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FERNÁNDEZ PONS, Xavier, ABEGÓN NOVELLA, Marta, CAMPINS ERITJA, Mar, (Dirs.), *Cambio climático, biodiversidad y salud pública global en el derecho internacional: de la fragmentación a la integración sistémica*, Tirant lo Blanch, Valencia, 2025.

A stark reminder of the fragile planetary health is published on a daily basis, be it under the form of the first African swine fever detection in Spain since late 1994[1], through the disappearance of endangered galaxy frogs in India as a result of reckless human action[2] or with the warning about the limits of carbon capture to fight climate change impacts[3]. These, and many others, are not three isolated facts to the extent that they are integrated, respectively, within a wider impoverishment of global public health, an accelerated loss of biodiversity and a notoriously-felt dangerous climate change. Albeit the concrete manifestations of these three global crises can be linked to very particular causes and, hence, lead to short-sighted solutions , it can hardly be disputed that their shared origin lies in a structural destructive human-ecosystem interaction[4]. International law does not stay static in this unequal interaction, participating in many different ways.

Historically, international law has kept an uneasy relation with the environment. Early modern international law was largely a system of permissive and facultative norms with regards to (ultra) hazardous activates[5], inheriting a productive vision of the environment that was key to distinguish the degree of sovereignty of potential colonies[6]. In the 50s and 60s, as a response to growing environmental harms, a global and interrelated vision of the environment was very slowly trying to take shape in international law. It was with the Stockholm Declaration that new environmental principles governing the behaviour and relations of States were acknowledged[7]. However, this progressive birth of international environmental law (IEL) coincided with the spread of other regimes whose need was assumed by many international actors and the academic literature[8].

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1 "Catalonia closes park after swine fever outbreak", *Reuters*, 29 November 2025, available at https://www.reuters.com/business/healthcare-pharmaceuticals/catalonia-closes-park-after-swine-fever-outbreak-2025-11-29/

2 "'Magical' galaxy frogs disappear after reports of photographers destroying their habitats", *The Guardian*, 17 December 2025, available at https://www.theguardian.com/environment/2025/dec/17/galaxy-frogs-disappear-photographers-habitat-kerala

3 Report of the Special Rapporteur on the promotion and protection of human rights in the context of climate change, "The imperative of defossilizing our economies", A/HRC/59/42, 15 May 2025, at paragraph 16.

4 *See*, among many works pointing in that direction, Jason W. Moore, "Nature and the Transition from Feudalism to Capitalism", Review (Fernand Braudel Center) 26, no. 2 (2003) .

5 L.F.E. Goldie, "Liability for Damage and the Progressive Development of International Law," *The International and Comparative Law Quarterly*, 14, no. 4 (1965): 1221.

6 Usah Natarajan and Kishan Khoday, "Locating Nature: Making and Unmaking International Law," in *Locating Nature: Making and Unmaking International Law* (Cambridge, Cambridge University Press, 2022): 37-38.

7 Dina Shelton, "Stockholm Declaration (1972) and Rio Declaration (1992)," *Max Planck Encyclopedia of Public International Law* (2008), at paragraphs 19 and 20.

8 Martti Koskenniemi, "Hegemonic Regimes", in *Regime Interaction in International Law: Facing Fragmentation*, ed. by Margaret. A. Young (Cambridge, Cambridge University Press, 2012): 315.

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Importantly, the practice of international law through these specialized regimes led, and still leads, to quite some regulatory dysfunctions[9], conceding considerable weight to non-environmental regimes in many domains. Nevertheless, this fragmentation of (at times competing) obligations does not only take place between IEL and other regimes, but also between different sub-regimes in IEL. The international law of climate change, biodiversity and global public health are no exceptions to this dysfunction[10]. Fully aware of the demand for normative integration that the conception of international law as a system entails[11], as well as the multifactorial problems that they deal with, these legal (sub)regimes have tried to deepen their degree of interaction.

It is precisely in this quest for systemic integration, spurred by a more than scientifically justified sense of urgency, that the book *Cambio climático, biodiversidad y salud pública global en el derecho internacional: de la fragmentación a la integración sistémica* (edited by Tirant lo Blanch, 2025) makes a significant contribution. Directed by professors Xavier Fernández Pons, Marta Abegón Novella and Mar Campins Eritja, this collective work adopts a doctrinal perspective to analyse a selection of pressing multifactorial problems, rather new legal concepts, institutions and negatively affected geographical areas where these (sub)regimes (could) enhance international law's overall integration. Along these lines, I contend that the relevance of this book is three-fold.

First, from a methodological standpoint, the systemic integration lenses used in each chapter do not over-stretch the formal foundations of international law. Avoiding such road, easily taken when law's siloes are adjudged against the threshold of current material complexities, does not imply a degree of conformism that impedes discerning structural limits from lower deficiencies and existent legal improvements. In other words, the devise of systemic integration brings to the fore a continuum of deficiencies and potentialities within international law's margin of manoeuvre. Second, the book does not only approach (the lack of) integration between the (sub)regimes of climate change, biodiversity and global public health (*see*, for example, pages 154 and 187); it is also attentive to their fragmentation and difficult interaction with other external regimes such as international trade law (*see* pages 53-54, 137-138 and 309). This way, by means of the different appearances that integration can be materialized into such as the omnipresent *One Health approach* (*see*, among many others, pages 51, 243 and 267) or the CBDfication of CITES[12] (*see* page 286) , the concept of systemic integration is not only an analytical tool but it is also fine-tuned. Third, this work offers a thorough guidance of many agreements and decisions that very recently were adopted, had entered into force or were issued. Taking into account that it was published on the 11th of February of 2025, the fact that there are chapters focused on the Agreement on Marine Biological Diversity

9 Usha Natarajan and Julia Dehm, "Where is the Environment? Locating Nature in International Law", *Third World Approaches to International Law Review, TWAILR: Reflections* 3 (2019): 4.

10 *See* Report of the United Nations Secretary-General, "Gaps in international environmental law and environment-related instruments: towards a global pact for the environment," UN Document A/73/419, 30 November 2018, at paragraph 7.

11 Ángel J. Rodrigo Hernández, "La integración normativa y la unidad del derecho internacional público," in *Unidad y pluralismo en el derecho internacional público y en la comunidad internacional,* ed. by Ángel J. Rodrigo and Caterina Garcia (Tecnos, 2011): 323-324.

12 Convention on International Trade in Endangered Species, adopted 3 March 1973, 993 UNTS 243.

of Areas beyond National Jurisdiction[13] (entering into force in early 2026 after the last ratifications in September 2025), the Pandemic Agreement[14] (adopted in May 2025) and the Inter-American Court of Human Rights (IACtHR) landmark advisory opinion on climate emergency[15] (released in May 2025) speaks greatly of its timely significance.

The twelve chapters' structure does not follow an identifiable order, but this does not stand in the way of a rather smooth transition from one chapter to another. In terms of their content, and acknowledging that it could be problematic to attribute a sole topic to each chapter because of the regime interactions analysed in each of them, the European Union (EU) is the centre of three chapters. In particular, its legislation is examined through the concept of climate resilience, its last regulation on deforestation and its strategy on international wildlife trafficking. The spread of infectious diseases is object of two chapters: one adopting a wide planetary health perspective and a second detailing international law's involvement with antimicrobial resistance (AMR). Water is also deemed as a key part of the biosphere with a chapter on the BBNJ Agreement and another on international river basin organizations. Two chapters share the legal relevance conferred to (different parts of) civil society in an integrated governance; while one analyses the islands of Caribbean Sea through its grassroots organizations, the other concedes priority to the local knowledge dialogues methodology. Finally, two chapters scrutinize different human rights regional systems: one looks at climate change litigation of the European Court of Human Rights (ECtHR) and the other at the rights of access in the Inter-American Human Rights System (IAHRS).

The first chapter represents very well the blueprint for integration that this book aims to draw. In *Health, climate change and biodiversity: mapping regime interactions for future planetary health*, Stephanie Switzer examines the interconnectedness that takes place in the international legal processes involving these three regimes. Adopting a planetary health perspective, she dissects two case studies the content of the binding World Healths Organizations's (WHO) International Health Regulations (IHR)[16] and the negotiation of the Pandemic Agreement related with the governance of pandemics to illustrate how regime interaction should bear in mind the underlying structural path-dependencies present in one regime that could be dragged to such interconnection. It is very illustrative of this danger the containment bias focused on preventing the spread of infectious diseases beyond borders, leaving aside the drivers that set in motion spillover events. Swtizer shows that, even with the advantage of an existent increasing cooperation with international environmental-related organizations (such as the United Nations Environmental Programme (UNEP)) and an interlinkage with IEL, this bias survived the IHR COVID amendment by prompting a surveillance-oriented prevention and made its way to the negotiation framing of the Pandemic Agreement. To sum up, and without disregarding its potentialities, Switzer uses these case studies to give notice

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13 Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction, A/CONF.232/2023/4, adopted 19 June 2023.

14 The Agreement is not open for signature yet. *See* "Nations adopt historic pledge to guard against future pandemics", *UN News* 20 May 2025, available at https://news.un.org/en/story/2025/05/1163451

15 *Climate Emergency and Human Rights*, Advisory Opinion OC-32/17, Inter-American Court of Human Rights Series A No 32.

16 International Health Regulations, adopted 23 May 2005, 2509 UNTS 79.

about possible epistemic closures in the interconnection occurring between other regimes.

The second chapter is situated in a context of never-ending crises that has affected how the EU identifies and decides about next urgent events. In such scenario, Mar Campins holds that the concept of climate resistance has generated a good deal of interest that has not been translated in juridical terms. In *El concepto de resiliencia climática y su delimitación en el Derecho de la Unión Europea*, she fills that gap by gauging to what extent the evolution of climate resilience in the normative framework of the EU adds a substantive element to the juridical debate. In this sense, she describes how the EU has shaped and used (climate) resilience to incorporate uncertainty and risk in its policies, theoretically helping to face structural challenges with the capacity to abandon the *status quo* instead of just seeking for a classical recovery. Campins proposes in a detailed analysis that the main objective of the European Green Deal[17] and the European Climate Law[18], albeit not explicitly stated in any of both texts, is the reinforcement of climate resilience. This way, the basis of climate resilience is unfolded and strengthened through the application of (key principles of) EU environmental law (such as those of precaution, non-regression and just transition).

Continuing with the EU's legal framework, Xavier Fernández Pons looks into the last EU legal measure that tries to have an impact over global deforestation. In *La acción de la Unión Europea para la protección de los bosques del mundo mediante restricciones comerciales: el Reglamento sobre productos libres de deforestación,* he explores to what extent the EU Deforestation Regulation[19] (EUDR) has a wide and ambitious scope (compared to prior similar regulations) and the legal limits it can encounter. In this sense, he notes that the EUDR overcomes the traditional approach to deforestation given that it does not leave out of its purview the deforesting activities legally allowed by the State of origin. Significantly, Fernández Pons devotes a greater part of the chapter to assess its compatibility with WTO law; he warns that the appropriate juridical place to identify the legality of a regulation that imposes (environmental) restrictions to those products whose process and production methods are not physically traceable in them (npr-PPMs) is not found in the likeness test but in the exceptions under article XX of the General Agreement on Tariffs and Trade[20] (GATT). Finally, he analyses the compatibility of EUDR with the two-tier test of GATT's article XX. While he interprets that its sub-paragraphs containing exceptions that justify the violation of GATT's substantive obligations – that is, the first tier – would not be an impediment, its *chapeau* protecting against the lack of arbitrary discrimination – the second tier – would be more challenging due to EUDR's classification of countries in different levels of risks.

17 European Commission, COM (2019) 640 final.

18 Regulation (EU) 2021/119, 30 June 2021, establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), Official Journal of the European Union L243/1, 9 July 2021.

19 Regulation (EU) 2023/1115, 31 May 2023, on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010, Official Journal of the European Union L150, 9 June 2023.

20 General Agreement on Tariffs and Trade, adopted 30 October 1947, 55 UNTS 187.

If forests are key to store CO_2, the High Seas and the Area even in an international agreement devised to preserve its biodiversity are equally important for the governance of climate change. In *El cambio climático y la salud humana en el nuevo Acuerdo sobre la Conservación y el Uso Sostenible de la Diversidad Biológica Marina de las Zonas Situadas Fuera de la Jurisdicción Nacional*, Marta Abegón Novella analyses the recent BBNJ Agreement through the lenses of climate change and human health concerns. In that regard, she first examines the Agreement's ambivalence: one the one hand, it pays limited attention to both concerns (explicitly mentioning climate change six times and human health only two); on the other, these references are inserted in the main substantive parts of the Agreement. However, Abegón Novella pinpoints that its potential for climate change and human health also lies in other articles which, albeit not containing these direct references, can implicitly integrate these concerns. Notoriously, among the articles and concepts that she explains (such as the ecosystem approach), its stands out the Environmental Impact Assessment (EIA) in so far as it can have effects beyond the Agreement's scope of application and elevate the standards, for example, of the EIA regulations adopted by the International Seabed Authority. Last but not least, she also nuances that the relation with other agreements also works in the opposite direction, having to factor them in and seek for cooperation in the application of the BBNJ Agreement.

While climate change is one of the main threats to global public health, the spread of AMR cannot be disregarded as a minor risk. The abuses of antimicrobials in many (economic) sectors, as well as the lack of access to health services in many parts of the world, are behind a growth of AMR that is projected to produce the death of 10 million people yearly by 2050. In *Resistencia antimicrobiana y Derecho internacional: paradigma de un enfoque de integración sistémica*, Xavier Pons Rafols advocates for strengthening the international legal response hinging upon a *One Health approach* instead of the traditional segmented answer. Conceiving AMR as a multifactorial phenomenon originated and accentuated by the triple planetary crisis, his chapter reviews different soft law instruments adopted in the last ten years mainly by the WHO, but also the World Organization for Animal Health (WOAH) and the Food and Agriculture Organization of the UN (FAO), and assesses the centrality they conferred to the *One Health approach*. Taking into account the limits of using non-binding law against the serious challenge posed by AMR, he explores the possibility of resorting to articles 19 and 21 of the Constitution of the WHO which habilitate the adoption of conventions and binding regulations, respectively. Noticing the lack of political will and technical complexity hampering the usage of any of these two options, Pons Rafols suggests that a reference could be found in IEL, for its diluted normative content paired with its evolution in stages could foster a progressive deepening of procedural and substantive obligations to tackle AMR. Finally, he reviews the experiences of institutional coordination initiated to address this multifactorial problem.

The *One Health approach* is also central in Pol Pallàs Secall's *Los organismos de cuenca international ante el enfoque de "Una sola salud"*. Bearing in mind the importance of watercourses as to the state of the environment, Pallàs Segall holds that international river basin organizations have a role to play to narrow down and implement a *One Health approach* which, at first sight, does not seem to fit in the legal regime governing such organizations. Conceiving health as an element cross-cutting the environment, economy

and social well-being, he contends that the principle of integration (of these three very same dimensions) is the appropriate mandatory norm of international law through which these organizations can identify and update their legal obligations as to health. Such conclusion is reached by first analysing in detail the most relevant global conventions on international watercourses. Through the mapping of their health obligations, he concludes that the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes[21] with its consideration of any significant adverse effect on health and its inclusion of the protection of human well-being by means of its 1999 Protocol[22] is the most equipped to link the environment with health along the *One Health approach*. In such operative field, also delimitated by specific basin agreements and by different mechanisms such as health and environmental impact assessments which he both breaks down thoroughly , he clearly sheds light on the legal landscape where the principle of integration can help to build a *One Health Approach* to be followed by international river basin organizations.

In the chapter *Intersection between climate change, biodiversity and human health in the Caribbean: an integrated and civil society approach*, Luis E. Rodríguez-Rivera analyses how the differentiated negative effects product of the interaction of climate change, biodiversity loss and human health problems in the islands located in the Caribbean Sea are insufficiently tackled compared to many other close geographical areas. Accentuated by a history of colonization and exploitation of their natural resources that helps to explain their current political and socio-economic challenges, Rodríguez-Rivera fleshes out how the historical (and present) institutional response is not implementing the integrative approaches and strategies devised by the WHO (One Health) and by the conferences of the Convention on Biological Diversity[23] (CBD) and the United Nations Framework Convention on Climate Change[24] (UNFCCC). Very interestingly, he emphasizes that the traditional practices and discourses of national and regional organizations neglect the capacities and successful impacts of a well-coordinated civil society (and the work of grassroots organizations), advocating for a close connection between them to overcome this deficit. With his chapter, therefore, he shows that the practice of these organizations can be imbued with a popular tinge that is already factored in, and hence has legal room within, the strategies adopted to fulfil the aforementioned IEL. Finally, he concludes with a list civil society projects that have produced positive results in the absence of sustained and organized institutional help.

Against the background of a worldwide expansion of illegal wildlife trade (IWT), CITES has integrated into the assessment and compliance of its obligations the perspectives of biodiversity conservation. In *The European Union's response to the new CITES Strategic Vision 2021-2030*, Teresa Fajardo analyses how this "CBDfication", operating in an international legal context lacking a definition of environmental crime besides some soft law attempts, is legally addressed by one of the main destinations of illegal trade: the EU. Namely, in her chapter it is clearly fleshed out how the EU is trying

[21] UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes, adopted 17 March 1992, 1937 UNTS 269.

[22] Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, adopted 17 June 1999, 2331 UNTS 202.

[23] Convention on Biological Diversity, adopted 5 June 1992, 1760 UNTS 79.

[24] United Nations Framework Convention on Climate Change, adopted 9 May 1992, 1771 UNTS 107.

to tackle the fragmentation of standards followed by States and how it has a limited role regarding zoonosis imported by IWT. As to the fragmentation of standards, it is emphasized how the EU Action Plan on Wildlife Trafficking 2022 aims to widen the use of criminal convictions, instead of administrative infractions, for the most serious violations of CITES in all national jurisdictions. Lastly, in relation to the danger of zoonosis and the ensuing demands listed in CITES Secretariat's Notification 2023/028, Fajardo explains the small margin of action enjoyed by the EU product of the almost exclusive competence of Member States and the governance of the trade and animal health regimes and the development of international cooperation within it.

The loss of biological diversity cannot only be explored through the relevant and dynamic regime of IWT, but also along the lines of its relation with an impoverishing global public health. In *Presupuestos jurídico-internacionales para la salvaguardia de las comunidades tradicionales: diálogo de saberes y enfermedades globales a causa de la pérdida de biodiversidad,* Márcia Rodrígues Bertoldi explores such relation through the lenses provided by the local knowledge dialogues methodology. Building on the premise that local knowledge is the cultural dimension of biodiversity, popular wisdom accumulated through generations has a key role to play in the governance of global public health. Along these lines, and without confronting local knowledge to science but emphasizing the value of their cooperation, Márcia analyses how the protection of local knowledge in the field of genetic resources is operationalized in international law. She holds that certain provisions of the Nagoya Protocol[25], and of CBD too, provide a legal avenue to guarantee the respect of a traditional community's vision to respect biodiversity. Specifically, she details how the access to such genetic resources (as well as the benefits they generate) and the process to reach a consent with traditional communities (by means of the free and prior informed consent *and* mutually agreed terms) place local knowledge in a position to dialogue with scientific and technological knowledges.

The ceaseless phenomenon of climate change litigation is the object of study in Jaume Saura's chapter *International strategic litigation for the protection of climate*. In particular, he analyses three cases decided by the ECtHR *Klimaseniorinnen*[26], *Carême*[27] and *Duarte Agostinho*[28] to gauge how realistic is to use international human rights' courts to litigate climate change. First of all, by paying attention to the findings in prior climate cases before the Human Rights Committee and the Committee on the Rights of the Child, he implicitly creates a sort of yardstick that he resorts, at times, to analyze the progress in the three aforementioned ECtHR cases. Expectedly, the bulk of the chapter is an overview of the most important elements in these judgments, separating those belonging to their admissibility from those related with their merits. Regarding admissibility, he notes that none of the individuals in any of the three cases are recognized as victims, strongly suggesting that the locus standi conferred to the KlimaSeniorinnen association equates to accepting an *actio popularis* complaint. On that front it should be pointed that while certainly the association did not represent people that met the "special" climate victim test, this does not mean that

[25] Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, adopted 29 October 2010, 3008 UNTS 3.
[26] ECtHR, *Verein KlimaSeniorinnen Schweiz and Others v. Switzerland*, no. 53600/20, 9 April 2024.
[27] ECtHR, *Carême v. France*, no. 7189/21, 9 April 2024.
[28] ECtHR, *Duarte Agostinho v Portugal and 32 Others*, no. 39371/20, 9 April 2024.

they were not affected people under the usual victim status[29]. Lastly, as to the merits, Saura warns that the heavy innovation of the ECtHR to find a breach of the right to private and family life in the insufficient measures adopted by Switzerland hides a legal danger in the "forced" incorporation of the climate change legal regime.

The last individual chapter is not distant from climate litigation. Gastón Medici-Colombo analyses the interaction between the IAHRS with its asymmetry of obligations but its receptive *corpus iuris* and the Escazú Agreement[30] an international instrument combining many novelties in the field of rights of access with parts lacking ambition too. In *El Sistema Interamericano de Derechos Humanos y el Acuerdo de Escazú: sinergias para el cumplimiento del Derecho internacional ambiental*, Medici-Colombo fleshes out a synergy operating in both directions but without any notorious imbalance. Namely, by analysing their content and juridical application, he firstly describes the impact of the (standards previously identified by the) IAHRS over the (gaps of the) Escazú Agreement, such as the latter's regime of exceptions. Secondly, he describes the scenarios where Escazú complements the work carried out by the IACtHR in the context of the greening of human rights. Finally, he applies the lenses of such virtuous relation to the governance of climate change, predicting that the Advisory Opinion requested by Chile and Colombia to the IACtHR[31] would entail a catalyzing effect orbiting around the Escazú Agreement. The Advisory Opinion delivered has proven he was spot-on, for one of the three central axes that the Court decided to address that is, the consistency of States' procedural obligations with the Escazú Agreement broadened the scope of the rights of access[32].

To conclude, the directors of the book (Xavier Fernández Pons, Marta Abegón Novella and Mar Campins Eritja) outline the most important findings of the chapters by differentiating between an institutional, normative and jurisprudential integration. While they hold that fragmentation is slowly fading away, they also caution that a lot of work still has to be done to ensure an ambitious and fair integration. Sharing their diagnose, I contend that in the context of the uneasy relation that international law holds with the environment, *Cambio climático, biodiversidad y salud pública global en el derecho internacional: de la fragmentación a la integración sistémica* maps different roads to avert a reactive legal intervention waiting for the governance of already generated environmentally-detrimental externalities. All in all, the analytical-depth of each chapter, the use of (systemic) integration from different perspectives and the timely-relevance of the topics addressed make this book an indispensable reference for international legal scholars.

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29 Corina Heri, "The ECtHR's KlimaSeniorinnen Judgment: A Cautious Model for Climate Litigation", *Spanish Yearbook of International Law* 28 (2024): 319.

30 Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean, 4 March 2018, 3388 UNTS.

31 Chile and Colombia, 'Request for an advisory opinion on the Climate Emergency and Human Rights submitted to the Inter-American Court of Human Rights by the Republic of Colombia and the Republic of Chile', 9 January 2023.

32 Susana Borràs-Pentinat, "The IACtHR Climate Emergency Advisory Opinion: A Legal Analysis of the State Obligations", *Environmental Policy and Law* 0, no. 0 (2025): 5 and 15.