

Environmental Sustainability as a Protected
Collective Interest in International
and EU Law

Collected essays

Edited by

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THE RELEVANCE OF ENVIRONMENTAL SUSTAINABILITY IN INTERNATIONAL DISASTER LAW

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SUMMARY: 1. Introduction. – 2. Defining Environmental Sustainability through Its Evolution. – 3. The Legal Nature of Sustainable Development and Environmental Sustainability. – 4. The Relevance of Disasters in the Discourse on Sustainable Development. – 5. The Relevance of Environmental Sustainability in International Disaster Law: Disaster Risk Reduction. – 6. The Relevance of Environmental Sustainability in International Disaster Law: Climate Change Adaptation. – 7. Conclusions.

1. *Introduction*

The Chapter explores the relevance and implications of environmental sustainability in International Disaster Law (IDL). First, the meaning of environmental sustainability will be elucidated. The study examines the notion of environmental sustainability highlighting how it has evolved within the broader discourse on sustainable development. Attempts will be made to analyse environmental sustainability in relation with interrelated concepts such as environmental protection and climate change, with the view of identifying whether they overlap or rather point at diverse notions. Then, the legal nature of environmental sustainability will be discussed in light of the evolution underwent in relevant international jurisprudence. Once the notion of environmental sustainability will be clarified, the analysis will move on to investigate whether this concept is relevant for international disaster law (IDL) and vice versa. The study will undertake a two-tiers approach. On the one hand, the article will explore what will be called the “sustainable development tier”, examining whether the field of sustainable development has duly con-

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sidered the relevance of disasters. This part of the analysis will focus on the study of relevant documents such as the Brundtland Report, the 1992 Rio Declaration on Environment and Development and the Agenda 21, the Agenda 2030, and its Sustainable Development Goals as well as the 2022 United Nations General Assembly resolution that recognized the right to a clean, healthy and sustainable environment as a human right. On the other hand, the “disaster law tier” of the analysis will inquire whether environmental sustainability has been incorporated in IDL by examining relevant IDL legal frameworks, including the Hyogo Framework, the Sendai Framework the International Law Commission Draft Articles on the Protection of Persons in the Event of Disasters and the International Federation of Red Cross and Red Crescent Societies Guidelines on Disaster Risk Governance. Also, some elements of recent IDL practice will be considered, namely the Early Warning for All Initiative and disaster risk reduction actions known as “nature-based solutions”. This “disaster law tier” will revolve around the analysis of two key concepts such as disaster risk reduction, the integration of climate change adaptation in disaster risk management (DRR). Conclusions ensue.

2. *Defining Environmental Sustainability through Its Evolution*

Environmental sustainability can be defined as one of the three dimensions of sustainable development, that also includes economic and social sustainability.¹ It has been argued that the meaning and scope of sustainable development is in constant evolution, depending on the development of the society.² For this

¹ Transforming Our World: The 2030 Agenda for Sustainable Development, UN Doc. A/RES/70/1, 21 October 2015, p. 1: “The 17 Sustainable Development Goals and 169 targets [...] are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental.”

² J.E. VINUALES, “The Rise and Fall of Sustainable Development”, in *Review of European, Comparative and International Environmental Law*, XXII (2013), pp. 3-13; see also U. BEYERLIN, “Sustainable Development”, in *Max*

reason, the present analysis aims at defining the concept under consideration by elucidating the main traits of its evolution.

The concept of sustainability first emerged in the context of international legal discourse through the prism of sustainable development. Its most authoritative formulation appeared in the 1987 Report of the World Commission on Environment and Development “Our Common Future”, commonly known as the Brundtland Report. The Report defined sustainable development as the development that “meets the needs of the present without compromising the ability of future generations to meet their own needs”.³ This definition has since been repeatedly reaffirmed in international declarations, resolutions, and judicial reasoning. The Brundtland Report did not elaborate specifically on the concept of environmental sustainability, rather the notion was mentioned only few times in the lengthy document at hand. For example, when dealing with the exploitation of natural resource in Latin America, the Report mentioned the fact that “the approach to the debt problem raises questions of economic political, and environmental sustainability.”⁴ Moreover, various concepts were associated in the Report with the issue of sustainable development and the environment, such as “the sustainability of ecosystems”,⁵ “the sustainability of forest exploitation” and “overall environmental and ecosystem conservation”.⁶

Later in 1992, the Rio Declaration on Environment and Development, and its programmatic expression the Agenda 21, furthered the use of various notions associated with the protection of the environment for the purpose of achieving sustainable development. For example, Principle 4 of the Rio Declaration af-

Planck Encyclopedia of Public International Law (Oxford, OUP October 2013), N. SCHRIJVER, “The Evolution of Sustainable Development in International Law: Inception, Meaning and Status”, in *Recueil des Cours de l’Académie de droit international de la Haye*, CCCXXIX (2007), pp. 217-412.

³ Report of the World Commission on Environment and Development: Our Common Future, UN Doc. A/42/427, 4 August 1987 (Brundtland Report), p. 54.

⁴ *Ivi*, p. 83.

⁵ *Ivi*, p. 76.

⁶ *Ivi*, p. 138.

firmed that “[i]n order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.”⁷ Principle 7, which enunciated the key principles of cooperation and common but differentiated responsibilities affirmed that “States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities.” The Agenda 21, that operationalized the concept of sustainable development and the principles elaborated in the Rio Declaration, focused on the notion of “environmentally sound management” of various resources, as for example, land, sea, mountains, forests and fresh waters.⁸

Sustainable development is commonly understood as encompassing two interdependent and foundational dimensions of equity, namely intergenerational and intragenerational equity. Intergenerational equity, corresponding to the “sustainable” component of the notion, lies at the heart of the definition articulated in the Brundtland Report. It requires that, in pursuing development, States preserve the environmental capital held in trust for future generations and ensure its transmission in conditions comparable to those in which it was received. Intragenerational equity, by contrast, gives substantive content to the “development” dimension of sustainable development and requires a fair distribution of the benefits and burdens of economic and social progress within the present generation, both domestically, within individual societies, and internationally, between developed and developing States. “Intergenerational equity is an expression of the idea that present generations are trustees of humanity tasked with preserving dignified living conditions and transmitting them to future generations.”⁹

⁷ Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26/Rev.1., (Vol. 1), Annex I, 3-14 June 1992 (Rio Declaration).

⁸ Agenda 21, UN Doc. A/CONF.151/26/Rev.1 (Vol. 1), Annex II, 3-14 June 1992.

⁹ *Ivi*, para. 156.

In other words, until the 1990s, the idea of sustainable development *vis à vis* the environment was mainly associated with the exploitation of the Planet's resources for the benefit of human wellbeing. This exploitation (*rectius* "management") of natural resources had to be sustainable with the view of preserving the environment to be utilized also by future generations. In sum, environmental sustainability hardly emerged as an autonomous notion and was associated with other concepts such as environmental degradation, ecosystem preservation, and more broadly with environmental protection.

Despite its somewhat "predatorial" conception, the principle of sustainable development has had a great impact in the development of multilateral treaties on environmental protection and climate change.¹⁰ The 1992 Convention on Biological Diversity makes various references to the sustainability and sustainable development, for example Article 1 included "the sustainable use of the components of biological diversity" among the Convention's objective.¹¹ Also, the United Nations Convention to Combat Desertification adopted in 1994, setting forth the general obligations of State parties under Article 4, affirms that due attention shall be given to "establishing an enabling international economic environment conducive to the promotion of sustainable development."¹²

As to climate change treaties, the United Nations Framework Convention on Climate Change (UNFCCC), adopted in 1992, frames sustainable development as a guiding principle for State action, providing in Article 3(4) that Parties have a right to, and should, promote sustainable development, and that policies and measures to protect the climate system should be appropriate to the specific conditions of each Party and integrated with national

¹⁰ On the critique of sustainable development and anthropocentrism see L.J. KOTZÉ, S. ADELMAN, "Environmental Law and the Unsustainability of Sustainable Development: A Tale of Disenchantment and of Hope", in *Law and Critique*, XXXIV (2023), pp. 227-248.

¹¹ United Nations Framework Convention on Climate Change, New York, 9 May 1992, UNTS vol. 1771, p. 107.

¹² Kyoto Protocol to the United Nations Framework Convention on Climate Change, Kyoto, 11 December 1997, UNTS vol. 2303, p. 162.

development programs. This approach was reaffirmed and operationalized in the Kyoto Protocol of 1997, whose Article 2(1), requires Annex I Parties to implement their emission limitation and reduction commitments in a manner that promotes sustainable development. The Paris Agreement of 2015 further consolidates this trajectory by explicitly situating sustainable development at the core of the climate regime: Article 2(1) identifies sustainable development and efforts to eradicate poverty as guiding considerations for the implementation of the treaty, while Article 4 links long-term temperature goals with nationally determined contributions formulated in the context of sustainable development.¹³

In 2015, with the adoption of the Agenda 2030 and the related 17 sustainable development goals (SDGs), the principle of sustainable development was mainstreamed in the public debate. On that occasion, the concept was structured in its three-fold dimensions, giving relevance to environmental sustainability. However, when examining the SDGs it shall be noted how environmental sustainability is considered a cross-cutting issue that merges with other notions linked to sustainable development, in general, and with environmental protection, in particular. Issues of environmental sustainability are not treated as an unicum, under a common goal but rather are scattered across multiple goals and targets, as for example SDG 6 on clean water and sanitation, SDG 7 on affordable and clean energy, SDG 8 on decent work and economic growth (target 8.4 on the preservation from environmental degradation), SDG 11 on sustainable cities and communities (target 11.6 on the reduction of the adverse per capita environmental impact of cities), SDG 12 on responsible consumption and production (target 12.2 on the achievement of the sustainable management and efficient use of natural resources), SDG 13 on climate action, SDG 14 on life below water and SDG 15 on life on land to “protect, restore and promote sustainable use of terrestrial ecosystems, sustainability manage forests, com-

¹³ Paris Agreement, Paris, 12 December 2015, UNTS Paris Agreement, vol. 3156, p. 79.

bat desertification, and halt and reverse land degradation and halt biodiversity loss”.¹⁴

One of the latest developments in the evolution of environmental sustainability is linked to the growing articulation of environmental protection as a human right. This “human rights turn” emerged from broader debates on the linkages between human rights and the environment, and consisted in a series of actions at the UN level as, for example, the appointment in 2015 of a Special Rapporteur on the human right to a healthy environment.¹⁵ Also, in October 2021, the United Nations Human Rights Council adopted Resolution 48/13, formally recognizing the right to a clean, healthy, and sustainable environment as a human right and inviting States to implement it through policies and cooperation; the Resolution also affirmed that its promotion requires full implementation of multilateral environmental agreements under international environmental law principles. Building on this, in July 2022, the UN General Assembly (GA) adopted Resolution A/76/L.75, recognizing the human right to a clean, healthy, and sustainable environment and calling on States and other stakeholders to strengthen cooperation and policy measures to ensure this right.¹⁶

These normative developments have begun to influence judicial processes, giving rise to the field of strategic litigation in environmental and climate change matters. For example, in *Verein KlimaSeniorinnen Schweiz v. Switzerland* the European Court of Human Rights held that Switzerland violated human rights by failing to take adequate climate measures, marking an important instance of rights-based climate litigation, and advisory opinions

¹⁴ R. PAVONI, D. PISELLI, “The Sustainable Development Goals and International Environmental Law: Normative Value and Challenges for Implementation”, in *Veredas Do Direito: Direito Ambiental E Desenvolvimento Sustentável*, XIII (2016), pp. 13-48; R. B. SWAIN, Y. MIN (eds), *Interlinkages between the Sustainable Development Goals* (Cheltenham, Edward Elgar 2023).

¹⁵ Human Rights and the Environment, UN Doc. A/HRC/RES/28/11, 7 April 2015; B. PETERS, “Clean and Healthy Environment, Right to, International Protection”, in *Max Planck Encyclopedia of Public International Law* (Oxford, OUP January 2021).

¹⁶ UN Doc. A/HRC/RES/48/13, 8 October 2021.

by the Inter-American Court of Human Rights have articulated a human right to a stable climate with accompanying State obligations.¹⁷

3. *The Legal Nature of Sustainable Development and Environmental Sustainability*

Once the content and the evolution of the notion of environmental sustainability have been elucidated, some considerations as to the legal nature of the concept under consideration are warranted. It has been demonstrated that environmental sustainability is intrinsically linked to the notion of sustainable development, being one of the three dimensions thereof. The following analysis will centre on the legal nature of sustainable development.

It has been argued that sustainable development “does not fit within traditional categories of normativity”, while it should be considered a powerful hermeneutical tool.¹⁸ The contribution of the case law of the International Court of Justice (ICJ) and of arbitration tribunals has played a critical role in elucidating the legal nature of the notion under consideration. It will be shown how sustainable development has been considered in turn an ob-

¹⁷ European Court of Human Rights (Grand Chamber), *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*, Application no. 53600/20, Judgment of 9 April 2024; Inter-American Court of Human Rights, Advisory Opinion OC-23/17, Environment and Human Rights (*State Obligations in relation to the Environment in the Context of the Protection and Guarantee of the Rights to Life and to Personal Integrity*), 15 November 2017. A.V. RYDBERG, “Climate Change Litigation: General Perspectives and Emerging Trends”, in *International Community Law Review*, XXVI (2024), pp. 347-366; M. ADIGUN, “Climate Change Litigation before International Human Rights Tribunals in Africa the Role of Advisory Opinions”, in *International Community Law Review*, XXVII (2025), pp. 136-161.

¹⁸ V. BARRAL, “Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm”, in *European Journal of International Law*, XXIII (2012), pp. 377-400, 378; R.E. KIM, “The Nexus between International Law and the Sustainable Development Goals”, in *Review of European, Comparative and International Environmental Law*, XXV (2016), pp. 15-26.

jective to achieve, a general principle of international law and a principle that guides the interpretation of other international rules.

In the *Gabcikovo-Nagymaros Project* case, the ICJ acknowledged the necessity of reconciling economic development with environmental protection, framing this requirement within the concept of sustainable development, while refraining from elucidating its precise legal status.¹⁹ Subsequently, in the *Pulp Mills* case, the ICJ reaffirmed its recognition of sustainable development and characterized it as an “objective” of the international community, emphasizing the intrinsic interconnectedness between the equitable and reasonable utilization of shared resources and the need to strike a balance between economic development and environmental protection, which it identified as the core of sustainable development.²⁰ Moreover, in the *Arbitration regarding the Iron Rhine Railway* between Belgium and the Netherlands, the Tribunal affirmed that when development activities may cause significant environmental harm, there exists a duty to prevent, or at least mitigate, such harm, a duty which it held “has now become a principle of general international law.”²¹ Finally, the ICJ, with the recent *Climate Change* Advisory Opinion categorized sustainable development as a principle, functional to the interpretation of some environmental protection and climate change norms both of treaty and customary nature. In the words of the Court, “[g]iven its continuous and uncontested universal recognition, [...] the principle of sustainable development guides the interpretation of certain treaties and the determination of rules of customary international law, including the duty to prevent significant harm to the environment and the duty to co-operate for the protection of the environment.”²² There is an aspect

¹⁹ ICJ, *Gabcikovo-Nagymaros Project (Hungary v Slovakia)*, 25 September 1997, ICJ Rep. 1997, 7, para. 140.

²⁰ ICJ, *Case concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)*, 20 April 2010, ICJ Rep. 2010, 14.

²¹ *Arbitration regarding the Iron Rhine ('Ijzeren Rijn') Railway between the Kingdom of Belgium and the Kingdom of the Netherlands*, Award 27 RIAA 35, 24 May 2005, paras. 35 and 59.

²² ICJ, *Obligations of States in Respect of Climate Change (Advisory Opin-*

that remains unclear, namely the interplay between the principle sustainable development and the emergence of the human right to a clean, healthy and sustainable environment. In the *Climate Change* Advisory Opinion, the ICJ stated that “the effective enjoyment of a number of human rights cannot be fully realized if those who hold them are unable to live in a clean, healthy and sustainable environment.”²³ However, as noted by several commentators, the Court has not recognized the right to a clean, healthy and sustainable environment as a human right.²⁴ Moreover, it shall be observed that the issue of the interplay between environmental sustainability and a human right to a sustainable environment remains unexplored both in the reasoning of the ICJ’s Advisory Opinion and in the legal scholarship.

This brings us to consider what are the obligations generally associated with sustainable development. The International Law Association (ILA) 2002 Declaration of Principles of International Law Relating to Sustainable Development affirmed that States have a duty to ensure sustainable use of natural resources. Moreover, the principle of common but differentiated responsibilities was affirmed. Accordingly, States and relevant actors share a common duty to cooperate in achieving global sustainable development and environmental protection, but differentiation is warranted according to each State’s contribution to environmental

ion), General List No 187, 23 July 2025 (*Climate Change* Advisory Opinion), para. 147. M. WEWERINKE-SINGH, “Harmonizing Sources, Hardening Duties Inside the ICJ’s Advisory Opinion on Climate Change”, in M.A. Tigre *et al.* (eds), *The ICJ’s Advisory Opinion On Climate Change* (Berlin, Verfassungsbücher 2025), pp. 45-59; C.E. FOSTER, “The 2025 International Court of Justice Advisory Opinion on Obligations of States in Respect of Climate Change”, in *International and Comparative Law Quarterly*, LXXIV (2025), pp. 1-35.

²³ *Climate Change* Advisory Opinion, cit., para. 389.

²⁴ C.E. FOSTER, “The 2025 International Court of Justice Advisory Opinion on Obligations of States in Respect of Climate Change”, cit., pp. 14-15. See also H. KELLER, “A Right to a Clean, Healthy and Sustainable Environment: Or Perhaps Not (Yet)?”, in *Volkerrechtsblog*, 5 August 2025, available at www.volkerrechtsblog.de; R. PERERA, “The ICJ’s Recognition of an Autonomous Right to a Clean and Healthy Environment”, in *EJIL:Talk!*, 19 August 2025, available at www.ejiltalk.org; C. HERI, “Human Rights in the ICJ’s Climate Opinion”, in *Verfassungsbücher*, 1 August 2025, available at www.volkerrechtsblog.de.

problems, economic and developmental circumstances. Also, under the precautionary principle, States exercise sovereign rights to manage their natural resources but are concurrently responsible for ensuring that activities within their jurisdiction do not cause significant damage to the environment of other States or areas beyond national jurisdiction. This normative framework rests on a broader duty of cooperation, by which States must work jointly, in good faith, to eradicate poverty and advance equity in development opportunities, reflecting the collective pursuit of sustainable development.²⁵

Against this backdrop, some conclusions can be drawn as to the content and legal nature of the concept of under consideration. Environmental sustainability can be defined as a component of the legal principle of sustainable development according to which the management and consumption of natural resources shall not preclude their exploitation and enjoyment by future generations. It represents one of the three dimensions of sustainable development, along with the social and economic aspects thereof. As a legal principle, it has played and keeps playing a crucial role both in generating and interpreting legal norms of treaty and customary nature in the field of international environmental protection and climate change law, as for example the duty of States to prevent and mitigate environmental harm, and the duty to cooperate for the protection of the environment. Taking into consideration the evolving nature of sustainable development, and thus of environmental sustainability, an hypothesis *de iure condendo* can be made that environmental sustainability may become in the future the object of a human right, namely a component of the right to a clean, healthy and sustainable environment. The principle of environmental sustainability therefore has a sectoral and functional character in international law. It focuses on environmental limits, ecosystem integrity, and long-term ecological resilience, while it supports broader sustainable

²⁵ International Law Association, New Delhi Declaration of Principles of International Law Relating to Sustainable Development, Resolution 3/2002, 2-6 April 2002.

development goals, it can also constrain human activities when they threaten environmental systems.

4. *The Relevance of Disasters in the Discourse on Sustainable Development*

The study will now consider, under the “sustainable development tier”, whether the field of sustainable development has duly considered the relevance of disasters. This part will focus on the analysis of relevant documents such as the Brundtland Report, the 1992 Rio Declaration on Environment and Development, the Agenda 21, the Agenda 2023 and its Sustainable Development Goals.

The Brundtland Report noted the significant increase of “natural disasters”, in particular floods and droughts, that occurred between the 1960s and the 1970s in Africa, India and Latin America, and identified the causes of these phenomena in the widespread deforestation and overcultivation.²⁶ The Report acknowledged the relationship between sustainable development and disasters, so much so that it resorted to the term “developmental disaster”.²⁷ In this context, the document stressed the relevance of disaster prevention in the following terms:

[a]ll major disaster problems in the Third World are essentially unsolved development problems. Disaster prevention is thus primarily an aspect of development and this must be a development that takes place within the sustainable limits.²⁸

The linkages between sustainable development and disaster prevention and preparedness were also stressed by the UN General Assembly in the early 1991, in the context of human assistance, whereby resolution 46/182 affirmed that:

Economic growth and sustainable development are essential for prevention of and preparedness against natural disasters and other

²⁶ Brundtland Report, cit., para. 15.

²⁷ *Ivi*, para. 19.

²⁸ *Ivi*, para. 17.

emergencies. Many emergencies reflect the underlying crisis in development facing developing countries. Humanitarian assistance should therefore be accompanied by a renewal of commitment to economic growth and sustainable development of developing countries.²⁹

The focus on disaster risk reduction also aligns with the “International Decade for Natural Disaster Risk Reduction”, declared by the UN GA in December 1989 with resolution 44/236.³⁰

In 1993, the Agenda 21 dealt with disaster prevention, especially as it concerned the improvement of human settlement planning and management, including land-use.³¹ It promoted three types of activities in particular for disaster-prone countries, consisting of “the development of a ‘culture of safety’, pre-disaster planning and post-disaster reconstruction.”³² These three activities have shaped some of the key tasks at the core of international disaster law, such as disaster risk knowledge, disaster risk reduction and recovery, including the concept of build back better.³³

Most of the concepts emerged from the documents at hand have been further elaborated, with a more contemporary lexicon in 2015, with the Agenda 2030. For example, target 1.5 of SGD 1 (end poverty in all its forms everywhere) indicated the need to “build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.” Also, SDG 11 (make cities and human settlements inclusive, safe, resilient and sustainable) kept

²⁹ Strengthening of the Coordination of Humanitarian Emergency Assistance of the United Nations, UN Doc UNGA Res. 46/182, 19 December 1991, Annex: Guiding Principles, para. 10.

³⁰ International Decade for Natural Disaster Risk Reduction, UN Doc. A/RES/44/236, 22 December 1989; see also the annexed International Framework of Action for International Decade for Natural Disaster Risk Reduction.

³¹ UN Doc. A/RES/44/236, cit., para. 7.55.

³² *Ivi*, para. 7.59.

³³ Cf. The Sendai Framework for Disaster Risk Reduction 2015-2030, UN Doc. A/CONF.224/CRP.1, 18 March 2015 (Sendai Framework) and IFRC, Disaster Risk Governance Guidelines, Geneva, 2024. See *infra* section 5.

the focus – already present in the Agenda 21 – on human settlement by setting two different objectives. Target 11.b foresaw the increase of “human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters.” Moreover, the target under consideration called on States to develop and implement “holistic disaster risk management at all levels”, by referring to one of the key soft law instrument of international disaster law, namely the Sendai Framework for Disaster Risk Reduction 2015-2030.³⁴ Lastly, under SDG 13 (take urgent action to combat climate change and its impacts), target 13.1 indicated the objective of strengthening “resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.”

In sum, the study has highlighted how the relevance of disasters has evolved throughout the legal discourse on sustainable development over the last 30 years, while certain key concepts have emerged. First, disasters were mainly conceived as “natural” events, such as floods and droughts. Second, the link between unsustainable development, to be understood as unsustainable exploitation of natural resources (e.g. deforestation and intense cultivation), and disasters was identified. Third, to address disaster risk, the attention was initially placed on disaster prevention and preparedness to later encompass also other concepts as risk knowledge/awareness (the “culture of safety”) and mitigation. Fourth, only with the Agenda 2030, the role of climate change was considered in relation to disasters, to the point of calling for an holistic approach to disaster risk management that has to include climate change adaptation to build disaster resilience, especially in the context of urban and human settlements. Fifth, environmental sustainability is not mentioned as an autonomous but interrelated concept of sustainable development.

³⁴ The Sendai Framework for Disaster Risk Reduction 2015-2030, UN Doc. A/CONF.224/CRP.1, 18 March 2015 (Sendai Framework).

5. *The Relevance of Environmental Sustainability in International Disaster Law: Disaster Risk Reduction*

The analysis conducted so far has demonstrated how the evolution of the debate on sustainable development has brought to the fore the notions of disaster risk reduction (DDR) and climate change adaptation (CCA). Building on this foundation, the study now turns to the “international disaster law tier” of the analysis to examine the extent to which, and the contexts in which, concepts associated with sustainability and environmental sustainability have been integrated into IDL. In particular, the analysis focuses on the two key concepts of DDR and CCA.

The relationship between IDL and sustainable development has been shaped by a significant shift in the conceptual understanding of disasters, gradually moving away from the notion of so-called “natural” disasters. As previously demonstrated, disasters were predominantly framed as natural disasters, with natural hazards – such as extreme weather events – perceived as the primary triggers of catastrophic events including floods, droughts, wildfires, volcanic eruptions, and tsunamis. Within this framework, disasters were commonly understood as inevitable calamitous events, often explained through concepts such as *force majeure* or “acts of God”. At the same time, “technological” or “man-made” disasters, such as oil spills and nuclear accidents, were distinguished from natural disasters and understood as the unintended consequences of human activities and technological failures.

Progressively, the human footprint was recognized as ubiquitous both in increasing the exposure to existing hazards and in creating new hazards. The primary driver of this “Copernican revolution” can be identified in the global discourse on climate change and in the emergence of climate change law as an integral component of environmental protection law. This evolution is clearly reflected in the widespread use of the term “climate disasters” in the scholarly debate.³⁵ Thus, a progressive reconceptual-

³⁵ J. PEEL, D. FISHER (eds), *The Role of International Environmental Law in Disaster Risk Reduction* (Leiden/Boston, Brill Nijhoff 2016); J. PEEL, “Inter-

ization of disasters started, whereby they are increasingly understood as a combination of several factors, namely the features of a given hazard(s), the exposure and vulnerability of a given community to the hazard(s), combined with the coping capacities of the affected community.³⁶ Correspondingly, the core focus of international disaster law has gradually shifted from an emphasis on post-disaster response towards disaster risk reduction.³⁷ It has also been proposed to understand international disaster law as a continuum of required actions by States and affected communities, where the focus should rest on prevention and reconstruction, rather than on recovery only.³⁸ This section examines the notion of DRR and traces its evolution in international disaster law. In particular, the analysis will demonstrate how sustainable development and environmental protection concerns have shaped the development of DRR, influencing the relevant legal and policy frameworks.³⁹

Disaster risk reduction can be defined as the systematic efforts aimed at preventing new and reducing existing disaster risk

national Environmental Law and Climate Disasters”, in R. Lyster, R.R. Verchick (eds), *Research Handbook on Climate Disaster Law* (Cheltenham, Edward Elgar 2018), pp. 77-96.

³⁶ P. O’KEEFE, K. WESTGATE, B. WISNER, “Taking the Naturalness out of Natural Disasters”, in *Nature*, CCLX (1976), pp. 566-567; B. WISNER *et al.*, *At Risk: Natural Hazards, People’s Vulnerability, and Disasters* (2nd ed., Abingdon/New York, Routledge 2004); G. BARTOLINI, “A Taxonomy of Disasters in International Law”, in *Routledge Handbook of Human Rights and Disasters* (Abingdon/New York, Routledge 2018), pp. 10-26; R. LUPORINI, *Climate Change Adaptation, Disaster Risk Reduction and Human Rights in International Law* (Cham, Springer 2025). See also J. HOPKINS, “Defining a Discipline. What is Disaster Law?”, in D. Cubie (ed), *A Research Agenda for Disaster Law* (Cheltenham, Edward Elgar 2025), pp. 15-27.

³⁷ M. ARONSSON-STORRIER, “Environmental Destruction and the Root Causes of Disaster Risk. The Need for New Imaginaries in International Law”, in D. Cubie (ed), *A Research Agenda*, cit., p. 154 ff.

³⁸ L. BOSHER, K. CHMUTINA, D. VAN NIEKERK, “Stop Going Around in Circles: Towards a Reconceptualisation of Disaster Risk Management Phases”, in *Prevention and Management* (2021), pp. 525-537.

³⁹ A. SIDERS, “Resilient Incoherence: Seeking Common Language for Climate Change Adaptation, Disaster Risk Reduction, and Sustainable Development”, in J. Peel, D. Fisher (eds), *The Role of International Environmental Law*, cit., pp. 101-126.

and managing residual risk, that is “aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development.”⁴⁰

The intersection between disaster risk reduction and environmental protection first entered the international policy framework with the adoption of the 1994 Yokohama Strategy and Plan of Action for a Safer World and the Guidelines for Natural Disaster Prevention, Preparedness and Mitigation. These instruments explicitly recognised the central role of environmental protection in disaster governance, affirming that “[e]nvironmental protection [...] is imperative in the prevention and mitigation of natural disasters.”⁴¹ This position was further reinforced in Principle 9 of the Yokohama Strategy, which provided that “[e]nvironmental protection as a component of sustainable development consistent with poverty alleviation is imperative in the prevention and mitigation of natural disasters.” Building on this premise, the Yokohama Strategy further articulated the close relationship between disaster management and sustainable development, stating that “[d]isaster prevention, mitigation, preparedness and relief are four elements which contribute to and gain from the implementation of sustainable development policies. These elements, along with environmental protection and sus-

⁴⁰ United Nations Office for Disaster Risk Reduction, Sendai Framework Terminology on Disaster Risk Reduction, available at <https://www.undrr.org/terminology/disaster-risk-reduction>. Report of the Open-ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction, UN Doc. A/71/644, 1 December 2016, 16. For the analysis of the international law foundations of DRR, namely of the principles of prevention, mitigation and preparedness see M. ARONSSON-STORRIER, “Exploring the Foundations: The Principles of Prevention, Mitigation and Preparedness in International Law, in M. Aronsson-Storrier, K.N. Bookmiller (eds), *The Cambridge Handbook of Disaster Risk Reduction and International Law* (Cambridge, Cambridge University Press 2019), pp. 52-70.

⁴¹ Yokohama Strategy and Plan of Action for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation, adopted at the World Conference on Natural Disaster Reduction, 23-27 May 1994, Introduction.

tainable development, are closely interrelated.”⁴² In sum, the 1994 Yokohama Strategy was very much focused on the concept of natural disasters, while linking the importance of disaster risk reduction to sustainable development, on the one side, and environmental protection, on the other side. At the time, the current idea of environmental sustainability as one of the components of sustainable development was not present; rather environmental protection was perceived as a distinct objective to be pursued to prevent natural disasters. It was not until a decade later that the 2004 Review of the Yokohama Strategy formally incorporated the concept of disaster hazards of natural, environmental, and technological origin.⁴³

With the Yokohama’s successor, the Hyogo Framework for Action 2005-2015, climate change emerged explicitly within the international disaster law discourse, while the linkage between disaster risk governance and environmental protection was further consolidated through the express identification of environmental degradation, climate variability, and climate change as key factors contributing to disaster risk.⁴⁴ In this context, the Hyogo Framework also called for “the sustainable use and management of ecosystems”.⁴⁵ In other words, with this latter Framework the environmental dimension of sustainable development emerged with more clarity.

The recognition of the central role of environmental protection and sustainability in disaster risk governance articulated in the Hyogo Framework was subsequently strengthened and further developed in the Sendai Framework for Disaster Risk Re-

⁴² *Ivi*, para. 2.

⁴³ Review of the Yokohama Strategy and Plan of Action for a Safer World, UN Doc. A/CONF.206/L.1, 20 December 2004, para. 48. T. KARIMOVA, “Sustainable Development and Disasters”, in S.C. Breau *et al* (eds), *Research Handbook on Disasters and International Law* (Cheltenham, Edward Elgar 2016), p. 180.

⁴⁴ Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, UN Doc. A/CONF.206/6, 22 January 2005.

⁴⁵ *Ivi*, para. 19 (let. b).

duction 2015-2030.⁴⁶ The Sendai Framework situated disaster risk reduction within the sustainable development agenda, affirming that “[e]ffective disaster risk management contributes to sustainable development.”⁴⁷ It also acknowledged that “[t]en years after the adoption of the Hyogo Framework for Action, disasters continue to undermine efforts to achieve sustainable development.”⁴⁸ This emphasis on coherence was further reinforced through specific priorities for action. Under priority 2 (Strengthening disaster risk governance to manage disaster risk), the Sendai Framework suggested a series of activities, including global and regional coordination to foster “the implementation and coherence of instruments and tools relevant to disaster risk reduction, such as for climate change, biodiversity, sustainable development, poverty eradication, environment, agriculture, health, food and nutrition and others, as appropriate.”⁴⁹ Under priority 3 (Investing in disaster risk reduction for resilience), the document called upon States to “[s]trengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction.”⁵⁰ Thus, the Sendai framework marked the indissoluble bond between disaster risk reduction and sustainable development. However, uncertainty remains as to the precise relationship between DRR and the environmental dimension of sustainability whereby many sectors of environmental action are indicated, especially under priority two, as merely “relevant” to DRR. It can be suggested in this regard that the need for coherence advocated by the Sendai Framework should have been grounded on a more coherent approach to environmental sustainability where all the aspects indicated above (i.e. climate change, biodiversity, environment as such, and agriculture) are strictly interconnected, and are not only functional to DRR.

⁴⁶ The Sendai Framework, cit.

⁴⁷ *Ivi*, para. 3.

⁴⁸ *Ivi*, para. 10.

⁴⁹ *Ivi*, para. 28(b).

⁵⁰ Para. 30(n).

The last key document of this analysis are the 2016 International Law Commission (ILC) Draft Articles on the Protection of Persons in the Event of Disasters (Draft Articles), currently under review for the adoption of a multilateral convention by the UN General Assembly.⁵¹ Although the Draft Articles are primarily concerned with disaster response, they explicitly extended their scope of application to DRR under Article 9: Reduction of the risk of disasters.⁵² As clarified in the ILC Commentary,

[w]hile the main emphasis of the draft articles is on the response to disasters, the dimension of disaster risk reduction also falls within their scope and is the subject of draft article 9. In doing so, the Draft Articles acknowledged the general recognition of the essential role of disaster risk reduction, within the international community, particularly evidenced by the Sendai Framework, adopted in 2015.⁵³

The Draft Articles articulated the prevention and reduction of disaster risk as a legal obligation incumbent upon States that encompasses a range of concrete measures, including the conduct of risk assessments, the establishment of early warning systems, and the recognition of the right to access disaster risk infor-

⁵¹ ILC, “Draft Articles on the Protection of Persons in the Event of Disasters 2016”, *Yearbook of the International Law Commission*, 2016, vol. II, Part Two (hereinafter Draft Articles). With Resolution 79/129 the UN General Assembly decided to elaborate and conclude a legally binding instrument on the protection of persons in the event of disasters by the end of 2027, cf. UN Doc. A/RES/79/128, 12 December 2024; see G. BARTOLINI, “Toward a Universal Treaty on ‘Protection of Persons in the Event of Disasters’”, in *EJIL:Talk!*, 17 December 2024, available at www.ejiltalk.org. For a comprehensive analysis of the ILC Draft Articles, G. BARTOLINI, “A Universal Treaty for Disasters? Remarks on the International Law Commission’s Draft Articles on the Protection of Persons in the Event of Disasters”, in *International Review of the Red Cross*, XCIX (2017), p. 1103 ff.

⁵² Draft Articles, Article 9: “1. Each State shall reduce the risk of disasters by taking appropriate measures, including through legislation and regulations, to prevent, mitigate, and prepare for disasters. 2. Disaster risk reduction measures include the conduct of risk assessments, the collection and dissemination of risk and past loss information, and the installation and operation of early warning systems.”

⁵³ Report of the International Law Commission on the work of its sixty-eighth session, Chapter IV, Commentary to Article 2, para. 3.

mation. The ILC Commentary explicitly drew upon the normative influence of the Sendai Framework, which identifies as its overarching goal the need to “[p]revent new and reduce existing disaster risk through the implementation of integrated and inclusive economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery, and thus strengthen resilience.”⁵⁴ It shall be noted that the Draft Articles did not mirror the existing interlinkages between DRR, sustainable development and environmental protection. One can find a limited reference to the Sendai Framework only in the Commentary of Article 9, while environmental measures are listed as just one of the many actions to be adopted by States in an integrated manner to increase the effectiveness of DRR. Also, climate change is not even mentioned. This leads us to consider the other notion associated with the evolution of sustainable development and IDL, namely climate change adaptation.

6. The Relevance of Environmental Sustainability in International Disaster Law: Climate Change Adaptation

Similarly to disaster risk reduction, also the idea of CCA was triggered by the evolution of the discourse of sustainable development, however, CCA was not elaborated as a concept pertaining IDL but rather within the context of environmental and climate change law. Climate change adaptation (CCA) has been defined by the Intergovernmental Panel on Climate Change as follows:

In human systems, climate change adaptation is the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, climate change adaptation is the process of adjustment to ac-

⁵⁴ The Sendai Framework, cit., para. 17, referred to by the ILC Commentary to Article 9, para. 3.

tual climate and its effects, noting that human intervention may facilitate adjustment to expected climate and its effects.⁵⁵

The relationship between climate change and sustainable development was reflected both in the Preamble and in operative provisions of the Paris Agreement. Article 2(1) identifies the consolidation of “the global response to the threat of climate change, in the context of sustainable development” as a key objective, including through “[i]ncreasing the ability to adapt to the adverse impacts of climate change and foster climate resilience.”⁵⁶ This aim is further reinforced by Article 7(1), which establishes a “global goal on adaptation”, which entails “enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response.”⁵⁷

The progressive integration of DRR and CCA under international disaster law has been increasingly advocated both in the literature and in the practice of climate change organs and IDL actors.⁵⁸ Nevertheless, this call for coherence is currently far from

⁵⁵ Intergovernmental Panel on Climate Change, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, 2012, Annex II, Glossary of Terms, available at www.ipcc.ch; see also IFRC, *Disaster Risk Governance Guidelines*, cit., p. 7.

⁵⁶ Paris Agreement, cit.

⁵⁷ *Ibid.*

⁵⁸ As to the literature, see A. SIDERS, “Resilient Incoherence”, cit.; D. CUBIE, T. NATOLI, “Coherence, Alignment and Integration: Understanding the Legal Relationship between Sustainable Development, Climate Change Adaptation and Disaster Risk Reduction”, in S. Flood *et al.* (eds), *Creating Resilient Futures: Integrating Disaster Risk Reduction, Sustainable Development Goals and Climate Change Adaptation Agendas* (Cham, Palgrave 2021); T. NATOLI, “Improving Coherence between Climate Change Adaptation and Disaster Risk Reduction through Formal and Informal International Lawmaking”, in *Journal of International Humanitarian Legal Studies*, XIII (2022), pp. 78-109, p. 87. As to the practice, see Intergovernmental Panel on Climate Change, *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, 2012; *Opportunities and Options for Integrating Climate Change Adaptation with the Sustainable Development Goals and the Sendai Framework for Disaster Risk Reduction 2015-2030*, Technical Paper by the Secretariat, UN FCCC/TP/2017/3 (2017); European Environment Agency (EEA), *Climate Change Adaptation and Disaster Risk Reduction in Europe*:

being achieved, as demonstrated, for example, by the content of Draft Article 9. Also recently, the ICJ *Climate Change* Advisory Opinion only mentioned the term “disasters” three times, the lengthy pronouncement notwithstanding. In particular, when discussing the impairment of human rights caused by climate change, the Court included “natural disasters” among the adverse effects of climate change, along with sea level rise, drought and desertification, disregarding most of the recent debates on the interplay between DRR, climate change and sustainability.⁵⁹

In the practice of disaster risk management, DRR and CCA are strictly correlated for example when it comes to the management of weather and climate-related hazards such as cyclones, floods, drought and heatwaves. Though, as highlighted by the 2024 IFRC Guidelines on Disaster Risk Governance, often DRR and CCA fall within the mandate of different ministries (e.g. internal affairs and environment) and depend on the implementation of diverse key legal documents such as the National DRR Strategy developed to implement the Sendai Framework, the National Adaptation Plan (NAP) and/or the National Adaptation Programme of Action (NAPA).⁶⁰ This gives rise to a series of issues on how to ensure coherence between the instruments and activities in each field, in order to fully realise synergies while also avoiding conflict, duplication and gaps. As noted in the literature, disciplinary boundaries and silos are still hampering effective action and coordination between the two closely linked issues.⁶¹

Enhancing Coherence of the Knowledge Base, Policies and Practices, EEA Report 15 (2017); 33rd International Conference of the Red Cross and Red Crescent, Resolution 7, Disaster Laws and Policies That Leave No One Behind, Doc 33IC/19/R7 (2019).

⁵⁹ ICJ, Advisory Opinion, cit., para. 376: “The Court is thus of the view that the adverse effects of climate change, including, inter alia, the impact on the health and livelihoods of individuals through events such as sea level rise, drought, desertification and natural disasters, may significantly impair the enjoyment of certain human rights. The Court will consider some of these rights, without attempting to be exhaustive.”

⁶⁰ IFRC, Disaster Risk Governance Guidelines, cit., p. 31.

⁶¹ J.I. UITTO, R. SHAW, *Sustainable Development and Disaster Risk Reduc-*

It is interesting to note that the United Nations have launched a relevant initiative that aims at bridging the gaps between DRR and CCA, especially in the field of weather-related hazards. The Early Warnings for All (EW4All) initiative was initiated in 2023 by the UN Secretary-General with the objective of ensuring that all people are protected from hazardous weather, water, and climate-related events through life-saving early warning systems by the end of 2027.⁶² Also in the present case, however, the integration between climate change and environmental sustainability is limited. While the SDGs are recalled in the Executive Action Plan of the initiative presented by the SG to COP27, other sectors that have a relevant impact on DRR and CCA, such as ecosystem degradation, were disregarded.⁶³ Conversely, the EW4All initiative could have embraced a more integrated approach to encompass also actions associated with the protection of the environment and the sustainability perspective. An example could be taken from the 1992 Convention on Biological Diversity and the Kunming- Montreal Global Biodiversity Framework, adopted in December 2022, which called on States to “[m]inimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions.”⁶⁴

Another element of UN practice that is worth considering

tion (Tokyo Heidelberg, Springer 2016), p. 1 ff.; see also J. HOPKINS, “Defining a Discipline. What is Disaster Law?”, cit., p. 21.

⁶² The initiative is structured around four foundational pillars that underpin both Early Warnings for All and effective multi-hazard early warning systems. These pillars are: i) disaster risk knowledge and management, led by the United Nations Office for Disaster Risk Reduction (UNDRR); ii) detection, observation, monitoring, analysis, and forecasting, led by the World Meteorological Organization (WMO); iii) warning dissemination and communication, led by the International Telecommunication Union (ITU); and iv) preparedness and response capabilities, led by the IFRC. Cf. www.earlywarningsforall.org/site/early-warnings-all.

⁶³ UN SG, Early Warnings for All. The Un Global Early Warning Initiative for the Implementation of Climate Adaptation Executive Action Plan, 2023-2027, available at: www.preventionweb.net/media/84612/download?startDownload=20251231.

⁶⁴ Kunming-Montreal Global Biodiversity Framework, Decision 15/4, 19 December 2022, UN doc. CBD/COP/DEC/15/4, Annex, p. 10.

consist of the so called “nature-based solutions” (NbS) that refer to actions aimed at the protection, sustainable management, and restoration of natural or modified ecosystems in order to address societal challenges, including disaster risk reduction, climate change, biodiversity loss, and environmental degradation. The concept was first theorised in the late 2000s, notably by the International Union for Conservation of Nature (IUCN), which formally introduced and promoted NbS as a framework capable of delivering simultaneous environmental, social, and economic benefits.⁶⁵ NbS have been progressively endorsed and operationalised by key international actors, including the United Nations Office for Disaster Risk Reduction (UNDRR).⁶⁶ In the IDL context, NbS are grounded in the Sendai Framework and have been advanced to work with natural processes to reduce hazard exposure and vulnerability while enhancing environmental sustainability. Measures include ecosystem conservation and restoration actions (e.g. replanting forests, mangroves, preserving wetlands and coastal reefs, as well as urban green infrastructures) that can function as natural buffers against floods, landslides, storm surges, and heatwaves, while simultaneously supporting biodiversity, carbon sequestration, and ecosystem services. As such, NbS reinforce the inextricable link between environmental protection, climate change adaptation, disaster risk reduction, and sustainable development.

Notwithstanding their considerable potential, NbS represent only one component of the broader practice of disaster risk management and, to date, have not succeeded in fully mainstreaming environmental sustainability within either the disaster risk reduction or climate change adaptation discourse. Accordingly, the study illustrated how the environmental dimension of sustainable development has been integrated into climate change adaptation in a limited and fragmented manner.

⁶⁵ IUCN, *Defining Nature-based Solutions*, Resolution WCC-2016-Res-069, 10 September 2016. Official information available at www.iucn.org/our-work/nature-based-solutions.

⁶⁶ UNDRR, *Nature-Based Solutions for Disaster Risk Reduction*. Words into Action, Geneva, 2021, available at: <https://www.undrr.org/words-action-nature-based-solutions-disaster-risk-reduction>.

7. Conclusions

The analysis has demonstrated that the fields of environmental sustainability and IDL have been subjected to a limited reciprocal integration. Environmental sustainability has been hardly considered, whereby other associated notions such as sustainable development, environmental protection and climate change adaptation have been preferred. One of the possible reasons of this missed integration could lay with the inner fragmentation of environmental law, whereby environmental protection law (e.g. issues of ecosystem preservation and biodiversity) are kept separate from climate change law. Hence, the focus on integration between CCA and DDR has absorbed most of the attention of the IDL debate, while it failed to trigger a broader reflection on the need to integrate all environmental sustainability concerns in disaster risk management. Another reason may be grounded in the rationale of sustainable development, whereby the very idea of sustainability is associated with a conception of environment as a sum of natural resources to be exploited, rather than grounded in an idea of nature – to which humans belong – to be preserved in itself. As it has been observed, international law treats nature as a separate object to be governed and regulated rather than opening up for explorations of humans' position within it. This limited vision of nature has been transferred into instruments on climate change, environmental protection and disaster risk reduction.⁶⁷

As a consequence, international instruments addressing disaster risk and environmental degradation have predominantly focused on establishing and implementing soft or hard-law instruments, neglecting to rediscuss the human-nature relationship. Environmental sustainability could become a promising international law principle to interpret existing legal frameworks and

⁶⁷ M. ARONSSON-STORRIER, "Environmental Destruction", cit., pp. 156-157; C. H. KESKITALO, *Rethinking Nature Relations: Beyond Binaries* (Edward Elgar, 2023); U. NATARAJAN, J. DEHM, "Conclusion: Remaking International Law", in U. Natarajan, J. Dehm (eds), *Locating Nature: Making and Unmaking International Law* (Cambridge, Cambridge University Press, 2022), pp. 375-378.

bridge the gap between DRR and environmental concerns, broadly speaking. Although the 2022 United Nations General Assembly resolution recognising the human right to a clean, healthy, and sustainable environment may represent a valuable step in this direction, it should be noted that the document entirely omits any reference to disasters. In sum, the development of an environmental sensibility, capable of exerting a positive influence on IDL, will require a more profound re-elaboration of the foundational premises of sustainable development and environmental law.