plotting against them or giving refuge to the plotters against them or attacking in international fields or through publications their heads of state.’). In addition, see Antonio Cassese, ‘On Some Problematical Aspects of the Crime of Aggression’, LJIL 20 (2007), 841-849 (843).

⁷⁸ Article 5 Rome Statute done at Rome on 17 July 1998, in force on 1 July 2002, 2187 UNTS 38544.

⁷⁹ Polly Higgins, *Eradicating Ecocide: Laws and Governance to Prevent the Destruction of our Planet* (Shepherd-Walwyn (Publishers) Ltd 2010), 61-72.

⁸⁰ See Higgins, Short and South (n. 43), 257.

⁸¹ Universal Declaration of Earth’s Rights <chrome-extension://efaidnbmninnibpcapjcgcle findmkaj/http://classic.austlii.edu.au/au/journals/SCULawRw/2011/14.pdf>, last access 28 February 2024.

⁸² Universal Declaration of Human Rights, adopted and proclaimed by UNGA Res 217 A (III) of 10 December 1948. See Art. 3 where the right to life is enshrined by providing as follows: ‘Everyone has the right to life, liberty and security of person.’

shrined in the Universal Declaration of Earth Rights.⁸³ Invariably, as the crime of genocide is rooted in Human Rights,⁸⁴ so shall the crime of ecocide be rooted in Earth Rights.⁸⁵ With this development, human rights are linked with the environment and this serves as the basis for the call to recognise the rights of future generations. Since indigenous people are often the most affected whenever ecocide happens, it is little surprising that the rights of indigenous people are also linked to the conservation of the environment. A number of declarations have recognised the rights of future generations⁸⁶ and the rights of indigenous people in this respect.⁸⁷ The Aarhus Convention recognises public interest litigation for the protection of the environment.⁸⁸

At the domestic level, similar developments have taken place. Ecuador in its 2008 Constitution recognised the Rights of Mother Earth.⁸⁹ Bolivia followed suit in 2010 by adopting the Law of the Rights of Mother Earth⁹⁰ where nature is granted the right to life,⁹¹ biodiversity,⁹² water,⁹³ clean air,⁹⁴

⁸³ See Art. 2(1)(a) of the Universal Declaration of Earth's Rights where Earth's Right to life is provided for as follows: 'Mother Earth and all beings of which she is composed have the following inherent rights: (a) the right to life and to exist.'

⁸⁴ See the Convention on the Prevention and Punishment of the Crime of Genocide. Genocide was coined by the Polish-Jewish lawyer Rafael Lemkin during World War II. It first existed in Polish language as *ludobojstwo* but adapted by Lemkin in 1944 for use in English Language as 'genocide' from Greek *genos* (race, nation) and the Latin *cide* (to kill).

⁸⁵ See the Press Release on 04/10/11 of the Hamilton Group.

⁸⁶ See the Declaration of the United Nations Conference on the Human Environment, UN Doc. A/Conf.48/14/Rev. 1(1973); Stockholm Declaration, 11 ILM 1416 (1972); The United Nations Conference on Environment and Development A/CONF.151/26 (vol. 1) (1992) (Rio Declaration); United Nations Framework Convention on Climate Change (1992), 1771 UNTS 107. There is also the possibility that the Commissioner for Future Generations may be recognised by the United Nations. See UN Report of the Secretary-General, A/68/322 (15 August 2013).

⁸⁷ United Nations Declaration on the Rights of Indigenous Peoples A/61/L.67/Annex Adopted 7 September 2007 (UN: 2008) No. 07-58681; The International Labour Organization's Convention No. 169. The UN Declaration on the Rights of Indigenous people states in its Article 29 that indigenous people are entitled to 'the conservation and protection of the environment and the productive capacity of their lands or territories and resources'.

⁸⁸ The United Nations Economic Commission for Europe (UNECE) Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 2161 UNTS 447.

⁸⁹ See the Constitution of Ecuador, 2008 (where Earth's rights have been guaranteed in Ch. 7, Arts 71-74) <<https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>>, last access 2 March 2024.

⁹⁰ Law of the Rights of Mother Earth (Law 071 of the Plurinational State).

⁹¹ Law of the Rights of Mother Earth (n. 90), Art. 7(1).

⁹² Law of the Rights of Mother Earth (n. 90), Art. 7(2).

⁹³ Law of the Rights of Mother Earth (n. 90), Art. 7(3).

⁹⁴ Law of the Rights of Mother Earth (n. 90), Art. 7(4).

equilibrium,⁹⁵ restoration,⁹⁶ and freedom from pollution.⁹⁷ The rights of future generations have been recognised in the constitutions of a number of countries such as Bolivia,⁹⁸ Ecuador,⁹⁹ Norway,¹⁰⁰ Germany,¹⁰¹ South Africa,¹⁰² and Kenya.¹⁰³ Similarly, a number of States have recognised the right or ‘holiness’ of certain natural sites which belong to indigenous people.¹⁰⁴ New Zealand and Spain conferred legal personality to great apes in 1999 and 2008 respectively.¹⁰⁵ All these developments reinforce the need for having ecocide criminalised.

Creating the crime of ecocide, it is believed, will address the humanitarian and environmental issues caused by the use of natural resources at a global scale.¹⁰⁶ Although the belief in the capacity of ecocide to address serious environmental crimes has been contested¹⁰⁷ because of international law’s

⁹⁵ Law of the Rights of Mother Earth (n. 90), Art. 7(5).

⁹⁶ Law of the Rights of Mother Earth (n. 90), Art. 7(6).

⁹⁷ Law of the Rights of Mother Earth (n. 90), Art. 7(7).

⁹⁸ Constitution of Bolivia, Art 9(6).

⁹⁹ Constitution of Ecuador, Arts 317 and 400, <<https://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>>, last access 28 February 2024. Art. 317 stipulates that in the management of non-renewable resources ‘the State shall give priority to responsibility between generations, the conservation of nature, the charging of royalties or other non-tax contributions and corporate shares [...]’ while Art. 400 stipulates that ‘The State shall exercise sovereignty over biodiversity, whose administration and management shall be conducted on the basis of responsibility between generations.’

¹⁰⁰ Constitution of Norway 1814, Art. 112, <chrome-extension://efaidnbmnnnibpcajpcgclefindmkaj/https://www.constituteproject.org/constitution/Norway_2014.pdf>, last access 28 February 2024. The article provides that every person has a right to an environment that is conducive to health and that ‘Natural resources should be managed on the basis of comprehensive long-term considerations whereby this right will be safeguarded for future generations as well.’

¹⁰¹ German Basic Law, Art. 20(a), <https://www.constituteproject.org/constitution/German_Federal_Republic_2014>, last access 2 March 2024. The article stipulates that ‘Mindful also of its responsibility towards future generations, the state shall protect the natural foundations of life and animals by legislation and, in accordance with law and justice, by executive and judicial action, all within the framework of the constitutional order.’

¹⁰² Constitution of South Africa 1996, Art. 24 states that everyone has the right to ‘have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures [...]’

¹⁰³ Constitution of Kenya 2010, Art. 42 guarantees right to ‘clean and healthy environment’ which includes having the environment ‘protected for the benefit of present and future generations through legislative and other measures [...]’.

¹⁰⁴ Mehta and Merz (n. 1), 6.

¹⁰⁵ Mehta and Merz (n. 1), 6.

¹⁰⁶ Heather Ackroyd and Dan Harvey, ‘The Ecocide Trial’, <<https://www.ackroydandharvey.com/carbon-13/>>, last access 2 March 2024.

¹⁰⁷ Eliana Cusato and Emily Jones, ‘The “Imbroglia” of Ecocide: A Political Economic Analysis’ *LJIL* (2023), 1-20, doi:10.1017/S0922156523000468.

'inherent biases and contradictions',¹⁰⁸ nonetheless it can still 'frame problems, suggest fault and responsibility, propose solutions and remedies'.¹⁰⁹ Thus, by criminalising ecocide, proponents of the crime contend that it has the potential to change inter-governmental policy and action on climate change and prevent over-exploitation of natural resources.¹¹⁰ However, some people have expressed their misgivings over making ecocide an international crime. It has been contended, *inter alia*, that criminalising ecocide is antithetical to economic development and that the destruction of the ecosystem is not amenable to the scrutiny of criminal justice system because environmental harms may not always manifest and even when they do, it may not be easy to link them with particular acts or omissions.¹¹¹ This means that economic activities which may lead to a higher standard of living may be stifled or substantially curtailed. The destruction of the ecosystem may also be sometimes an inevitable consequence of industrialisation. Hence, punishing the destruction of the ecosystem may automatically foreclose engaging in industrialisation. It has been submitted further that the issue of climate change, for example, transcends the cognitive capacity of criminal judicial process.¹¹² This is because the principle of causation is an essential element in criminal law and it is almost always difficult to ascertain that a specific act leads to climate change. Since there are almost always several possible causes, pinning it down to a specific one becomes almost impossible.

In order to demonstrate the workability of criminalising ecocide and to expose the weakness of the arguments of those who entertain misgivings, a mock trial was organised by the Hamilton Group on 30 September 2011 at

¹⁰⁸ Eliana Cusato, *The Ecology of War and Peace: Marginalising Slow and Structural Violence in International Law* (Cambridge University Press 2021), 13.

¹⁰⁹ Antony Anghie and Bhupinder S. Chimni, 'Third World Approaches to International Law and Individual Responsibility in Internal Conflicts', *Chinese Journal of International Law* 2 (2003), 77-102 (101).

¹¹⁰ See the Press Release of the Hamilton Group on 21/09/11 (n. 106). See the comment of Charles Perry, Co-Founder, SecondNature LLP and Former Director, BP Green Energy, cited in the Press Release: 'There is healthy business, then there is greed and sheer madness. A law against ecocide will help companies avoid slipping from the former into the latter.'

¹¹¹ Bryan Walker, 'Global Warming and the Future of New Zealand', Hot Topic (posted on 8 September 2011), <http://hot-topic.co.nz/the-crime-of-ecocide/?utm_source=rss&utm_medium=rss&utm_campaign=the-crime-of-ecocide>, last access 28 February 2024.

¹¹² See Bryan Walsh, 'Is Ecocide a Crime?', Time (Ecocentric Blog, Posted on 24 October 2011), <<http://ecocentric.blogs.time.com/2011/10/24/is-ecocide-a-crime/>>, last access 28 February 2024. In this piece, Higgins, in trying to debunk argument on climate change was reported to have stated thus: 'You can be a climate denier and still get what I'm talking about. For the purpose of establishing ecocide as a crime we don't have to prove it's climate change and that's very important here.'

the United Kingdom Supreme Court.¹¹³ It was organised in such a way that what happened was not pre-scripted and the jury was left to determine whether the crime of ecocide was established and the Earth's right to life was breached.¹¹⁴ It took the jury just fifty minutes to return with two unanimous verdicts finding the Global Petroleum Company's and Glamis Group's CEOs guilty of ecocide. Both of them were convicted on the charges of ecocide relating to oil extraction at the Athabasca Tar Sands in Canada.¹¹⁵

¹¹³ See The Hamilton Group, 'The Ecocide Trial', <<http://www.thehamiltongroup.org.uk/common/ecocide.asp>>, last access 28 February 2024.

¹¹⁴ The Hamilton Group (n. 113).

¹¹⁵ Andrew Raingold, 'Ecocide: Crime against Nature and the Need for a Law to Prevent It'. The Guardian (UK) <<https://www.theguardian.com/sustainable-business/blog/ecocide-environment-green-policy-un-law?newsfeed=true>>, last access 2 March 2024. In Polly Higgins, *Earth is Our Business: Changing the Rules of the Game* (Shepherd-Walwyn (Publishers) Ltd 2012), Appendix 1, Particulars of charges read thus:

Count 1

Statement of Offence: Ecocide contrary to section 1 (1) and section 2 of the Ecocide Act 2010.

Particulars of Offence: Between 22nd day of April and 31st day of August 2010 in his role as Chief Executive Officer, Mr. Bannerman of Global Petroleum Company (GPC) had authority over and responsibility for a semi-submersible Mobile Offshore Drilling Unit when an explosion on the platform caused an oil spill in excess of 250 million gallons of crude oil into the Gulf of Mexico sea resulting in extensive destruction, damage to or loss ecosystem(s) covering an area in excess of 200 square kilometres of ocean, to such an extent that the peaceful enjoyment by the inhabitants of the territory has been severely diminished thereby:

1. causing injury to 2,086 birds;
2. causing the death of 2,303 birds;
3. putting birds at risk of injury contrary to section 1 (1) and section 2 of the Ecocide Act 2010.'

'Count 2

Statement of Offence: Ecocide contrary to section 1 (1) and section 2 of the Ecocide Act 2010.

Particulars of Offence: Between 28th day of March and 6th day of September 2010 in his role as Chief Executive Officer, Mr. Bannerman of Global Petroleum Company (GPC), had authority and responsibility of all GPC operations in the Tar Sands. As a consequence of extraction of oil from the Athabasca Tar Sands in Canada the creation of tailing ponds has led to extensive destruction, damage to or loss of ecosystem(s) to such an extent that the peaceful enjoyment by the inhabitants of that territory, and of the other territories, has been severely diminished thereby putting birds at risk of injury and death, contrary to section 1(1) and section 2 of the Ecocide Act 2010.'

'Count 3

Statement of Offence: Ecocide contrary to section 1 (1) and section 2 of the Ecocide Act 2010.

Particulars of Offence: On 19th April 2011 in his role as Chief Executive Officer, Mr Tench of Glamis Group, had authority and responsibility of all Glamis Group operations in the Tar Sands. As a consequence of extraction of oil from the Athabasca Tar Sands in Canada the creation of tailing ponds has led to extensive destruction, damage to or loss of ecosystem(s) to such an extent that the peaceful enjoyment by the inhabitants of that territory, and of other territories, has been severely diminished thereby putting birds at risk of injury and causing 1,600 birds to die, contrary to sections 1(1) and section 2 of the Ecocide Act 2010.

However, the manager of Global Petroleum was acquitted of charges relating to the Gulf Oil Spill.¹¹⁶

A close perusal of the charges preferred against the defendants show that the jury adopted a liberal approach in finding the defendants guilty.¹¹⁷ This tends to negate the principle of legality. Similarly, the definition offered by Higgins is of little help for the purposes of criminalising ecocide because it is at odds with modern criminal law doctrine. This is because her definition is suggestive of strict liability,¹¹⁸ a concept that is only acceptable in tort but controversial in modern criminal jurisprudence. Bohlander states categorically that 'German law rejects any idea of strict liability'.¹¹⁹ Similarly, the Spanish legal system rejects strict liability.¹²⁰ In the same vein, Argentina¹²¹ and Egypt¹²² reject the application of strict liability in their criminal justice systems. However, strict liability is the rule rather than the exception with respect to terrorism in Australia.¹²³ Strict liability also applies to a large number of offences in the United Kingdom.¹²⁴ The rationale, first, for advocating strict liability is that it encourages those engaged in certain activities to intensify efforts such that breaches do not occur. Thus, the greater the harm, the more it needs to be deterred.¹²⁵ But this punishes the careful and the careless. Negligence as an element of *mens rea* is by far much more appealing to improve business practices.¹²⁶ Secondly, it is considered that proving *mens rea* is difficult where the defendant is in control. But there is nothing to show that this is more difficult here than in other criminal cases. In any event, requiring the prosecution to establish negligence or the defendant to disprove intent, knowledge, or negligence is sufficient.¹²⁷ It is therefore understandable

¹¹⁶ Higgins, Earth (115).

¹¹⁷ Higgins, Earth (115).

¹¹⁸ On strict liability, see Glanville L. Williams and Bob A. Hepple, *Foundations of the Law of Tort* (2nd edn, Butterworth 1984), 127-132.

¹¹⁹ Michael Bohlander, *Principles of German Criminal Law* (Hart Publishing 2009), 20.

¹²⁰ Kevin Jon Heller and Marcus D. Dubber, 'Introduction' in: Kevin Jon Heller and Marcus D. Dubber (eds), *The Handbook of Comparative Criminal Law* (Stanford University Press 2011), 8.

¹²¹ Marcelo Ferrante, 'Argentina' in: Kevin Jon Heller and Marcus D. Dubber (eds), *The Handbook of Comparative Criminal Law* (Stanford University Press 2011), 24.

¹²² Sadiq Reza, 'Egypt' in: Kevin Jon Heller and Marcus D. Dubber (eds), *The Handbook of Comparative Criminal Law* (Stanford University Press 2011), 188.

¹²³ Simon Bronitt, 'Australia' in: Kevin Jon Heller and Marcus D. Dubber (eds), *The Handbook of Comparative Criminal Law* (Stanford University Press 2011), 82.

¹²⁴ Andrew J. Ashworth, 'United Kingdom' in: Kevin Jon Heller and Marcus D. Dubber (eds), *The Handbook of Comparative Criminal Law* (Stanford University Press 2011), 537.

¹²⁵ Michael Hor Yew Meng, 'Strict Liability in Criminal Law: A Re-Examination', *SJLS* (1996) 312-341 (318).

¹²⁶ Meng (n. 125), 319.

¹²⁷ Meng (n. 125), 320.

why several scholars argue against strict liability for ecocide.¹²⁸ It is noteworthy that Higgins's definition is rooted in the early development of the law on ecocide where intent was considered irrelevant.

V. Some Probable Options

The historical evolution of ecocide shows that one time ecocide was considered being criminalised as genocide.¹²⁹ At some other time, ecocide was considered being criminalised as crime against humanity (ostensibly when committed during peace time) and war crime.¹³⁰ Although ecocide was not considered being criminalised as aggression, nonetheless some States' experiences of aggressive war informed the criminalisation of ecocide in their domestic penal statutes.¹³¹ Before its complete obliteration, there were also attempts to criminalise ecocide as a distinct crime,¹³² which underscores the call in recent times for making it an international crime. All these are probable options open to the international community in criminalising ecocide.

1. Criminalising Ecocide as Genocide

Genocide is the commission of certain acts 'with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such'.¹³³ One of the acts which constitutes genocide, if committed with genocidal intent, is 'deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part'. There are three probable scenarios to criminalise environmental harm as genocide. The first one is that the perpetrator intended to destroy, in whole or in part, a group and the deliberate destruction of the ecosystem formed an integral part of this plan. In other words, the perpetrator deliberately destroyed the ecosystem to destroy a group in whole or in part. The second scenario encompasses situations where someone wants to destroy a group in whole or in part

¹²⁸ See Andrew P. Simester (ed.), *Appraising Strict Liability* (Oxford University Press 2005), v-vi.

¹²⁹ See para. II. 2.

¹³⁰ See para. II. 3.

¹³¹ See para. III.

¹³² See para. II. 3.

¹³³ See Art. 2 Convention on the Prevention and Punishment of the Crime of Genocide 1948, 78 UNTS 277.

without intending to destroy the environment, but the environment is nonetheless destroyed in the process. For example, biological weapons are used against a group, thereby destroying the environment. Here, the impact on the environment can be punished as genocide since a person is criminally responsible for the necessary consequence of his/her action. To the extent that the destruction of the environment is a necessary consequence of the means to carry out the intent to destroy in whole or in part, the person will also be criminally liable. The third scenario involves instances where a genocidal intent is imputed because a person is reckless as to the consequence of his/her action resulting in the destruction of the ecosystem and a group in whole or in part. In this scenario, there is no genocidal intent *per se*, the person is just reckless in whatever he/she is doing and causes the destruction of the ecosystem and a group.

To find someone guilty of ecocide in the second scenario is not that difficult. It is to find someone guilty of ecocide in the first scenario and to some extent in the third scenario that may pose some problems. This is the point where the invocation of the development argument against ecocide has its strongest appeal. As previously noted, the development argument suggests that it is legitimate to pursue a higher quality of life through the application of science and technology despite its adverse effects on the environment. Where the ecosystem is destroyed with the intent to destroy a group in whole or in part, the claim of pursuing the right to development can serve to hide a genocidal intent.¹³⁴ That is, the intent to destroy is the real motive but development is invoked in the public as a motive in order to diffuse allegations of genocide. A notable example for such a use of the development argument was the killing of the Brazilian Indians. Brazil maintained that the killing of the Brazilian Indians was 'not because they were Indians'¹³⁵ but 'because their land was desired'¹³⁶ and 'so it was not genocide'.¹³⁷ A more poignant example was the killing of the 'Marsh Arabs' by the Iraqi Government. The 'Marsh Arabs' participated in an attempt to topple the government of Saddam Hussein and failed. The Iraqi Government drained the Mesopotamia (by building dams and canals on rivers Tigris and Euphrates) to the extent that these Marsh Arabs could no longer

¹³⁴ 'A country which causes fatal environmental degradation while exercising its right to development now has the conceptual basis for contending that its actions were justified by the greater good of the country as a whole. In the light of this potential, the prospects for proving a specific "intent to destroy" become increasingly small': Peter Sharp, 'Prospects for Environmental Liability in the International Criminal Court', Va. Env'tl. L.J. 18 (1999), 217-243 (234).

¹³⁵ Israel W. Charny (ed.), *Encyclopedia of Genocide* (ABC-CLIO 1999), 3.

¹³⁶ Charny (n. 135), 3.

¹³⁷ Charny (n. 135), 3.

survive leading to the death and migration of many.¹³⁸ Here, one may impute a genocidal intent to the Iraqi government if one can establish that the government recklessly pursued its so-called development agenda leading to the destruction of the ‘Marsh Arabs’ and the environment in which they had always lived.

What the above scenarios indicate is that finding genocidal intent may be somewhat difficult at least as the law currently stands. However, these difficulties of proving genocidal intent were probably not foreseen when it was proposed that ecocide should be criminalised as genocide. Ecocide as part of genocide was considered to include ‘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’.¹³⁹ It was observed that ‘indigenous groups are too often the silent victims of such actions’¹⁴⁰ and that the ‘physical destruction of indigenous communities’¹⁴¹ was tantamount to genocide which required ‘special and urgent action’.¹⁴² At this time, it was the Aché Indians that were in issue. They were being forced out of their forest habitation by the Paraguayan Government through the policy of mining and cattle-raising in 1970.¹⁴³ Irrespective of the merit in prosecuting ecocide as genocide, the point is that humans are the focus and not nature and that ecocide can only be prosecuted peripherally. In addition, based on the examples discussed above, environmental harm would have indeed materialised.

¹³⁸ Aaron Schwabach, ‘Ecocide and Genocide in Iraq: International Law, the Marsh Arabs, and Environmental Damage in Non-International Conflicts’, *Colo. J. Int’l L. & Pol’y* 15 (2004) 1–28 (4). See also Tara Smith, ‘Creating a Framework for the Prosecution of Environment Crimes in International Criminal Law’ in: William A. Schabas, Yvonne McDermot and Niamh Hayes (eds), *The Ashgate Research Companion to International Criminal Law: Critical Perspectives* (Routledge 2016), 45–62.

¹³⁹ Benjamin Whitaker, *Revised and Updated Report on the Question of the Prevention and Punishment of the Crime of Genocide* (United Nations Economic and Social Council Commission on Human Rights, Sub-Commission on Prevention of Discrimination and Protection of Minorities, 1985), 33.

¹⁴⁰ Whitaker (n. 139), 33.

¹⁴¹ Whitaker (n. 139), 33.

¹⁴² Whitaker (n. 139), 33.

¹⁴³ Smith (n. 138), 45–62.

2. Criminalising Ecocide as Crimes against Humanity

When it was first envisaged that ecocide could be prosecuted as crime against humanity, crimes against humanity had not yet been codified.¹⁴⁴ It was in the realm of customary international law and it was in a state of flux.¹⁴⁵ Crimes against humanity has now been codified in the Rome Statute of the International Criminal Court¹⁴⁶ reflecting 'the fundamental structure and content of these crimes'¹⁴⁷ and giving 'compelling evidence of the customary international law of crimes against humanity'.¹⁴⁸ It is defined in the Rome Statute as murder,¹⁴⁹ extermination,¹⁵⁰ enslavement,¹⁵¹ deportation or forcible transfer of population,¹⁵² imprisonment or other severe deprivation of physical liberty in violation of fundamental rules of international law,¹⁵³ torture,¹⁵⁴ rape,¹⁵⁵ persecution,¹⁵⁶ enforced disappearance of per-

¹⁴⁴ On crimes against humanity and the efforts made in codifying it, see Margaret McAuliffe deGuzman, 'The Road from Rome: The Developing Law of Crimes against Humanity', HRQ 22 (2000), 335-403; Margaret M. deGuzman, 'Crimes against Humanity' in: William A. Schabas and Nadia Bernaz (eds), *Routledge Handbook of International Criminal Law* (Routledge 2011), 121-138; Leila Nadya Sadat (ed.), *Forging a Convention for Crimes Against Humanity* (Cambridge University Press 2011).

¹⁴⁵ In the Agreement for the Prosecution and Punishment of the Major War Criminals of the European Axis, Aug. 1945, (The Charter of the International Military Tribunal for the Trial of the Major War Criminals ['Nuremberg Charter']), 82 UNTS 279, reprinted in AJIL 39 (1945), 257-258 (257) crimes against humanity was placed in the war context and defined as 'murder, extermination, enslavement, deportation, and other inhumane acts committed against any civilian population, before or during the war, or persecutions on political, racial or religious grounds in execution of or in connection with any crime within the jurisdiction of the Tribunal, whether or not in violation of the domestic law of the country were perpetrated'. However, the war context was removed in the definition found in the Allied controlled territories where Nazi war criminals were prosecuted. Crimes against humanity was defined as '[a]trocities or offenses, including but not limited to murder, extermination, enslavement, deportation, imprisonment, torture, rape, or other inhumane acts committed against any civilian population, or persecutions on political, racial or religious grounds whether or not in violation of the domestic laws of the country where perpetrated.'. Control Council Law No. 10, Punishment of Persons Guilty of War Crimes, Crimes Against Peace and Against Humanity, Art. 2(1)(c), 20 December 1945; Charter of the International Military Tribunal for the Far East, Art. 5(c), 19 January 1946, 4 Bevans 20, TIAS No. 1589.

¹⁴⁶ See Rome Statute, Art. 7.

¹⁴⁷ DeGuzman, 'Crimes against Humanity' (n. 144).

¹⁴⁸ DeGuzman, 'The Road from Rome' (n. 144), 353.

¹⁴⁹ Rome Statute, Art. 7(1)(a).

¹⁵⁰ Rome Statute, Art. 7(1)(b).

¹⁵¹ Rome Statute, Art. 7(1)(c).

¹⁵² Rome Statute, Art. 7(1)(d).

¹⁵³ Rome Statute, Art. 7(1)(e).

¹⁵⁴ Rome Statute, Art. 7(1)(f).

¹⁵⁵ Rome Statute, Art. 7(1)(g).

¹⁵⁶ Rome Statute, Art. 7(1)(h).

sons,¹⁵⁷ apartheid,¹⁵⁸ and ‘other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health’.¹⁵⁹

Extermination ‘includes the intentional infliction of conditions of life, *inter alia* the deprivation of access to food and medicine, calculated to bring about the destruction of part of a population’¹⁶⁰ while deportation or forcible transfer of population means ‘forced displacement of the persons concerned by expulsion or other coercive acts from the area in which they are lawfully present, without grounds permitted under international law’.¹⁶¹ Persecution ‘means the intentional and severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity’.¹⁶² All these recognised ‘acts’¹⁶³ must be committed ‘as part of a widespread or systematic attack directed against any civilian population, with knowledge of the attack’.¹⁶⁴ ‘Attack directed against any civilian population’ means ‘a course of conduct involving the multiple commission of acts referred to [...] against any civilian population, pursuant to or in furtherance of a State or organizational policy to commit such attack’.¹⁶⁵

Ecocide may constitute a crime against humanity in various ways. It may amount to extermination since the destruction of the ecosystem may be tantamount to intentional infliction of conditions of life calculated to bring about the destruction of part of a population. The destruction of the ecosystem may also result in ‘expulsion’ or may be subsumed under ‘other coercive acts’ and thus, fall under another head of the crimes against humanity. Ecocide may also be committed as persecution since the destruction of the ecosystem will inevitably lead to severe deprivation of fundamental rights contrary to international law by reason of the identity of the group or collectivity. Where any of these alternatives fail, ecocide can possibly be subsumed under inhumane acts of a similar character to those crimes earlier listed, i. e. extermination, forcible transfer of population, and persecution, if it causes great suffering, or serious injury to body or to mental or physical health.

¹⁵⁷ Rome Statute, Art. 7(1)(i).

¹⁵⁸ Rome Statute, Art. 7(1)(j).

¹⁵⁹ Rome Statute, Art. 7(1)(k).

¹⁶⁰ Rome Statute, Art. 7(2)(b).

¹⁶¹ Rome Statute, Art. 7(2)(d).

¹⁶² Rome Statute, Art. 7(2)(g).

¹⁶³ Rome Statute, Art. 7(1).

¹⁶⁴ Rome Statute, Art. 7(1).

¹⁶⁵ Rome Statute, Art. 7(2)(a).

If one considers the above definition of crimes against humanity, it is a crime based essentially on circumstances.¹⁶⁶ Thus, where a government has embarked on development so-called and the foreseeable consequence which eventually results falls into any of the above definitions of crimes against humanity, the consequence could be said to be intended.¹⁶⁷ Therefore, there is no need to prove any genocidal intent except in respect of persecution. This makes ecocide relatively easier to prosecute as a crime against humanity than as genocide in spite of the requirement of the attack being 'widespread' and 'systematic'. The claim of the Brazilian government that it only desired the land of the Brazilian Indians and that their killing was not due to their identity could not be sustained from the perspective of crimes against humanity. It is sufficient to find the commission of crimes against humanity once the so-called development agenda foreseeably destroys their habitat leading to their extermination. The situation of the 'Marsh Arabs' may amount to forced disappearance as a crime against humanity since the building of the dams in rivers Tigris and Euphrates had the foreseeable consequence of displacing the Marsh Arabs. While it may be a bit easier to establish ecocide as crime against humanity than as genocide, it is important to bear in mind that nonetheless, nature is not the focus of crimes against humanity, but humans. In this respect, crimes against humanity and genocide are similar. In addition, environmental harm is also most likely to have occurred.

3. Criminalising Ecocide as a War Crime

After World War II, nine German civil administrators were charged before the United Nations War Crimes Commission with the excessive destruction

¹⁶⁶ In the Ministries Case reprinted in XIV Trials of War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10 (1949), 611 the Tribunal convicted the defendants for stealing properties which belonged to Jews and other inmates of concentration camps. The Tribunal held that 'under the circumstances' the properties stolen amounted to crimes against humanity as they were 'part of a program of extermination'. In ICTY, *Prosecutor v. Tadić*, the verdict of 7 May 1997, case no. IT-94-1-T, T Ch II, 655, the Court held that 'the mental element required to be proven to constitute a crime against humanity is that the accused was aware of or willfully blind to facts or circumstances which would bring his or her acts within crimes against humanity'. See also *Attorney General v. Eichmann*, ILR 36 (1968), 5-344 (244); Supreme Court of Canada, *R. v. Finta* [1994] SCR 819.

¹⁶⁷ In SCSL, *Prosecutor v. Fofana and Kondewa*, judgment of 2 August 2007, case no. SCSL-04-14-T, para. 121, mental element is satisfied once the defendant had reason to know while in ICTY, *Prosecutor v. Kunarac*, judgment of 22 February 2001, case no. IT-96-23, para. 434; and ICTY, *Prosecutor v. Blaskić*, judgment of 3 March 2000, case no. IT-95-14-T, para. 254, it is sufficient once the defendant took the risk. In Art. 30 of the Rome Statute mental element is satisfied once there is 'awareness that a circumstance exists or a consequence will occur in the ordinary course of events'.

of Polish forests.¹⁶⁸ Their prosecution ‘may have been the first recognition of a purely environmental war crime’.¹⁶⁹ As the law of armed conflict did not contain any specific provision on the destruction of the ecosystem then, the prosecution of the German administrators hinged on the reckless destruction of property, forests being regarded as property.¹⁷⁰ Based on the same logic, General Alfred Jodl was also prosecuted and convicted at the Nuremberg trial on his scorched earth policy in Leningrad, Moscow, and Norway.¹⁷¹ In the same vein, General Lothar Rendulic was charged for his scorched earth policy when the German Army retreated from Norway.¹⁷² However, the charges were dropped as the policy was considered justified on the basis of military necessity.¹⁷³

In 1977, Additional Protocol I to the Geneva Conventions 1949 (API)¹⁷⁴ for the first time expressly prohibited the destruction of the ecosystem during international armed conflict. Article 35(3) of the Protocol prohibits ‘methods and means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment’. This provision was a response to the methods and means of warfare employed by the United States during the Vietnam War which elicited international outcry. Such methods as defoliation and cloud seeding were condemned due to their long and short term adverse effects on the natural environment and human health.¹⁷⁵ However, there is no provision similar to Article 35(3) in Additional Protocol II of the Geneva Conventions 1949 which regulates non-international armed conflicts.

In spite of the explicit prohibition of the destruction of the ecosystem in the law of armed conflict since 1977, the destruction of the ecosystem was not expressly criminalised until the adoption of the Rome Statute in

¹⁶⁸ United Nations War Crimes Commission, case no. 7150 (1948), History of the United Nations War Crimes Commission and the Development of the Laws of War, London, Her Majesty’s Stationery Office, 1948), 496, <<https://www.legal-tools.org/doc/cac045/pdf>>, last access 2 March 2024. See Aaron Schwabach, ‘Environmental Damage Resulting from the Nato Military Action against Yugoslavia’, *Colum. J. Envtl. L.* 25 (2000), 117-140 (125).

¹⁶⁹ Schwabach (n. 168).

¹⁷⁰ Carl E. Bruch, ‘All’s Not Fair in (Civil) War: Criminal Liability for Environmental Damage in Internal Armed Conflict’, *Vt. L. Rev.* 25 (2000-2001), 695-752 (716).

¹⁷¹ See Tara Weinstein, ‘Prosecuting Attacks That Destroy the Environment: Environmental Crimes or Humanitarian Atrocities?’, *Geo. Int’l Envt’l L. Rev.* 17 (2005), 697-722 (704).

¹⁷² ‘The Hostages Trial’, (Wilhelm List and Others), *Law Reports of Trials of War Criminals* 8 (1948), 66-69.

¹⁷³ Smith (n. 138), 45-62.

¹⁷⁴ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), 1125 UNTS 3 (1977), Arts 35(3) and 55.

¹⁷⁵ Smith (n. 138), 45-62.

1998.¹⁷⁶ In fact, it is more likely that the criminalisation of the destruction of the ecosystem in the Rome Statute was a response to the environmental damage caused by Iraq while retreating from Kuwait in 1991 than a consequence of API.¹⁷⁷ Nonetheless, the text of the Rome Statute in respect of the destruction of the ecosystem derived inspiration from the Additional Protocol I of the Geneva Conventions 1949.¹⁷⁸ But, just like Additional Protocol II omits rules on the protection of the environment, the destruction of the ecosystem is not a crime in non-international armed conflicts. After the Rome Statute, statutes establishing *ad hoc* tribunals contained provisions on environmental damage which are transcribed versions of that of the Rome Statute.¹⁷⁹

For the destruction of the ecosystem to amount to war crimes, Article 8(2)(b)(iv) of the Rome Statute stipulates thus:

'Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.'

The above provision makes the prosecution of ecocide as war crimes practically impossible. Firstly, the attack must be launched intentionally and the person launching the attack must be aware that the attack will incidentally lead to loss of life, injury to civilians, or damage to civilian objects. Secondly, the person must have known that the attack will cause widespread, long-term, and severe damage to the environment. This is practically impossible to prove.

Thirdly, interpreting the words 'widespread', 'long-term', and 'severe' in this context is inherently difficult. In *Tadić*, the International Criminal Tribunal for the former Yugoslavia (ICTY) held that 'widespread' refers to the number of victims.¹⁸⁰ Similarly, the Court noted in the *Kunarac* Trial judgment that 'widespread' refers to the large-scale nature of the attack and

¹⁷⁶ Rome Statute, Art. 8(2)(b)(iv).

¹⁷⁷ Marc A. Ross, 'Environmental Warfare and the Persian Gulf War: Possible Remedies to Combat Intentional Destruction of the Environment', *Dick. J. Int'l L.* 10 (1992), 515-540.

¹⁷⁸ Smith (n. 138), 45-62.

¹⁷⁹ United Nations Transitional Administration in East Timor, on the Establishment of Panels with Exclusive Jurisdiction over Serious Criminal Offences, *Untaet/Reg/2000/15*, 6 June 2000, (2000) s. 6(1)(b)(iv); Statute of the Iraqi Special Tribunal, 10 December 2003, Art. 13(b)(5).

¹⁸⁰ ICTY, *Prosecutor v. Tadić (alias 'Dule')*, judgment of 7 May 1997, case no. IT-94-1-T, para. 648.

the number of targeted persons or victims.¹⁸¹ In addition, the *Blaškić* Trial judgment found that ‘widespread’ means acts committed on a ‘large scale’ and ‘directed at a multiplicity of victims’¹⁸² while the *Kordić* Trial judgment held that a crime may be widespread or committed on a large scale by the ‘cumulative effect of a series of inhumane acts or the singular effect of an inhumane act of extraordinary magnitude’.¹⁸³ These decisions provide but little guidance for applying these requirements to the destruction of the natural environment where destruction may be in terms of square kilometres without necessarily involving human lives. Hence, taking inspiration from an Understanding accompanying the 1976 Convention on the Prohibition of Military or any other Hostile Use of Environmental Modification Technique (ENMOD)¹⁸⁴ may be a more promising approach to interpret these terms as it uses similar language. Although the Understanding in respect of the treaty does not apply to the Rome Statute, nothing precludes judges from drawing on it to interpret the Rome Statute. In the Understanding Regarding Article I ENMOD, ‘widespread’ means an area of about several hundred square kilometres, ‘long lasting’ is a period of months, approximately a season, while ‘severe’ refers to a serious or significant disruption or harm to human life, natural and economic resources, or other assets. In contrast, Karen Hulme suggested that ‘widespread’ could mean several tens of thousands of kilometres,¹⁸⁵ ‘long-term’ could be decades with a minimum of about twenty to thirty years¹⁸⁶ while ‘severe’ could be any significant disruption to human life and properties.¹⁸⁷ The significant differences between the Understanding to ENMOD and Hulme’s proposal reinforce the nebulous meaning of these terms. Even if the definition of the Understanding to ENMOD were adopted, the word ‘severe’ imposes a very high threshold on which, by the way, both interpretations converge.

¹⁸¹ ICTY, *Prosecutor v. Kunarac, Kovac and Vuković*, judgment 22 February 2001, case nos IT-96-23-T and IT-96-23/1-T, para. 428. See also ICTY, *Prosecutor v. Krnojelac*, judgment of 15 March 2002, case no. IT-97-25-T, para. 57.

¹⁸² ICTY, *Prosecutor v. Blaškić*, judgment of 3 March 2000, case no. IT-95-14-T, para. 206.

¹⁸³ ICTY, *Prosecutor v. Kordić and Cerkez*, judgment of 26 February 2001, case no. IT-95-14/2-T, para. 179.

¹⁸⁴ Report of the Conference of the Committee on Disarmament, Volume I, General Assembly Official records: Thirty-first session, Supplement No. 27 (A/31/27), New York, United Nations, 1976, 91-92.

¹⁸⁵ Karen Hulme, *War Torn Environment: Interpreting the Legal Threshold* (Martinus Nijhoff Publishers 2004), 92.

¹⁸⁶ Hulme (n. 185), 94.

¹⁸⁷ Hulme (n. 185), 96.

Fourthly, the harm must be in excess of the anticipated concrete and direct overall military advantage. This requirement is very similar to military necessity as a defence. Since military necessity has always been a defence, adding this clause to the definition of the crime tends to make prosecution even more difficult.¹⁸⁸ Meanwhile, when Article 8(2)(b)(iv) of the Rome Statute was negotiated, nuclear weapons were kept off the agenda by some powerful States.¹⁸⁹ The necessary implication is that Article 8(2)(b)(iv) of the Rome Statute does not apply to nuclear weapons and it appears that only nuclear weapons could cause such 'widespread', 'long-term', and 'severe' damage envisaged.¹⁹⁰ It is noteworthy that the prosecution of ecocide as a war crime may however indirectly hinge on other provisions¹⁹¹ just as the first prosecution during World War II. But, as far as prosecution based on Article 8(2)(b)(iv) of the Rome Statute – the only direct provision on environmental war crime – is concerned, the picture is a dismal one. This situation is most unfortunate since this provision alone protects the environment directly. Nonetheless, as far as war crimes are concerned, humans still constitute the focus – a situation identical to genocide and crimes against humanity. Similarly, prosecuting ecocide as a war crime would always require that some environmental harm would have occurred.

4. Criminalising Ecocide as Aggression

The possibility of criminalising ecocide as aggression can be considered from two perspectives: customary international law and the definition in Article 8bis Rome Statute. The Nuremberg trials formed the basis for the customary law crime of aggression.¹⁹² The Nuremberg Charter defined crime against peace as 'planning, preparation, initiation or waging of a war of aggression, or a war in violation of international treaties, agreements or

¹⁸⁸ Smith (n. 138), 45–62.

¹⁸⁹ Karen Hulme, 'Armed Conflict, Wanton Ecological Devastation and Scorched Earth Policies: How the 1990–91 Gulf Conflict Revealed the Inadequacies of the Current Laws to Ensure Effective Protection and Preservation of the Natural Environment', *Journal of Armed Conflict Law* 2 (1997), 45–81 (61). However, at the Diplomatic Conference, 'the three major nuclear powers present [...] specifically kept applicability to nuclear weaponry off the agenda.' Therefore 'the prevailing view thus appears to be that Protocol I applies only to conventional warfare, placing the prohibition of ecological warfare incomprehensively higher than what modern weapons could possibly achieve, and thus having no limiting or protective effect'.

¹⁹⁰ Hulme (n. 189).

¹⁹¹ Smith (n. 138), 45–62.

¹⁹² See Malcolm N. Shaw, *International Law* (9th edn, Cambridge University Press 2021), 329–376.

assurances, or participation in a common plan or conspiracy for the accomplishment of any of the foregoing'.¹⁹³ In this definition, the element of aggression was not defined. However, if one considers the convictions secured in respect of the crime, it can be argued that the crime involved the massive use of force in manifest and flagrant violation of international law together with *animus aggressionis* resulting in military occupation.

The threshold for prosecution is no doubt very high. Hence, it is no surprise that no one has been held criminally liable since the Nuremberg trial. The invasion of Kuwait by Iraq no doubt qualified as aggression but there was no prosecution. The invasion of Iraq by the 'Coalition of the Willing'¹⁹⁴ may not qualify as aggression since these States (and their officials) at least tenuously relied on a Resolution of the United Nations Security Council¹⁹⁵ and did not aim for a military occupation. The example of the invasion of Iraq by the 'Coalition of the Willing' shows that it may be difficult to determine the *animus aggressionis* in certain instances. Since the threshold is very high, criminalising ecocide as aggression will be most difficult. Where the threshold is not met, but there is war nonetheless, the situation may dovetail into a war crime and the previous analysis in respect of war crimes applies.

Article 8bis Rome Statute¹⁹⁶ criminalises acts of aggression 'which, by its character, gravity and scale, constitutes a manifest violation of the Charter of the United Nations'.¹⁹⁷ Acts of aggression include armed attack,¹⁹⁸ invasion,¹⁹⁹ or bombardment.²⁰⁰ While aggression under customary international law seems to require military occupation as a necessary consequence of aggression, Article 8bis covers any use of armed force against the political independence of another State.²⁰¹ Thus, change of government as intended by the 'Coalition of the Willing' may amount to aggression under the Rome Statute even though occupation was not intended and did not result. In the

¹⁹³ See Nuremberg Charter, Art. 6(a). See also Tokyo Charter, Art. 5(a) and Control Council Law No. 10, Art. I (1)(a) which are similarly worded in criminalising aggression.

¹⁹⁴ BBC News, 'US Names "Coalition of the Willing"' <<http://news.bbc.co.uk/2/hi/americas/2862343.stm>>, last access 2 March 2024.

¹⁹⁵ UNSC Res 1441 of 8 November 2002, S/RES/1441 (2002).

¹⁹⁶ Article 8 bis defines aggression as:

'the planning, preparation, initiation or execution, by a person in a position effectively to exercise control over or to direct the political or military action of a State, of an act of aggression which, by its character, gravity and scale, constitutes a manifest violation of the Charter of the United Nations.'

¹⁹⁷ Art. 8(1) bis.

¹⁹⁸ Art. 8(2) bis.

¹⁹⁹ Art. 8(2)(a) bis.

²⁰⁰ Art. 8(2)(b) bis.

²⁰¹ Art. 8(2) bis.

same vein, the Russian invasion of Ukraine may also qualify as aggression as it tends to constitute the use of force against the political independence of another State which in this instance is Ukraine. Article 8bis therefore appears broader than the crime under customary international law. In fact, the whole tenor of Article 8bis suggests that it is broader than customary international law. Nonetheless, the requirement of 'gravity and scale' together with 'a manifest violation' set a very high threshold.

While Article 8bis of the Rome Statute was negotiated, environmentalists had hoped that any deliberate transboundary pollution would be included. However, it was not included to their disappointment.²⁰² Therefore, attack, invasion, or bombardment envisaged in Article 8bis may not cover instances falling short of attack or invasion involving the use of nuclear weapons or biological or chemical weapons, as Smith argues.²⁰³ This implies that the destruction of Ukraine's largest dam, Kakhovka previously mentioned would not be prosecutable within the ambit of Article 8bis as long as the destruction did not involve the use of nuclear weapons. Besides, there is another issue with treating ecocide as part of the crime of aggression. Just as humans constitute the focus in genocide, crimes against humanity, and war crimes, humans are also at the heart of the crime of aggression. Similarly, the requirements of attack, invasion, or bombardment show that some environmental harm must have resulted.

5. Criminalising Ecocide as a Distinct Crime

The massive destruction of the ecosystem can also be punished as a novel and distinct crime without necessarily attaching it to genocide, crimes against humanity, war crimes, or aggression. The idea of criminalising the destruction of the environment is not really a novel one²⁰⁴ and making it a distinct international crime is only probably different in degree and not in essence. Criminal law concepts like intention, wilful act, criminal negligence, foreseeability, and recklessness²⁰⁵ can indeed be applied to the destruction of the ecosystem. At present, oil pollution spreading across national borders is the major means of destroying the ecosystem. All the criminal law concepts

²⁰² Smith (n. 138), 45-62.

²⁰³ Smith (n. 138), 45-62.

²⁰⁴ See Convention on the Protection of the Environment through Criminal Law, Council of Europe, ETS No. 172, 1998.

²⁰⁵ Glanville L. Williams, *Criminal Law: The General Part*, (2nd edn, Stevens & Sons 1961); American Model Penal Code (Official Draft) 1962; Australian Criminal Code Act 1995, section 5.2-5.5.

earlier mentioned can indeed be successfully applied to this situation. Criminal negligence can be successfully applied to the spread of oil pollution across national borders while the concept of foreseeability and recklessness can be applied to the American herbicidal invasion of Vietnam. It is however noteworthy that all the problems associated with criminalising ecocide as genocide, war crimes, and aggression would have to be avoided if ecocide is to be successfully prosecuted as a distinct crime. Thus, the high thresholds which make prosecution almost impossible would have to be avoided.

In 2021, a group of legal experts defined ecocide 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 caused by those acts’.²⁰⁶

The experts stated that this definition was novel in adopting a non-anthropocentric approach in putting the environment at the centre of international law. This is in stark contrast to the four international crimes under the Rome Statute which (almost) exclusively focus on the well-being of humans.²⁰⁷ Some aspects of the definition are taken from Article 8(2)(b)(iv) of the Rome Statute with respect to the destruction of the natural environment. These include the use of such terms as ‘severe’, ‘widespread’, and ‘long-term’ to describe the prohibited damage, a proportionality test requiring the anticipated harm to be in excess of the expected military advantage and endangerment liability, rather than requiring actual harm to have materialised.²⁰⁸

The term ‘wanton’ is defined to mean ‘reckless disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated’. The term is a familiar one in international criminal law and it appears alongside the term ‘unlawful’ under Article 8(2)(a)(iv) Rome Statute which prohibits ‘extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly’. The definition of the term ‘wanton’ recognises ‘negligence’ or ‘recklessness’. The phrase ‘disregard for damage which would be clearly excessive in relation to the social and economic benefits anticipated’ appears to address ecocide in peacetime. Genocide, crimes against humanity, war crimes, and aggression tend to involve some element of hostility, brutality, or violence. However, with the above phrase, ecocide can be committed without violence or hostility.

²⁰⁶ Stop Ecocide Foundation, Independent Expert Panel for the Legal Definition of Ecocide: Commentary and Core Text, June 2021, II.

²⁰⁷ Haroon Siddique, ‘Legal Experts Worldwide Draw Up “Historic” Definition of Ecocide’, The Guardian (UK).

²⁰⁸ Stop Ecocide Foundation (n. 206), III(C).

The use of the phrase 'unlawful or wanton acts' implies that a lawful, but wanton act can give rise to ecocide in addition to the liability attached to unlawful acts. Determining what is 'wanton' but legal or lawful requires us to adapt some element of proportionality test as it is known from the context of armed attacks (i. e. balancing the expected military advantage with the likely consequences). Yet, nothing precludes us from aligning this assessment with proportionality tests developed under human rights law. Thus, the act may have to be assessed in light of the end sought to be achieved.²⁰⁹ As far as the proposed crime of ecocide is concerned, the social and economic benefits have to be balanced with its environmental impact, which reflects ideas of sustainable development. Where the means adopted is considered not to be proportionate, a finding of recklessness or negligence as an element of *mens rea* may be the outcome. The term 'unlawful' refers to what is prohibited under international law and domestic law. Therefore, if an act or omission is lawful under domestic law but unlawful under international law, international law will apply. This is because domestic law cannot be offered as an excuse to violate international law.²¹⁰ But where domestic law has prohibited an act or omission, there is no basis not to rely on the domestic prohibition even if the act or omission is not prohibited under international law.²¹¹

With respect to *actus reus*, the proposed crime of ecocide punishes any commission or omission in the knowledge that this will cause a substantial likelihood of severe and either widespread or long-term damage to the environment. The harm does not necessarily have to materialise. It is sufficient that there is a danger of such harm occurring.²¹² This approach to criminality is not strange to international criminal law. As previously noted, Articles 35(3) and 55(1) API outlaw 'methods or means of warfare which are intended, or may be expected to cause, widespread, long-term and severe damage to the natural environment'. It is immaterial that the damage does not actually occur. Under Article 6 Rome Statute where genocide is criminalised, it is sufficient once an act is carried out to destroy a group in whole or in part. It does not matter that the group is not actually destroyed in whole or in part. Similarly, the same idea informs Article 8(2)(b)(iv) Rome Statute which criminalises the war crime of intentionally launching an attack in the

²⁰⁹ See Grant Huscroft, Bradley W. Miller and Grégoire Webber (eds), *Proportionality and the Rule of Law: Rights, Justification, Reasoning* (Cambridge University Press 2014), 2; Stavros Tsakyrakis, 'Proportionality: An Assault on Human Rights?', I CON 7 (2009), 468-493. See also Alec Stone Sweet and Jud Mathews, *Proportionality, Balancing and Constitutional Governance: A Comparative and Global Approach* (Oxford University Press 2019).

²¹⁰ Stop Ecocide Foundation (n. 206), III(C).

²¹¹ Stop Ecocide Foundation (n. 206), III(C)(2)(b).

²¹² Stop Ecocide Foundation (n. 206), III(C)(4).

knowledge that such attack will cause widespread, long-term, and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated.²¹³

The term: ‘severe’ is defined to mean ‘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’. This definition is adapted from ENMOD whose Committee on Disarmament has interpreted the term ‘severe’ to mean ‘serious or significant disruption or harm to human life, natural and economic resources or other assets’. The difference is that the adjective ‘cultural’ replaces the phrase ‘other assets’ to emphasise the cultural value of the environment, especially to indigenous peoples.²¹⁴

The term ‘widespread’ is defined as ‘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’. As previously noted, the ENMOD Committee on Disarmament has interpreted the term ‘widespread’ to mean several hundred kilometres while API has interpreted it to mean thousands of square kilometres. While these interpretations make the meaning of the word nebulous as previously contended, they also create an extremely high threshold. Hence, the definition uses the phrase ‘beyond a limited geographical area’.²¹⁵ In addition, the phrase ‘crosses state boundaries’ would address oil pollution that spreads across national borders, which is one of the means by which ecocide is committed in modern times. Lastly, the phrase ‘a large number of human beings’ is taken from the International Criminal Court’s (ICC’s) interpretation of the term ‘widespread’ in crimes against humanity. While this interpretation is anthropocentric, it is used in this instance to include human beings as a component of the environment.²¹⁶

The term ‘long-term’ is defined to mean ‘damage which is irreversible or which cannot be redressed through natural recovery within a reasonable period of time’. The ENMOD Committee on Disarmament has interpreted the closely related term ‘long-lasting’ to mean a period of several months or a season while background materials to API define ‘long-term’ as a period of decades. While one appears to be too short, the other appears to be too long. To avoid these shortcomings, the new definition introduces the requirements of irreversibility of the damage and as an alternative of a reasonable period of time. A reasonable period of time depends on the circumstances of each case

²¹³ See also Article 8(2)(b)(i)-(iii) Rome Statute.

²¹⁴ Stop Ecocide Foundation (n. 207) III(C)(2)(a)(i).

²¹⁵ Stop Ecocide Foundation (n. 206), III(C)(2)(a)(ii).

²¹⁶ Stop Ecocide Foundation (n. 206), III(C)(2)(a)(iii).

and it does not necessarily need to have elapsed before prosecution can begin.²¹⁷

The criterion of 'severe' damage has to be met cumulatively with either of these two requirements for the harm: 'widespread' or 'long-term'. The terms 'severe', 'widespread', or 'long-term' appear in two articles of API, in Article 8(2)(b)(iv) Rome Statute, in ENMOD, and in the 1991 International Law Commission draft of an international crime of wilful and severe damage to the environment. While ENMOD uses the terms disjunctively ('widespread, long-lasting or severe'), API and the Rome Statute use the term conjunctively ('widespread, long-term and severe'). While the disjunctive ENMOD test appears to be too low, that of API and the Rome Statute appears to be too high. The test adopted here appears to maintain a middle course.²¹⁸

The term 'environment' is defined as 'the earth, its biosphere, cryosphere, lithosphere, hydrosphere and atmosphere, as well as outer space'. Since the term 'widespread' includes damage suffered by an entire ecosystem or species or a large number of human beings, it follows that ecocide can be committed even where no human lives are lost. This is reinforced by the meaning of the term 'environment' which includes the earth, its biosphere, cryosphere, lithosphere, hydrosphere, and atmosphere, as well as outer space. While prosecuting ecocide as war crime, crime against humanity, and aggression tends to place humans at the centre of protection, this is not the case here. Humans are only a part of the environment thus attesting to the novelty of the approach adopted in this definition.

VI. Conclusion

This article examined the criminalisation of ecocide as an international crime. It considered the argument that criminalising ecocide would stifle economic development and that the destruction of the environment is not amenable to the scrutiny of criminal justice system because environmental harms do not always materialise and that when they do it is not always easy to link them with particular acts or omissions. The article found that ecocide was indeed one of the legacies of Nuremberg. However, it was suppressed by powerful State interests. Nonetheless, a lot of groundwork had already been laid which makes the criminalisation of ecocide feasible. Therefore, ecocide could be prosecuted as genocide, crime against humanity, war crime, aggression, or as a distinct crime. The latter is, however, not yet part of international

²¹⁷ Stop Ecocide Foundation (n. 206), III(C)(2)(a)(iii).

²¹⁸ Stop Ecocide Foundation (n. 206), III(C)(2)(a).

law and would have to become of treaty. In prosecuting ecocide as genocide, crime against humanity, war crime, or aggression, humans are the focus while some element of hostility, brutality, or violence would have occurred and thus manifested as harms. However, in prosecuting ecocide as a distinct crime, violence does not necessarily need to have occurred while the environment is the focus with humans being a component of it. In addition, the principle of proportionality enshrined in its definition balances the protection of the environment with economic development while the principle of endangerment equally enshrined in its definition addresses the problem associated with environmental harm. Thus, the harm does not necessarily need to have materialised, it is sufficient once the act or omission has sufficiently endangered the environment. Thereby, the proposed definition of a distinct crime of ecocide addresses the main arguments brought against such offence. Based on the legacy of Nuremberg, there is thus a sound basis for States to establish the crime of ecocide under international law, e. g. by amending the Rome Statute.