Strategic Litigation at the Domestic and International Levels as a Tool to Advance Climate Change Adaptation?

Challenges and Prospects

*Riccardo Luporini**

1 Introduction

The best available scientific evidence attests that global temperature is rising, and a wide range of adverse effects follow.[1] Climate-related disasters are the most violent manifestation of the impact of climate change on human society, and data show that they are increasing steadily in number and economic cost.[2] 'Climate change mitigation' through reducing sources or enhancing sinks of greenhouse gases (GHG) is widely recognised as a priority.[3]

Besides that, human society has to take all appropriate measures to adapt to the adverse effects of climate change and reduce the risk of disasters. The Intergovernmental Panel on Climate Change (IPCC) defines 'climate change adaptation' as 'the process of adjustment to actual or expected climate and

* Postdoctoral Research Fellow in International Law at the Sant'Anna School of Advanced Studies, Pisa.

1 The reports of the Intergovernmental Panel on Climate Change (IPCC) represent the most established source of scientific evidence on climate change. The IPCC regularly provides summaries of the state of knowledge, by analysing hundreds of reviewed papers, presenting findings and applying the scientific method.

2 Data can be consulted at the world's leading available databases on disaster events, namely EM-DAT of the Centre for Research on the Epidemiology of Disasters (CRED), University of Louvain and NatCatSERVICE by Munich Re. See also: UNDRR, CRED, 'Human cost of disasters. An overview of the last 20 years (2000–2019)' (2020) available at: <www.undrr.org/media/48008/download> and UNDRR, 'Global Assessment Report on Disaster Risk Reduction 2022: Our World at Risk: Transforming Governance for a Resilient Future' (2022), available at <www.undrr.org/publication/global-assessment-report-disaster-risk-reduction-2022>, last accessed (as any subsequent URL) on 16 July 2022.

3 See IPCC [Ottmar Edenhofer, Ramón Pichs-Madruga et al. (eds)], 'Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change', (Cambridge University Press 2014), 4.

its effects, in order to moderate harm or exploit beneficial opportunities'.[4] Adaptation thus refers to a large variety of adjustments – from building flood defences to developing drought-tolerant crops – that need to be introduced into society in order to respond to the impacts of climate change that are already occurring and to lessen and get prepared for potential future impacts.

Driven by the necessity to bridge the accountability and enforcement gap that plagues climate change law, climate litigation is rising on a global scale.[5] The vast majority of climate litigation concerns mitigation, and so does the specialised literature.[6] This is also the case in the Global South, where one would expect adaptation to be a priority, as countries are overall small emitters and very vulnerable to climate impacts.[7]

Certainly, a body of case law on adaptation exists. Nevertheless, adaptation cases are generally 'lower profile and less politically charged',[8] deal with diverse sectorial aspects, such as land use, water management and coastal protection, and often climate change is only indirectly, peripherally or incidentally discussed. Adaptation litigation, for instance, is well developed in Australia, where building and development projects that fail to properly account for climate change impacts are legally challenged.[9] The Australian example is,

4 See IPCC [Christopher B. Field, Vicente Barros, et al. (eds)], 'Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation, A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change' (Cambridge University Press 2012) 5.

5 See Joana Setzer and Catherine Higham, 'Global trends in climate change litigation: 2022 snapshot', (2022) Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science, available at <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/08/Global-trends-in-climate-change-litigation-2022-snapshot.pdf>. See also: UNEP, 'Global Climate Litigation Report. 2020 Status Review' (2021), available at <https://www.unep.org/resources/report/global-climate-litigation-report-2020-status-review>.

6 See Setzer and Higham (n 5); Joana Setzer, Lisa C Vanhala, 'Climate change litigation: A review of research on courts and litigants in climate governance' (2019) 10 Wires Climate Change 580; Jacqueline Peel and Hari M. Osofsky, 'Climate Change Litigation' (2020) 16 Annual Review of Law and Social Science 21. See also Alastair Marke and Marco Zolla, 'Establishing Legal Liability for Climate Change Adaptation Failures: An Assessment of the Litigation Trend' (2020) 14/3, Carbon & Climate Law Review.

7 See Jacqueline Peel and Jolene Lin, 'Transnational Climate Litigation: The Contribution of the Global South' (2019) 113 American Journal of International Law.

8 See Hari M. Osofsky, 'The Geography of Emerging Global South Climate Change Litigation' (2020) 113 AJIL Unbound 64.

9 See Jacqueline Peel and Hari M. Osofsky, 'Sue to adapt?' (2015) 99 Minnesota Law Review 2177 and Jacqueline Peel and Hari M. Osofsky, 'Litigation as an adaptation tool', in 'Climate Change Litigation: Regulatory Pathways to Cleaner Energy' (Cambridge University Press 2015).

however, peculiar because of the major role of specialised national environment and land management courts in building the relevant jurisprudence.

Mitigation easily exceeds adaptation when it comes to 'strategic litigation'. Strategic litigation has been defined as 'cases, where the claimants' motives for bringing the cases go beyond the concerns of the individual litigant and aim to bring about some broader societal shift'.[10] This type of climate case usually involves environmental and social NGOs, as well as transnational networks of lawyers, and social and political campaigns and mobilisation. The strategy often includes selecting the most suitable applicants and respondents and the most appropriate forum for legal action. While strategic litigation may aim at opposing or obstructing climate change regulations ('anti-regulatory' or 'non-climate-aligned' cases), the term is primarily associated with cases intended to advance climate action, by changing the behaviour of government and industry actors, as well as by creating public awareness ('pro-regulatory' or 'climate-aligned' cases).[11] In this subset of climate litigation, which is growing steadily and attracts much attention from scholars, media and policy-makers, adaptation is rarely addressed, and when it is, this is done in a rather residual and/or vague manner.[12]

Against this background, the present contribution aims to investigate the challenges and potential of strategic litigation as a tool to advance climate change adaptation. More specifically, the contribution addresses the following two research questions: (i) why is strategic litigation on climate change adaptation currently underdeveloped as compared to mitigation litigation?; (ii) how and to what extent can this litigation develop in the future and contribute to advancing climate change adaptation?

The contribution focuses on strategic climate change litigation, adopting the definition by Setzer and Higham. It is acknowledged that defining a given case as strategic or non-strategic is a subjective exercise, and in no way is intended to suggest that non-strategic cases are less important or impactful. The distinction, however, is considered sound and appropriate. Adaptation litigation might include lawsuits concerning a range of issues that are primarily of relevance only to the parties involved, e.g., challenges to planning permits for new private properties built in areas subject to climate change-related risks such as rising sea levels or wildfires. This type of litigation – which has developed in some jurisdictions (Australia above all) and is probably still "hidden" or not explicitly related to climate change in others – is not addressed in this

10 Setzer and Higham (n 5).

11 *Ibid.*

12 Some extant cases are discussed in Section 3.

contribution. In addition, as evident from the second research question, the contribution only deals with 'climate-aligned' cases. Finally, considering that adaptation is mainly viewed as a responsibility of state authorities, the contribution only discusses lawsuits brought against state actors, and not those directed at business actors.[13]

Section 2 starts by addressing the current challenges of litigating adaptation. The section traces the development of the international climate change regime, which sees the priority of mitigation over adaptation, highlights the paucity of legally binding national frameworks on adaptation, and stresses the difficulties of measuring and evaluating (lack of) progress in adaptation at both national and global levels. All these factors hamper litigation opportunities. Section 3 illustrates how litigation on adaptation could develop in the future. The section proposes three types of strategic litigation cases on adaptation. Notably, a distinction is made between: (i) targeted adaptation cases, (ii) systemic adaptation cases, and (iii) transnational adaptation cases. Targeted adaptation cases, aiming to protect communities and areas at highest risk from the adverse effects of climate change, are the most likely to rise. Systemic adaptation cases, which complement the growing trend of strategic lawsuits addressing States' overall GHG emissions reduction efforts, could also develop as new adaptation laws are adopted, and methods for tracking adaptation progress and lack thereof improve. Transnational adaptation cases are hampered by a series of technical legal issues. However, these cases are crucial to hold developed States accountable for the insufficient adaptation support provided to developing and least developed countries.

2 Present Challenges to Litigating Adaptation

A first challenge to litigating adaptation stems from adaptation law. Compared to mitigation, the law governing adaptation is more fragmented, less developed and less straightforward at both international and domestic levels.

In the international climate change regime, mitigation has always taken priority over adaptation.[14] This primacy has been reflected in the thoroughness

13 Yet, a recent trend of adaptation litigation against corporations is to be noted, and it may be subject of future research. See cases stored in the Climate Change Litigation Database of the Sabin Center for Climate Change Law, available at <http://climatecasechart.com>, both in the US and Global sections.

14 In general on the international climate change regime, see Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani, 'International Climate Change Law' (Oxford University Press 2017); Cinnamon P. Carlarne, Kevin R. Gray, and Richard Tarasofsky (eds), 'The Oxford

and legal value of the international provisions. The United Nations Framework Convention on Climate Change (UNFCCC) is certainly focused on mitigation, starting from art. 2, which sets the objective of the whole international climate regime: the 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'.[15] In fact, art. 2 mentions adaptation, stating that '[s]uch a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change'. However, this wording seems to suggest that adaptation only concerns ecosystems (and not human society) and that it should occur 'naturally'.

Arguably, the reason for this imbalance is that at the time, mitigation and adaptation were understood as two alternative strategies, and the UNFCCC adoption was to some extent considered the "success" of mitigation strategy over adaptation. At the time, Bodansky eloquently wrote:

> the two types of policy responses to the threat of global warming are abatement (alias mitigation) and adaptation (…) reducing emissions or enhancing sinks could mitigate additional warming (…) *Alternatively*, we could wait to see what happens, and, if warming occurs, try to adapt to its adverse effects (…) Whether abatement or adaptation is preferable depends on various factors, including the relative costs of abatement and adaptation measures (which are highly uncertain), the likelihood of obtaining new information that will reduce uncertainties, and the risk of catastrophe.[16]

More concrete references to adaptation are found in art. 4 on Commitments, which binds all Parties to 'formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to (…) facilitate adequate adaptation to climate change' and cooperate 'in preparing for adaptation to the impacts of climate change'.[17]

Handbook of International Climate Change Law' (Oxford University Press 2016); Benoit Mayer, 'The International Law on Climate Change' (Cambridge University Press 2018).

15 The UNFCCC was agreed upon and adopted at the 1992 Earth Summit in Rio de Janeiro, entered into force in 1994 and today it has 197 Parties. See United Nations Treaty Series, vol 1771, 107.

16 Daniel Bodansky, 'The United Nations Framework Convention on Climate Change: A Commentary' (1993) 18 Yale Journal of International Law, 456–457 (emphasis added). In the same vein, see also Philippe Sands, 'The United Nations Framework Convention on Climate Change' (1992) 270 Review of European Community & International Environmental Law.

17 UNFCCC, art. 4.1 (b), (e).

Adaptation has long been mostly viewed as an issue of concern only for developing and least developed countries particularly vulnerable to the adverse effects of climate change, with the members of the Alliance of Small Island States (AOSIS) in the first place.[18] This may explain why, in the climate change regime, adaptation has a strong international assistance dimension, as well spelt out in art. 4.4 UNFCCC: 'The developed country Parties (…) *shall* also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation'.[19] The provision, however, does not define what adaptation costs are, nor does it refer to a particular level or minimum threshold of funding. In addition, it establishes a general obligation for Annex II parties as a whole, and not for 'each Party'.[20] This and similar provisions stem from the bargaining with developed States, which, on the contrary, have normally resisted the development of adaptation law, precisely because they feared that such a development would have led them to be obliged to financially assist less developed countries.[21]

Overall, although the UNFCCC certainly lays the foundation of current international law on climate change adaptation, it seems difficult to fully agree that the UNFCCC includes an 'impressive list of adaptation duties', as some observers noted.[22]

18 AOSIS is an intergovernmental organisation (with no constitutive charter) established in 1990 at the Second World Climate Conference in Geneva and composed of sixteen different small-island and/or low-lying coastal States from the African, Indian, South China Seas, the Caribbean, and the Pacific Ocean, see the website of the Alliance: <https://www.aosis.org.SmallIslandDevelopingStates>. Small Islands Developing States (SIDS) are recognised to be among the States most seriously affected by climate change. See UN Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States, <https://www.un.org/ohrlls/content/small-island-developing-states>.

19 The special needs of these countries are explicitly emphasised along the UNFCCC. See in particular UNFCCC, Preamble, para. 19; and arts. 3.2 and 4.8.

20 Differently from, for instance, art. 4.3 concerning the necessary costs that developing countries should pay in order to meet the procedural obligation to report to the Conference of the Parties, which reads: 'The developed country Parties and other developed Parties included in Annex II shall provide *new and additional financial resources to meet the agreed full costs* incurred by developing country Parties in complying with their obligations under Article 12, paragraph 1'. See Daniel Bodansky (n 19), 528 and Daniel Bodansky, Jutta Brunnée, Lavanya Rajamani (n 14), 139. Annex II countries include members of the Organisation for Economic Cooperation and Development (OECD) in 1992.

21 Bodansky, Brunnée, and Rajamani (n 14).

22 Jonathan Verschuuren (ed), 'Research Handbook on Climate Change Adaptation Law' (Edward Elgar Publishing 2013), 18.

The primacy of mitigation on adaptation – which was very much confirmed by the adoption of the Kyoto Protocol in 1997[23] – was also due to the limited scientific evidence on the impacts of climate change at that time. A successful mitigation strategy was assumed to prevent ecosystems, food production, and the economy from suffering the adverse effects of climate change, without the need for adaptation measures. It is only from 2001 that the IPCC assessment reports have shown the opposite: adaptation is necessary to confront the impacts of global warming, which are already unavoidable due to past emissions; thus, adaptation is a necessary pillar of climate action.[24] As a result, adaptation dimensions began to be systematically covered in the negotiation process, and its utmost importance was eventually confirmed in 2010, when, under the Cancun Adaptation Framework (CAF), the Parties agreed for the first time that 'adaptation must be addressed with the same priority as mitigation'.[25]

The adoption of the Paris Agreement in 2015 marked a step forward for adaptation.[26] First of all, adaptation is now present in the objectives of the

23 Kyoto Protocol to the United Nations Framework on Climate Change, entered into force on 16 February 2005, see UN Treaty Series, vol 2303, 162.

24 See, in particular, IPCC [James J. McCarthy, Osvaldo F. Canziani, et al. (eds)], 'Climate Change 2001. Impacts, Adaptation and Vulnerability: Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change' (Cambridge University Press 2001).

25 UNFCCC COP, Decision 1/CP.16, 'The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention', FCCC/CP/2010/7/Add.1, March 2011, para. 13. In Cancun, the Parties also established the Adaptation Committee to work as the overall advisory body and coordinator on adaptation and a process for least developed countries and other interested developing countries to formulate and implement National Adaptation Plans (NAPs) to identify and address their medium and long-term adaptation needs. In addition to this, the Green Climate Fund (GCF) was set up as the single largest dedicated fund helping developing countries reduce their GHG emissions and enhance their ability to respond to climate change. The GCF has two separate windows for mitigation and adaptation, with resources that are equally balanced between the two. The Adaptation Fund was already established at the Marrakesh Conference in 2001 under the Kyoto Protocol, yet only in 2010 the first adaptation project was actually financed under this mechanism. See also: Rosemary Lyster, 'Climate Change Law (2018)', Yearbook of International Disaster Law 1 (2019).

26 Paris Agreement, adopted 12 December 2015 and entered into force 4 November 2016, United Nations Treaty Series, vol 3156. For a legal analysis of the Paris Agreement, and its innovative 'bottom-up' approach, see Daniel Bodansky, 'The Legal Character of the Paris Agreement' (2016) 25 Review of European, Comparative & International Environmental Law; Daniel Bodansky, 'The Paris Climate Change Agreement: A new hope?' (2016) 288 American Journal of International Law; Lavanya Rajamani, 'The 2015 Paris Agreement: Interplay Between Hard, Soft and Non-Obligations' (2016) 28 Journal of Environmental Law; Marie-Claire Cordonier Segger, 'Advancing the Paris Agreement on Climate Change

Agreement. According to art. 2, '[i]ncreasing the ability to adapt to the adverse impacts of climate change and foster climate resilience' is one of the ways in which the Agreement aims to 'strengthen the global response to the threat of climate change'.[27] In addition, art. 7 establishes 'the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change'.[28] This is, however, a qualitative and long-term goal, resulting from a compromise between developing and developed countries. The Agreement itself does not provide any requirements regarding the operationalisation of this goal, while the Adoption Decision provides a mandate for the Adaptation Committee to follow up on this and report back to the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement.[29]

In other paragraphs of art. 7, which is entirely devoted to adaptation, the Parties recognise the importance of adaptation as part of 'the long-term global response to climate change' and acknowledge that adaptation action should adopt a 'country-driven, gender-responsive, participatory and fully transparent approach', taking into specific account vulnerable groups, communities and ecosystems, indigenous peoples and their traditional knowledge, under the guidance of the 'best available science'.[30] It has already been observed that the importance of these provisions 'lies less in their legal character but in their ability to provide a political dimension that raises adaptation as a cornerstone of action under the Paris Agreement and a context for adaptation efforts'.[31]

Substantially, the Paris Agreement strengthens adaptation obligations in three different respects. First, the Paris Agreement substantiates the obligation to undertake adaptation action at the national level. Art. 7.9, in particular,

---

for sustainable development', (2016) 5/2 Cambridge Journal of International and Comparative Law; Christina Voigt, 'The Paris Agreement: What is the standard of conduct for parties?' (2016) 26 Questions of International Law; Jorge E. Viñuales, 'The Paris Climate Agreement: An Initial Examination' (2015) 6 C-EENRG Working Papers; Annalisa Savaresi, 'The Paris Agreement: Reflections on an International Law Odyssey' (2016) 13 ESIL Annual Conference Paper Series; Annalisa Savaresi, 'The Paris Agreement: A New Beginning?' (2016) 34 Journal of Energy & Natural Resources Law.

27 Paris Agreement, art. 2.1 (b).

28 Paris Agreement, art. 7.1.

29 UNFCCC COP, Decision 1/CP.21, 'Adoption of the Paris Agreement', UN Doc. FCCC/CP/2015/10/Add.1, January 2016, paras. 41–42.

30 See Paris Agreement, arts. 7.2, 7.4, 7.5, and 7.6.

31 Irene Suárez Pérez, Angela Churie Kallhauge, 'Adaptation (Article 7)', in Daniel R. Klein et al., The Paris Agreement on Climate Change: Analysis and Commentary (Oxford University Press 2017) 202.

imposes the obligation to 'engage in adaptation planning processes and the implementation of actions' on 'each Party' individually.[32] In the provision, however, the use of the verb 'shall' is balanced with the expression 'as appropriate'. It has been noted that this could mean that, while the text imposes an obligation on this point, 'the exact scope and content is for the party to decide, reflecting what is most appropriate for its circumstances'.[33] The provision sets out a non-exhaustive list of adaptation activities, which includes the elaboration and implementation of national adaptation plans, the assessment of climate change impacts and vulnerability, monitoring and evaluation of adaptation plans, policies, programmes and actions, and a very general 'building the resilience of socioeconomic and ecological systems'.[34] Second, the Paris Agreement introduces the procedural "obligation" to submit (and periodically update) an adaptation communication to the UNFCCC Secretariat.[35] The provision, however, is written in the 'should' language, the communication can be submitted as a component of other documents, and there are no precise requirements on the elements to be included. Third, the Agreement elaborates further the obligation to cooperate internationally on adaptation, considering, in particular, the needs of developing countries that are particularly vulnerable to the adverse effects of climate change.[36]

Incidentally, it is to be noted that the Paris Agreement enshrines the formal detachment of 'loss and damage' from adaptation. As explained by Viñuales, '[i]n theory, adaptation is a preventive strategy aimed to avoid as much as possible the negative consequences of climate change' whereas 'loss and damage is geared towards coping with the damage that cannot be avoided'. In other terms, 'adaptation is (still) about prevention whereas loss and damage are about the response (and potentially reparation)'.[37] Despite this clear conceptual distinction, 'averting and minimizing' (i.e., reducing the risk of) loss and damage appears to be central to art. 8, as well exemplified by the listed areas of cooperation and facilitation, which include, *inter alia*, early warning systems, emergency preparedness, comprehensive risk assessment.[38] This

32 Paris Agreement, art. 7.9. This should be read in conjunction with art. 4.1 (b) UNFCCC.
33 See Pérez and Kallhauge (n 31) 210.
34 Paris Agreement, art. 7.9.
35 Paris Agreement, art. 7.10.
36 Paris Agreement, arts. 7.6., 7.7, 9, 10, 11, along with UNFCCC art. 4.4 as mentioned above.
37 See, Viñuales (n 26) 7. See also: Reinhard Mechler, et al. (eds), 'Loss and Damage from Climate Change: Concepts, Methods and Policy Options' (Springer 2019).
38 Paris Agreement, art. 8.4.

result arguably weakens the distinctiveness of the new autonomous pillar of the regime.[39]

All in all, while it is certainly true that adaptation is developing considerably and – as some commentators noted[40] – can be significantly enhanced via the bottom-up and procedural approach of the Paris Agreement, the international provisions on adaptation are still largely vague and with unclear legal value.[41] This constitutes a distinct obstacle to relying on international climate change law in strategic litigation on adaptation.

The less cogent nature of international norms on adaptation corresponds with overall legally weak and fragmented adaptation norms at the domestic level. Recent analysis shows that most countries now have at least one framework document addressing climate change adaptation.[42] However, most of these are executive strategies or plans.[43] National climate change laws mainly address mitigation, while adaptation is only marginally covered. Furthermore, unlike mitigation provisions, in the vast majority of cases, provisions on adaptation do not set precise indicators or targets, but only procedures and institutions, with limited regulatory impact and direct public spending. At the same time, sectorial aspects of adaptation are dealt with in a fragmented variety of regulations spanning different sectors, such as land and soil use, and water and forest management. For example, environmental impact assessments may include consideration of climate change impacts for the approval

39 See also: Morten Broberg, 'The Third Pillar of International Climate Change Law: Explaining "Loss and Damage" after the Paris Agreement' (2020) 10/2 Climate Law. Litigation on loss and damage is still underdeveloped. Despite its clear link with adaptation (simply put, lawsuits requiring state or corporate actors to repair losses and damages from climate change will inevitably prompt them to devote more attention to adaptation action), this potential type of climate litigation is not specifically dealt with in this contribution. See: Patrick Toussaint, 'Loss and damage and climate litigation: The case for greater interlinkage', 30 (2020) Review of European, Comparative & International Environmental Law.

40 Bonnie Smith, 'Adapting the Paris Agreement', (2016) Environmental Law Review Syndicate, Vermont Journal of Environmental Law, available at <https://www.nyuelj.org/2016/04/adapting-the-paris-agreement/>.

41 As also stated by Mayer (n 14) 171. See also Rajamani (n 26); and Bodansky (n 26) 147.

42 Michal Nachmany, Rebecca Byrnes, Swenja Surminski, 'National Laws and Policies on Adaptation: A Global Review', (2019) Grantham Research Institute on Climate Change and the Environment, available at <https://www.lse.ac.uk/granthaminstitute/publication/national-laws-and-policies-on-climate-change-adaptation-a-global-review/>. The research is based on the Climate Change Laws of the World database at the Grantham Institute: <https://climate-laws.org>.

43 Specifically, as of 2019, 91 countries have at least one law addressing adaptation (including in combination with mitigation), while more than 120 countries have at least one framework document that addresses climate change adaptation (including in combination with mitigation). *Ibid.*

of particular projects, or urban planning laws may take into account climate change risks such as increased flooding and heatwaves. Adaptation laws are also widely adopted at the local level, with the responsibility of adopting adaptation measures assigned to local governments.[44]

In the United States (US), for instance, 'there has been no comprehensive approach to climate change adaptation taken in any federal, state, or local legislation or agency regulation'.[45] As a consequence, adaptation relies largely on existing environmental statutes such as the Clean Water Act or the National Environmental Policy Act. In the United Kingdom, the 2008 Climate Change Act, while setting binding targets on emissions reduction, only sets out cycles of risk assessment and adoption of adaptation plans, under the evaluation of a dedicated Committee.[46] The European Union (EU) has been adopting a set of binding secondary laws on climate change over recent years, but these only address emissions reduction. Adaptation at the EU level has been mainly addressed via a strategy with no proper legal effects, adopted in 2013 and relaunched in 2021.[47]

Countries in the Global South have mainly adopted adaptation programs of actions and plans in accordance with international climate change law. Established in 2001 and only for least developed countries, the National Adaptation Programmes of Action (NAPAs) aim to support the most vulnerable countries in addressing the challenge of climate change. As of December 2017, 51 countries had completed and submitted their NAPAs to the UNFCCC secretariat.[48] The initiative was, to a certain extent, superseded by the launch of the National Adaptation Plans (NAPs) under the above-mentioned CAF in 2010. Compared to NAPAs, the NAPs process is open to all developing

44 *Ibid.*

45 Xiangbai He, 'Legal and Policy Pathways of Climate Change Adaptation: Comparative Analysis of the Adaptation Practices in the United States, Australia and China', (2018) 7/2 Transnational Environmental Law, 347–373. See also: Michael B. Gerrard and Katrina Fisher Kuh, 'The Law of Adaptation to Climate Change: U.S. and International Aspects' (2012) American Bar Association.

46 UK Climate Change Act, 2008, Part 4.

47 See: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Forging a Climate-Resilient Europe – The New EU Strategy on Adaptation to Climate Change, COM/2021/82 final. The scenario has changed with the adoption of a new EU Climate Law in 2021, which (to a limited extent) covers adaptation. See *infra* section 3 (n 124).

48 See UNFCCC COP, Decision 28/CP.7, 'Guidelines for the preparation of national adaptation programmes of action', FCCC/CP/2001/13/ADD.4, 21 January 2002. See also: National Adaptation Programmes of Action, available at: <https://unfccc.int/topics/resilience/workstreams/national-adaptation-programmes-of-action/introduction>.

countries and aimed at a more holistic and flexible approach towards a comprehensive medium and long-term climate adaptation planning. As of March 2021, 22 countries submitted their first NAP, while most countries are still in the elaboration process.[49] In terms of binding domestic law, adaptation is not yet widely addressed. In Asia and the Pacific, for instance, despite being very vulnerable areas to climate change, wide gaps in laws and policies on adaptation are reported.[50]

Overall, the dearth of legally binding rules, sectorial fragmentation and a localised approach hamper adaptation litigation strategies based on domestic law.

Another challenge to litigating adaptation arises from the difficulty of monitoring and evaluating adaptation progress, or the lack thereof. Adaptation solutions consist of a huge body of actions, relating to both cross-cutting and sectorial risks, and include measures as diverse as building sea walls and coastal protection structures, developing drought-tolerant crops and setting up land corridors to help species migrate.[51] Adaptation is also very place- and context-specific, and depends heavily on the different circumstances, and environmental and socio-cultural settings. No single approach to adaptation exists that is suitable across all contexts. This multi-sector and context-specific nature of adaptation makes assessing progress very difficult. Today, most countries are just beginning their efforts to develop a functioning national

49 See UNFCCC COP, Decision 5/CP.17, 'National Adaptation Plans', FCCC/CP/2011/9/Add.1, December 2011. See also National Adaptation Plans, available at <https://unfccc.int/topics/adaptation-and-resilience/workstreams/national-adaptation-plans>.

50 Asian Development Bank, 'Climate Change, Coming Soon to a Court Near You. National Climate Change Legal Frameworks in Asia and The Pacific' (2020), available at <https://www.adb.org/publications/national-climate-change-legal-frameworks-asia-pacific>. A comprehensive survey of national adaptation laws is beyond the scope of the study. By searching the Climate Change Laws of the World database at the Grantham Research Institute on Climate Change and the Environment for laws on adaptation in 'East Asia & Pacific' and 'South Asia' at the moment of writing, only 8 documents can be found, some of which are general climate laws that include mitigation and others are non-binding strategies or plans. The database is available at <https://climate-laws.org>.

51 The IPCC distinguishes between structural and physical; social; and institutional options, see IPCC [Christopher B. Field, Vicente Barros, et al. (eds)], 'Climate Change 2014: Impacts, Adaptation, and Vulnerability, Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change', (Cambridge University Press 2014), Chapter 14; Climate-ADAPT distinguishes between grey (technological and engineering), green (ecosystem-based or nature-based) and soft (policy, social, legal, financial) solutions, see Climate-ADAPT, available at <https://climate-adapt.eea.europa.eu/knowledge/adaptation-information/adaptation-measures>.

monitoring and evaluation (M&E) framework for adaptation.[52] Borrowing the IPCC language, the key challenge is that 'adaptation has no common reference metrics in the same way that tonnes of GHGs or radiative forcing values are for mitigation'.[53] Different assessment approaches exist. To put it simply, one could evaluate either the adaptation actions that are undertaken or the adaptation improvements "on the ground". Both approaches have shortcomings: in the former, the overall adaptation progress as a result of the actions taken is not measured, while in the latter, it is hard to attribute the adaptation advances to specific measures adopted, as many external factors play a role.[54]

Tracking adaptation progress becomes even more difficult when considering the global level.[55] With regard to mitigation, the Paris Agreement established the overall objective of limiting temperature increases to 'well below 2°C'.[56] From this objective, a threshold of global GHG emissions release is inferred and, in turn, States' carbon budgets and fair shares.[57] On the contrary, the Agreement did not set any quantifiable metrics on adaptation. The 'global goal on adaptation' is a qualitative, long-term goal, and no quantitative targets or indicators are envisaged.[58] It follows that, as well described by the

52 By 'monitoring' is meant the periodic collection of relevant data on adaptation to create specific indicators on adaptation action, while 'evaluation' means a process of systematic assessment aimed to determine the effectiveness and impact of adaptation action and track progress. See, in general, Barry Smith, Neha Rai, et al., 'Monitoring and evaluation of adaptation – an Introduction', Adaptation Briefings (2019) GIZ, available at <https://www.adaptationcommunity.net/wp-content/uploads/2020/05/Adaptation-Briefings-2-Monitoring-and-Evaluation-of-Adaptation-An-Introduction.pdf>.

53 See IPCC [Christopher B Field, Vicente Barros, et al. (eds)] (n 51) 853.

54 *Ibid*. 856.

55 See James D. Ford et al., 'Adaptation tracking for a post-2015 climate agreement' (2015) 5 Nature Climate Change.

56 Paris Agreement, art. 2.1 (a).

57 And, in turn, States' carbon budgets and fair shares, see: Dirk Messner et al., 'The budget approach: A framework for a global transformation toward a low-carbon economy' (2010) 2 Journal of Renewable and Sustainable Energy, Joeri Rogelj et al., 'Estimating and tracking the remaining carbon budget for stringent climate targets' (2019) 571 Nature. See also the Climate Action Tracker at <https://climateactiontracker.org>.

58 During the negotiations on the Paris Agreement, the African Group submitted a proposal for a quantitative goal, introducing a proper methodological approach for the quantification of adaptation needs and costs. See 'Submission by Swaziland on behalf of the African Group on Adaptation in the 2015 Agreement', 2013, <https://unfccc.int/files/documentation/submissions_from_parties/adp/application/pdf/adp_african_group_workstream_1_adaptation_20131008.pdf>.

United Nations Environment Programme (UNEP), estimating adaptation gaps is far more challenging than calculating emissions gaps.[59]

Difficulties in assessing adaptation action and progress translate into difficulties in judging how and to what extent States are implementing adaptation law. This further hinders opportunities for litigation.

3 Future Prospects: a Proposal of Strategic Case Types

It is true that reducing GHG emissions is crucial to preventing or mitigating climate change impacts in the future. Yet, the best available science clearly affirms that adaptation is also fundamental and complementary to mitigation. It is today evident that current global adaptation action is inadequate and insufficient. Most recently, in its Sixth Assessment Report, the IPCC stated (with high confidence) that 'at current rates of adaptation planning and implementation, the adaptation gap will continue to grow'.[60] Among other things, the 'widening disparities between the estimated costs of adaptation and documented finance allocated to adaptation' are particularly alarming.[61] Indeed, a growing concern is emerging within the UNFCCC negotiation process about the inadequate levels of climate finance mobilised by developed countries so far.[62]

It is therefore submitted that, once strategic litigation is found to be a suitable tool to advance climate action, opportunities to litigate adaptation strategically should be further explored.

---

59 UNEP is publishing 'Adaptation Gap Reports', where 'adaptation gap' is defined as 'the difference (shortfall) between actually implemented adaptation and a societally set goal, determined largely by preferences related to tolerated climate change impacts reflecting resource limitations and competing priorities', see UNEP, 'The Adaptation Gap Report 2014. A Preliminary Assessment' (2014), available at <https://unepdtu.org/project/un-environment-adaptation-gap-reports/>.

60 IPCC [Hans-O Pörtner et al. (eds)], Climate Change 2022 Impacts, Adaptation and Vulnerability. Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Summary for Policy Makers, C.1.2.

61 *Ibid*.

62 In particular, the Glasgow Climate Pact 'notes with deep regret that the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020 (…) has not yet been met', although important pledges by developed countries to increase climate finance to support adaptation in developing countries have been registered. See Glasgow Climate Pact, UNFCCC COP26 Cover Decision, available at <https://unfccc.int/documents/310475>.

In combination with other legal grounds, human rights arguments are increasingly used by litigants to prompt States and corporate actors to enhance climate action.[63] Even in this growing category of strategic litigation, mitigation cases outnumber those on adaptation.[64] This may seem curious if one considers that human rights obligations in relation to adaptation appear to be more straightforward compared to mitigation – as stated by the former Special Rapporteur on Human Rights and the Environment.[65] Under human rights law, States have positive obligations to take all the appropriate steps to both protect human rights from third-party interference and fulfill human rights by facilitating their enjoyment and providing services to that end. The adoption of adaptation measures constitutes a clear example of such steps to take. Once established that the adverse effects of climate change interfere with the enjoyment of human rights and that adaptation measures are fitting for preventing or reducing these effects, States have to take action in this direction, even regardless of the causes of climate change. The typical obstacles of causation and attribution are lessened in relation to adaptation. It is clear that the responsibility to advance adaptation lies principally with the territorial State.[66] Establishing the extent to which that given State is actually contributing to climate change is not a determining factor for adaptation obligations, and there is no need of envisaging complex shared responsibility patterns and "fair share" quotas.[67]

In addition to this, the recent development of disaster law, and the quest for greater alignment with adaptation law, might become yet another ground

63 This is happening to the extent that the specialised literature signalled a 'rights turn' in climate litigation: Jacqueline Peel and Hari M. Osofsky, 'A Rights Turn in Climate Change Litigation?' (2018) 7 Transnational Environmental Law 37. See also Annalisa Savaresi and Juan Auz, 'Climate Change Litigation and Human Rights: Pushing the Boundaries' (2019) 9 Climate Law 2.

64 Annalisa Savaresi and Johanna Setzer, 'Rights-based litigation in the climate emergency: mapping the landscape and new knowledge frontiers' (2022) 13 Journal of Human Rights and the Environment 7.

65 See 'Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment', February 2016 UN Doc. A/HRC/31/52, paras. 68–71.

66 But see Section 3 (iii).

67 See Benoit Mayer, 'Climate Change Mitigation as an Obligation Under Human Rights Treaties?' (2021) 115 American Journal of International Law 409; Gerry Liston, 'Enhancing the efficacy of climate change litigation: how to resolve the "fair share question" in the context of international human rights law' (2020) 9 Cambridge International Law Journal 241.

for future cases.[68] The connection between climate change adaptation and disaster risk reduction (DRR) is particularly evident. DRR is defined as the systematic efforts 'aimed at preventing new and reducing existing disaster risk and managing residual risk'.[69] The International Law Commission devoted one of its Draft Articles on the 'Protection of persons in the event of disasters' to DRR: Draft Article 9 sets out the "obligation" for each State to 'reduce the risk of disasters by taking appropriate measures, including through legislation and regulations, to prevent, mitigate, and prepare for disasters'.[70] The Sendai Framework for Disaster Risk Reduction 2015–2030, adopted at the (Third) World Conference on Disaster Risk Reduction in March 2015 and then endorsed by the UN General Assembly in June of the same year, enshrines a new preventive and people-centred approach to DRR.[71] These evolutions at the international level have provided the basis for concrete advances also in regional and national legislation on DRR.[72] At the same time, the specialised literature has highlighted that human rights law is able to turn some of the existing commitments in the area of DRR into actual legal obligations.[73]

68 See Rosemary Lyster and Robert R.M. Verchick (eds), 'Research Handbook on Climate Disaster Law' (Elgar 2018); Daniel A Farber, 'The Intersection of International Disaster Law and Climate Change Law' (2021) 2/1 Yearbook of International Disaster Law; Anastasia Telesetsky, 'Overlapping International Disaster Law Approaches with International Environmental Law Regimes to Address Latent Ecological Disaster' (2016) 52 Stanford Journal of International Law.

69 UN General Assembly, Res 71/644, 'Report of the Open-ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction' (1 December 2016), 16. See also: Katja L.H. Samuel, Marie Aronsson-Storrier, Kirsten Nakjavani Bookmiller (eds), 'The Cambridge Handbook of Disaster Risk Reduction and International Law' (Cambridge University Press 2019); Giulio Bartolini and Tommaso Natoli, 'Disaster risk reduction: An international law perspective' (2018) 49 Questions of International Law.

70 UN General Assembly, A/71/10, 'Report of the International Law Commission on the work of its sixty-eight session' (2016). See also: Giulio 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', 99 (2017) International Review of the Red Cross.

71 Flavia Zorzi Giustiniani, 'Something old, something new: Disaster risk reduction in international law' (2018) 49 Questions of International Law.

72 *Ibid*.

73 Walter Kälin, 'The Human Rights Dimension of Natural or Human-Made Disasters' (2012) 55 German Yearbook of International Law; Marlies Hesselman, 'Establishing a Full "Cycle of Protection" for Disaster Victims: Preparedness, Response and Recovery according to Regional and International Human Rights Supervisory Bodies' (2013) 18 Tilburg Law Review; Emanuele Sommario and Silvia Venier, 'Human rights law and disaster risk reduction' (2018) 49 Questions of International Law; Flavia Zorzi Giustiniani, Emanuele Sommario, Federico Casolari, Giulio Bartolini (eds), 'Routledge Handbook of Human Rights and Disasters' (Routledge 2018).

The alignment between DRR and climate change adaptation has been called for by authoritative international documents and scholarship.[74] Indeed, the underlying objectives of the two sectors overlap to a large extent, and a series of implementing actions could indistinctly relate to DRR and adaptation.

How and to what extent these new circumstances will translate into litigation remains to be seen. Lawsuits in the aftermath of major disasters are already a common feature in different jurisdictions.[75] The consolidation of DRR obligations at both international and national levels, and their interplay with adaptation and human rights law, may serve as a basis for cases to be brought even before disasters occur, where public authorities are failing to adopt all the necessary measures to tackle disaster risk.

Taking these important developments into account, some case types of strategic litigation on adaptation are here introduced and illustrated. Distinction is made between: (i) targeted adaptation cases; (ii) systemic adaptation cases; and (iii) transnational adaptation cases.

3.1 *Targeted Adaptation Cases*

Targeted adaptation cases are defined here as cases that seek to compel States to protect specific communities and areas that are particularly vulnerable to the effects of climate change. Adaptation gaps are widest among vulnerable and marginalised groups, and in some fragile ecosystems. As explained above, adaptation action is very place- and context-specific. The first strategic case type responds to these features. Applicants would need to demonstrate that they or a specific area are particularly affected by the adverse effects of climate change and that no sufficient adaptation action has been taken, and hence request additional measures on the basis of the State's positive duty to protect vulnerable individuals and communities, as well as fragile ecosystems.

This type of strategic adaptation case can be brought by – or on behalf of – indigenous and other traditional local communities. These communities are

74 See IFRC | UCC, 'Literature review on aligning climate change adaptation (CCA) and disaster risk reduction (DRR)' (authored by Tommaso Natoli), (2019), available at <https://disasterlaw.ifrc.org/media/1299>; Tommaso Natoli, 'Improving Coherence between Climate Change Adaptation and Disaster Risk Reduction through Formal and Informal International Lawmaking', 13 (2022) Journal of International Humanitarian Legal Studies.

75 See the IFRC Disaster Law Database at <https://disasterlaw.ifrc.org/disaster-law-database> and relevant cases at the Climate Change Litigation Database at the Sabin Center (n 13). See also a recent case in Uganda: ClientEarth, 'Landslide victims in court against the Ugandan Government', at <https://www.clientearth.org/latest/press-office/press/landslide-victims-in-court-against-the-ugandan-government/> and Elizabeth Donger, 'Lessons on "Adaptation Litigation" from the Global South: What the Law Can, Can't and Might Do to Help Us Cope with Climate Change', VerfBlog (2022), at <https://verfassungsblog.de/lessons-on-adaptation-litigation-from-the-global-south/>.

among the most vulnerable to climate change impacts. Targeted adaptation cases can thus aim to protect them, their own culture and traditional way of living. Indigenous peoples, in particular, have specific rights recognised under national and international law. At the international level, the right to culture, enshrined in the International Covenant on Civil and Political Rights (ICCPR) as well as in other regional human rights instruments, has been interpreted extensively in the jurisprudence of human rights bodies so as to grant indigenous peoples' culture and way of living special protection against the impacts of development projects and environmental degradation on their lands and resources.[76]

Indeed, indigenous peoples are already active claimants in climate litigation. The first climate complaint before an international body was filed on behalf of the Inuit in 2005.[77] The *Inuit Petition* focused on climate change mitigation, as the applicants claimed that the US was responsible for human rights violations as the largest GHG emitter. Among other remedies, the Inuit demanded an adaptation plan to be implemented by the State in coordination with the affected communities. However, the required plan was not outlined in the petition, and the adaptation solutions envisaged remained completely vague.[78]

76 See International Covenant on Civil and Political Rights, adopted 16 December 1966 and entered into force 23 March 1976, United Nations Treaties Series, 999; United Nations Declaration on the Rights of Indigenous Peoples, U.N. DOC. A/RES/61/295, 2 October 2007; American Convention on Human Rights, adopted on 22 November 1969 and entered into force on 18 July 1978, OAS, Treaty Series, N 36; American Declaration of the Rights and Duties of Man, adopted by the Ninth International Conference of American States OAS Res XXX on 2 May 1948. See in general James Anaya, 'Indigenous Peoples in International Law', (Oxford University Press 2004), and Gaetano Pentassuglia, 'Towards a Jurisprudential Articulation of Indigenous Land Rights' (2011) 22 European Journal of International Law 165.

77 Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations Resulting from Global Warming Caused by Acts and Omissions of the United States ('Inuit Petition'), December 2005, available at (http://climatecasechart.com/non-us-case/petition-to-the-inter-american-commission-on-human-rights-seeking-relief-from-violations-resulting-from-global-warming-caused-by-acts-and-omissions-of-the-united-states/).

78 In the 'Inuit Petition' the applicants demanded the Inter-American Commission on Human Rights (IACommHR) to recommend that the US 'establish[-es] and implement[-s], in coordination with Petitioner and the affected Inuit communities, a plan to provide assistance necessary for Inuit to *adapt* to the impacts of climate change that cannot be avoided'. *Ibid*, Request for relief, 118. A similar request was formulated by the Athabaskan peoples, which filed a petition with the IACommHR in 2013, see Petition to the Inter-American Commission on Human Rights Seeking Relief from Violations of the Rights of Arctic Athabaskan Peoples Resulting from Rapid Arctic Warming and Melting Caused by Emissions of Black Carbon by Canada, April 2013, available at <climatecasechart.com/non-us-case/petition-inter-american-commission-human-rights-seeking-relief-viola

More recent cases are those brought by the *Torres Strait Islanders* against Australia. The Torres Strait Islands are very vulnerable to sea-level rise and extreme weather events: climate change may cause their total submergence. Individual members of different indigenous groups from the Islands filed first a complaint with the Human Rights Committee (HRComm) in May 2019, based on the right to life, private and family life, home and culture enshrined in arts. 6, 17 and 27 of the ICCPR and then a case before the Federal Court of Australia, based on the duty of care that Australian public authorities owe to Torres Strait Islanders.[79] While the domestic case focuses only on mitigation, the complaint before the HRComm concerns both mitigation and adaptation. The applicants demanded that Australia implement effective adaptation measures to secure the communities existence on the islands. In this respect, before the complaint being decided by the HRComm, the applicants already obtained a "key win", as in February 2020, Australia announced its willingness to allocate an additional $25 million for adaptation measures in the islands, in particular to build and repair critical infrastructures such as seawalls and jetties.[80]

In the future, similar cases but with an exclusive focus on adaptation may be attempted. A useful model for a case concerning indigenous peoples and focused on adaptation is the complaint that *five indigenous tribes* brought to the attention of several UN Special Rapporteurs early in 2020 under the pertinent communications procedure.[81] These indigenous tribes based in

tions-rights-arctic-athabaskan-peoples-resulting-rapid-arctic-warming-melting-caused-emissions/>.

79 See *Daniel Billy et al v Australia*, Communication Under the Optional Protocol to the International Covenant of Civil and Political Rights, 13 May 2019 available at <http://climatecasechart.com/non-us-case/petition-of-torres-strait-islanders-to-the-united-nations-human-rights-committee-alleging-violations-stemming-from-australias-inaction-on-climate-change/>. For a comment, Miriam Cullen, 'Eaten by the sea: human rights claims for the impacts of climate change upon remote subnational communities' (2018) 9 Journal of Human Rights and the Environment, 171. See, then, *Pabai Pabai & Guy Paul Kabai v Commonwealth of Australia*, Federal Court of Australia (2021) available at <http://climatecasechart.com/non-us-case/pabai-pabai-and-guy-paul-kabai-v-commonwealth-of-australia/>.

80 See Client Earth, 'Torres Strait Islanders win key ask after climate complaint', Press release of 19 February 2020. The HRComm released its decision on the complaint on 23 September 2022, when this contribution was in the process of being published. The HRComm found that Australia had violated arts. 17 and 27 ICCPR by failing to adopt 'timely adequate' adaptation measures to protect the applicants' home, private and family life, and culture. This decision strengthens the argument for a further development of strategic litigation on climate change adaptation.

81 See *Rights of Indigenous People in Addressing Climate-Forced Displacement*, available at <climatecasechart.com/non-us-case/rights-of-indigenous-people-in-addressing-climate-forced-displacement/>.

Louisiana and Alaska are experiencing climate-forced displacement, caused mainly by sea-level rise and extreme weather events. In their complaint, they claim that the US has failed to implement adaptation action on their lands and protect them against the adverse effects of climate change.[82] In particular, the US would have failed to allocate funds, technical assistance and other resources to support the tribes' right to self-determination, to engage and consult with them and to implement community-led adaptation efforts, including resettlement. The claims are grounded on the Guiding Principles on Internal Displacement, the UN Declaration on the rights of indigenous peoples, as well as on the International Covenants on Economic, Social and Cultural Rights (ICESCR) and the ICCPR. The applicants demanded the Special Rapporteurs to recommend the US to, *inter alia*, recognise the self-determination of the tribes and their collective right to land, subsistence and cultural identity, and to create a 'Federal relocation institutional framework', based on human rights protection, to adequately respond to the threats facing the tribes, including by providing resources for adaptation efforts. This is a non-judicial procedure ending with the Special Rapporteurs writing a formal notice to the State demanding information about the situation.[83] Yet, in the future, similar claims could be attempted before judicial or quasi-judicial bodies.

As the *five indigenous tribes*' complaint shows, displacement of vulnerable communities due to the adverse effects of climate change is likely to be a growing concern, and the issue may increasingly become the subject of strategic climate litigation.[84] In this regard, it is to be noted that the relationship between human mobility and adaptation is not straightforward. On the one hand, adaptation action can be pursued with the aim of preventing displacement. On the other hand, resettlement or relocation (whether internal or cross-border) can be considered in itself an adaptation strategy (of last resort).[85]

82 *Ibid*, 18–36.

83 See Communication to the United States of America (16 October 2020) USA 25/2020, 7, available at UN Office of the High Commissioner on Human rights, Communication report and search, <https://spcommreports.ohchr.org/TmSearch/Results>.

84 IPCC [Hans-O Pörtner et al. (eds)] (n 60), B.1.7. See also the data available at the Internal Displacement Monitoring Centre, <https://www.internal-displacement.org>.

85 Yet, some States, such as SIDS, reject such assertion and argue that this type of 'adaptation by resettlement' would harm their self-determination, national dignity and the right of the inhabitants to their own culture. See for instance the Submissions under Res 7/23 of the UN Human Rights Council regarding the relationship between human rights and the impacts of climate change by the Maldives (September 2008) and the Republic of Marshall Island (December 2008) available at, respectively <www.ohchr.org/Documents/Issues/ClimateChange/Submissions/Maldives_Submission.pdf> and <https://www2.ohchr

Ioane Teitiota v New Zealand is the first illustrative example of how climate change-induced displacement can form the basis for a complaint before an international human rights body.[86] In his complaint, Mr Teititota, a Kiribati national who had to flee his place because of the life-threatening effects of sea-level rise and extreme weather events, claimed that, by rejecting his asylum request, New Zealand violated his right to life enshrined in art. 6 ICCPR. The HRComm rejected the complaint on the merits. Yet, this decision made a "significant opening" to the possibility of including the adverse effects of climate change within the factors able to trigger the *non-refoulment* obligations arising from the rights to life, as well highlighted in the literature.[87] While it cannot be considered an adaptation case per se, this type of international protection complaint can result in enhanced adaptation action, since it can drive neighbouring States, and the international community as a whole, to increase their efforts in supporting adaptation in the most vulnerable countries. This is indeed recalled in the *Teitiota* decision itself, as the HRComm expressed the view that 'without robust national and international efforts, the effects of climate change in receiving States may expose individuals to a violation of their rights under articles 6 or 7 of the Covenant, thereby triggering the *non-refoulement* obligations of sending states'. The Committee also stressed that the risk of complete submergence of a country is 'such an extreme risk' that 'the conditions of life in such a country may become incompatible with the right to life with dignity before the risk is realised'.[88]

Alongside vulnerable communities, this type of adaptation case may aim to protect fragile ecosystems. Climate change has caused 'substantial damages, and increasingly irreversible losses in terrestrial, freshwater and coastal and open ocean marine ecosystems'.[89] Targeted adaptation action is key to preserving exposed ecosystems. At the same time, ecosystems play a great

---

.org/english/issues/climatechange/docs/Republic_of_the_Marshall_Islands.doc>; see also Margaretha Wewerinke-Singh, State Responsibility, 'Climate change and Human Rights under International Law' (2019 Hart Publishing), 110–112.

86 See HRComm, *Ioane Teitiota v New Zealand*, Communication n. 27278/2016, Views adopted on 7 January 2020, UN Doc. CCPR/C/127/D/2728/2016.

87 See among the others: Jane McAdam. 'Protecting People Displaced by the Impacts of Climate Change: The UN Human Rights Committee and the Principle of Non-Refoulement' (2020) 114 AJIL 709, and Emanuele Sommario, 'When Climate Change and Human Rights Meet: A Brief Comment to the UN Human Rights Committee's Teitiota Decision' (2021) 77 Questions of International Law 51.

88 *Ioane Teitiota v New Zealand* (n 86) para. 9.11. See also Margaretha Wewerinke, Melina Antoniadis, 'Vessel for Drowning Persons?' (2022) 3/1 Yearbook of International Disaster Law.

89 IPCC [Hans-O Pörtner et al. (eds)], (n 60), B.1.2.

role in the adaptation of society at large.[90] The role of the judiciary in the field of ecosystem protection is growing worldwide, with a rising number of cases also dealing with climate change.[91] In this connection, special attention has recently been devoted to protecting the Amazon against deforestation. *Demanda Generaciones Futuras v Minambiente et al* is a leading case in this context. In April 2018, Colombia's Supreme Court of Justice held that deforestation and climate change affecting the Colombian Amazon was threatening the fundamental rights of 25 young applicants.[92] With its ruling, which also recognised the Colombian Amazon as a 'subject of rights', the court ordered the government to develop, with the participation of the affected communities, a '*Pacto intergeneracional por la vida del amazonas colombiano*'.[93] Along with measures to reduce deforestation and GHG emissions, the plan had to consider the 'implementation of strategies of a preventative, mandatory, corrective, and pedagogical nature, directed towards climate change adaptation'.[94] However, what this plan entails and which specific adaptation solutions are envisaged is not at all clear. The judgment has not yet been followed by proper implementation.[95] Since the ground-breaking ruling by the Supreme Court of Colombia, similar cases concerning the effects of deforestation and climate change on the Amazon rainforest have been brought before the domestic courts of neighbouring States.[96]

90 "Ecosystem-based adaptation", an approach that uses ecosystem services as part of a holistic adaptation strategy, is emerging both in science and in the international regimes on climate change and biodiversity. See in general: IUCN, 'Ecosystem-based Adaptation', Issues Brief, 2017 <https://www.iucn.org/resources/issues-brief/ecosystem-based-adaptation>; and UNEP, 'Ecosystem-based Adaptation' at <www.unenvironment.org/explore-topics/climate-change/what-we-do/climate-adaptation/ecosystem-based-adaptation>.

91 See James R. May, Erin Daly, 'Judicial Handbook on Environmental Constitutionalism', (UN Environment 2017) available at <https://delawarelaw.widener.edu/files/resources/judicialhandbookonenvironmentalconstitutionalismma.pdf>.

92 *Demanda Generaciones Futuras v Minambiente et al*, Supreme Court of Justice of Colombia, April 2018, STC4360-2018, 11001-22-03-000-2018-00319-01, available at <www.climatecasechart.com/non-us-case/future-generation-v-ministry-environment-others/>.

93 *Ibid*, 49.

94 *Ibid*.

95 Dejusticia, the NGO that promoted the case, has already issued two informs of "failure to comply" (*incumplimiento*), in which it is explained that the Colombian government is not complying with the ruling, while deforestation remains widespread and climate risks are increasing, available at <www.dejusticia.org/litigation/gobierno-esta-incumpliendo-las-ordenes-de-la-corte-suprema-sobre-la-proteccion-de-la-amazonia-colombiana/> and <www.dejusticia.org/que-le-hace-falta-al-gobierno-para-implementar-la-sentencia-contra-el-cambio-climatico-y-la-deforestacion/>.

96 See Johanna Setzer, Délton Winter de Carvalho, 'Climate litigation to protect the Brazilian Amazon: Establishing a constitutional right to a stable climate' (2021) 30/2 RECIEL 197;

Building on these pioneering examples, this case type can be strategically used to protect forests, wetlands, as well as many other ecosystems that are particularly vulnerable to climate change, such as Arctic sea ice or marine coral reefs. While complaints will need to be "adapted" to the specificities of the jurisdictions where they are filed, the right to a healthy environment, which is enshrined in a large and ever-increasing number of national constitutions worldwide, can constitute the primary legal basis for this type of case, along with the more innovative nature rights approach.[97]

Finally, it is important to stress here that some urban ecosystems, i.e., cities, are also particularly vulnerable to climate change. One might think, for example, of coastal megacities, especially in the Global South, that are increasingly at risk from rising sea levels.[98] Also, small affected cities in Europe can resort to litigation. In 2020, a small French municipality at serious risk from rising sea levels, namely *Commune de Grande-Synthe*, launched two climate cases.[99] While the far more famous one primarily concerned mitigation, the second

---

Carlotta Garfalo, 'As the Lung of the Earth Dries Out, Climate Litigation Heats Up: Can Rights-Based Strategies Become a Valid Tool for the Protection of the Amazon Forest?', Völkerrechtsblog, available at <https://voelkerrechtsblog.org/as-the-lung-of-the-earth-dries-out-climate-litigation-heats-up/>; Guilherme Pratti, 'Brazil's Climate Actions Can Become a Tipping Point for the Enforcement of International Environmental Law', Jus Cogens: The International Law Podcast & Blog, available at <https://juscogens.law.blog/2021/06/15/brazils-climate-actions-can-become-a-tipping-point-for-the-enforcement-of-international-environmental-law/>, and relevant cases at the Climate Change Litigation Database of the Sabin Center (n 13).

97 See Pau de Vilchez Moragues and Annalisa Savaresi, 'The Right to a Healthy Environment and Climate Litigation: A Mutually Supportive Relation?' (2021) SSRN, <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3829114>; David R Boyd, 'The rights of nature. A legal revolution that could save the world' (ECW Press 2017); Tiffany Challe, 'The Rights of Nature – Can an Ecosystem Bear Legal Rights?', State of the Planet, Columbia Climate School, available at <https://news.climate.columbia.edu/2021/04/22/rights-of-nature-lawsuits/>.

98 Faith Chan, Olalekan Adekola, 'As sea level rise, coastal megacities will need more than flood barriers, The Conversation', available at <https://theconversation.com/as-sea-levels-rise-coastal-megacities-will-need-more-than-flood-barriers-176935>.

99 *Commune de Grande Synthe v France*, Conseil d'État, N.427301, 19 November 2020, available at <climatecasechart.com/non-us-case/commune-de-grande-synthe-v-france/>; and Conseil d'État, 428177, 12 February 2021. For a comment, see Christian Huglo, 'Procès climatique en France: la grande attente Les procédures engagées par la commune de Grande-Synthe et son maire', AJDA Dalloz 2019, <www.dalloz.fr/lien?famille=revues&dochype=AJDA%2FCHRON%2F2019%2F2709>; Béatrice Parance and Judith Rochfeld, 'Un tsunami juridique: la première décision "climatique" rendue par le Conseil d'État français le 19 novembre 2020 est historique', leclubdejuristes, 2020, <https://blog.leclubdesjuristes.com/un-tsunami-juridique-la-premiere-decision-climatique-rendue-par-le-conseil-detat-francais/>.

one, based on French administrative law, was entirely devoted to adaptation. Although the case did not succeed, it could still provide a useful starting point for similar future cases.[100]

3.2 *Systemic Adaptation Cases*

Systemic adaptation cases are defined here as cases that aim to advance adaptation action nationwide, especially by compelling States to adopt, improve and implement national or sub-national legal and policy frameworks on adaptation. The category of 'systemic adaptation' cases is supposed to complement what Maxwell, van Berkel and Mead have defined as 'systemic mitigation' cases.[101]

Advancing 'systemic adaptation' at the national level should first and foremost represent a priority for Global South countries, which are more exposed to the adverse effects of climate change and have a lower capacity to cope. *Leghari v Pakistan* is the leading example of a 'systemic adaptation' case in this context so far.[102] A Pakistani citizen sued the Government for failing to implement the 2012 National Climate Change Policy and the Framework for Implementation of Climate Change Policy (2014–2030), contending that climate change 'offends' the constitutional rights to life and human dignity and to a healthy and clean environment.[103] Along with constitutional rights arguments, the ruling refers to 'the international environmental principles of sustainable development, precautionary principle, environmental impact assessment, and inter and intra-generational equity'.[104] The case was decided in favour of the applicant in 2015. According to the ruling, 'Pakistan is not a major contributor to global warming, it is actually a victim of climate change and requires immediate remedial adaptation measures to cope with the disruptive climatic patterns'.[105] As a remedy, the court established a Climate

100 The case is further discussed *infra*, see Section 3 (ii).

101 Maxwell, van Berkel and Mead define 'systemic mitigation cases' as 'proceedings in which plaintiffs challenge national or sub-national governments' overall efforts to mitigate dangerous climate change, as illustrated by their greenhouse gas (GHG) emission reduction trajectories or targets'. They distinguish these cases from those proceedings that challenge sector- or project-specific decisions, such as the approval of fossil fuel intensive projects or new fossil fuel exploration or exploitation. See Lucy Maxwell, Sarah Mead, and Dennis van Berkel, 'Standards for adjudicating the next generation of Urgenda-style climate cases' (2022) 13 Journal of Human Rights and the Environment 7.

102 *Leghari v Pakistan*, Lahore High Court, September 2015, 25501/2015, available at <http://climatecasechart.com/non-us-case/ashgar-leghari-v-federation-of-pakistan/>.

103 *Ibid.*, para. 1.

104 *Ibid.*, para. 7.

105 *Ibid.*, para. 3.

Change Commission tasked with the implementation of the climate change legal frameworks. In a further judgment in 2018, the Lahore High Court took note that the Commission successfully implemented a significant number of priority adaptation actions distinguished across different sectors, namely 'coastal and marine areas', 'agriculture and livestock', 'forestry', 'biodiversity', 'wetlands', 'energy', 'disaster management and water'. The court dissolved the Commission and established a Standing Committee on Climate Change to act as a link between the executive power and the court in such a way to ensure the continued implementation of the necessary actions.[106]

Although it remains to be known exactly what impact the judgment has had on the ground,[107] *Leghari v Pakistan* remains a model of strategic, public-interest and adaptation-focused climate case, and should be taken as a reference and replicated, especially in those jurisdictions granting an easy access to justice for public interest litigation on environmental matters. Climate cases are growing substantially in the South Asian region, where this public interest litigation can be resorted to in several jurisdictions, such as India, Pakistan, Bangladesh and Nepal.[108] Yet, litigation on adaptation, in particular, remains 'relatively novel and limited in scope'.[109] An expansion of this case type would be useful to advance adaptation in these countries, also considering that they are significantly impacted by climate change.[110]

There are no similar successful strategic cases on systemic adaptation in the Global North, yet.[111] Strategic climate litigation has been growing significantly

106 *Leghari v Pakistan*, Lahore High Court, January 2018, n. 25501/2015, 17, available at <http://climatecasechart.com/non-us-case/ashgar-leghari-v-federation-of-pakistan/>.

107 See Waqqas Ahmad Mir, 'From Shehla Zia till Ashgar Leghari: Pronouncing Unwritten Rights is More Complex than a Celebratory Tale' in Jolene Lin and Douglas A. Kysar (eds), Climate change litigation in the Asia Pacific (CUP 2020) 262–263.

108 See Asian Development Bank (ADB), 'Climate Change, Coming Soon to a Court Near You, Climate Litigation in Asia and the Pacific and Beyond', December 2020, available at <https://www.adb.org/publications/climate-litigation-asia-pacific>, 22–27 and James R. May, Erin Daly (n 91).

109 *Ibid*, ADB 153.

110 A similar case has already taken place in Nepal. In *Shrestha v Office of the Prime Minister et al* the applicant filed a public interest complaint with the aim of compelling the Nepal government to enact a new climate change law, *Shrestha v Office of the Prime Minister et al*, Supreme Court of Nepal, n. 10210, December 2018, available at <climate-casechart.com/non-us-case/shrestha-v-office-of-the-prime-minister-et-al/>. See Jacqueline Peel and Jolene Lin, 'Climate Change Adaptation Litigation: A View from Southeast Asia', in Jolene Lin, Douglas A. Kysar (eds) Climate Change Litigation in the Asia Pacific (2020 Cambridge University Press) 294–328.

111 At least to the best of the author's knowledge.

in Europe, following the landmark *Urgenda* case.[112] *Urgenda* did not deal with adaptation. The Netherlands – which is well aware of the high vulnerability of its territory to climate impacts, in particular to sea-level rise and flooding – has, as a matter of fact, one of the most advanced adaptation policies the world over.[113] Therefore, the applicants might have had no particular interest in raising claims on adaptation in this specific context. In fact, in the course of the proceedings, adaptation became an argument in the State defence: the respondent State contended that the advanced adaptation measures adopted in the Dutch territory ought to be given due weight in the evaluation of the national climate change policy. The court, however, was not persuaded by this reasoning.[114]

Despite the fact that in other European countries, adaptation policy is quite less advanced than in the Netherlands,[115] the vast majority of "Urgenda's replica cases" before European domestic courts did not address adaptation, while those cases that did, were dismissed.

Adaptation has been only marginally considered in two renowned cases before French domestic courts: *Notre Affaire à Tous and others v France* (also known as the '*Affaire du siècle*') and *Commune de Grande-Synthe v France*.[116] Both cases dealt predominantly with mitigation, and were grounded on the French Charter for the Environment and Environmental Code, the European

112 *The State of the Netherlands v Stichting Urgenda* (2019) ECLI:NL:HR: 2019:2007, English version. For a comment: André Nollkaemper and Laura Burgers, 'A New Classic in Climate Change Litigation: The Dutch Supreme Court Decision in the Urgenda Case' (2020) EJIL: Talk! available at <https://www.ejiltalk.org/a-new-classic-in-climate-change-litigation-the-dutch-supreme-court-decision-in-the-urgenda-case/>.

113 See Laura Oliver, 'Countries around the world are looking to the Netherlands to help them deal with flooding and water crisis. Here's why', Global Commission on Adaptation, October 2019, available at <https://gca.org/countries-around-the-world-are-looking-to-the-netherlands-to-help-them-deal-with-flooding-and-water-crisis-heres-why/>. The Netherlands spends €1.5 billion per year on a single adaptation project, the Delta Programme, which is in place 'to protect the Netherlands from flooding, to ensure a sufficient supply of fresh water, and to contribute to rendering the Netherlands climate-proof and water-resilient', see 'National Delta Programme' available at <english.deltaprogramma.nl/delta-programme>.

114 *The State of the Netherlands v Stichting Urgenda* (n 112) 17.

115 An overview of the situation is offered by Climate-ADAPT, the European platform on adaptation, available at <climate-adapt.eea.europa.eu>.

116 *Notre Affaire à tous et al v France*, Tribunal Administratif de Paris, n. 1904967, 1904968, 1904972, 1904976/4-1, 14 October 2021, available at <http://climatecasechart.com/non-us-case/notre-affaire-a-tous-and-others-v-france/>; *Commune de Grande Synthe v France* (n 99).

Convention on Human Rights (ECHR) and the Paris Agreement. Despite both cases were successful, the (marginal) adaptation components were dismissed.

In *Notre Affaire à Tous and others v France*, the applicants argued that the French National Climate Change Adaptation Plan (PNACC): (i) was adopted in strong delay, (ii) does not contain any binding specific regulatory provision, (iii) presents goals and objectives that are unclear and often incoherent with each other, (iv) includes an estimated budget that is totally inadequate, and (v) contains many measures which have not been adequately implemented.[117] In its decision of February 2021, the Administrative Court of Paris declared that climate change inaction by the French State caused an ecological damage, however, in specific connection to adaptation, the court declared that the inadequacy of the French adaptation plan 'cannot be regarded as having directly caused the ecological damage for which the applicant associations are seeking compensation', hence it rejected the adaptation component of the claim.[118]

In *Commune de Grande-Synthe*, the dismissal seems to be due to the fact that, for their request for adaptation, the applicants relied exclusively on the relevant provisions of the Paris Agreement. In the French internal legal system, these international law provisions have no 'direct effect'; therefore, their breach cannot be invoked before the *Conseil d'État*.[119]

A substantial reason behind these failures lie arguably in the fact that adaptation was clearly peripheral to these cases and addressed in a quite vague manner.[120] While, on the one hand, it makes sense for cases in Europe to focus on mitigation, as emissions reduction should constitute the priority task for large emitting countries, on the other hand, it has become clear that enhancing

117 *Notre Affaire à Tous et al v France*, 'Demande Préalable Indemnitaire' (2018) 37–39.

118 *Notre Affaire à tous et al. v France*, Tribunal Administratif de Paris, n. 1904967, 1904968, 1904972, 1904976/4-1, 3 February 2021, para. 33 (Official French version: '*l'insuffisance de ces mesures ne peut être regardée comme ayant directement causé le préjudice écologique dont les associations requérantes demandent la réparation*'), available at <www.climatecasechart.com/non-us-case/notre-affaire-a-tous-and-others-v-france/>.

119 *Commune de Grande Synthe v France* (n 99). The decision (unofficial English translation) reads: 'If the commune of Grande-Synthe maintains that the decision it is attacking disregards the stipulations of article 2 of the Paris Agreement cited in point 9, these stipulations, as well as stated in point 12, are of *no direct effect*. Consequently, their mere ignorance cannot be usefully invoked against the contested decision' (para. 18), and 'the conclusions of the request of the commune of Grande-Synthe for the annulment of the decision of the court of Grande-Synthe for abuse of power of implied refusals to take any regulatory initiative action to "make the climate priority mandatory" and to implement measures of immediate adaptation to climate change are rejected', (article 4 decision).

120 In *Notre Affaire à tous*, for instance, the applicants demanded as a remedy the French Government 'to take any necessary measure for the adaptation of the national territory, and especially the vulnerable zones, to the effects of climate change'.

adaptation is crucial in tackling the increasingly adverse effects of climate change also in this region.[121] Therefore, strategic cases focusing on adaptation should be also attempted. As mentioned above, the *Commune de Grande-Synthe* brought a second case, which attracted much less attention, entirely devoted to adaptation.[122] This case, however, was also dismissed. The case challenged the French National Adaptation Plan on the basis of French administrative law. Different from the other cases discussed in the section, this lawsuit was not based on the ECHR, or constitutionally recognised fundamental rights. In future cases, especially considering that many countries do not have binding national laws on adaptation in force yet, human rights arguments may be used as a very convenient "gap filler". Arts. 2 and 8 of the ECHR, combined with the right to a healthy environment recognised in most national constitutions, can serve to demand the enhancement of national adaptation plans and measures, besides emissions reduction.[123] In addition to this, it is worth noting that the new EU Climate Law, while focussing on mitigation and climate-neutrality, also binds Member States to adopt and implement national adaptation strategies and plans (art. 5), in line with the revised EU strategy on adaptation.[124]

121 Reference can be made, among other things, to the flash floods that led to at least 165 deaths in Germany in July 2021, see Warren Cornwall, 'Europe's deadly floods leave scientists stunned', (2021) Science, available at <www.sciencemag.org/news/2021/07/europe-s-deadly-floods-leave-scientists-stunned>. The Mediterranean basin is also considered a "hot spot" of climate change, see IPCC [Thomas F. Stocker, et al. eds], 'Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change' (2013) Cambridge University Press.

122 *Commune de Grande-Synthe* (n 99). The case is relevant to both case types, as it finds its origin in a situation of particular vulnerability (a city lying below sea level and affected by sea-level rise), but it addresses a national adaptation framework.

123 On the role of the ECHR and of the European Court of Human Rights in climate litigation see: Ole W. Pedersen, 'Any Role for the ECHR When it Comes to Climate Change?' (2021) 3/1 European Convention on Human Rights Law Review; Jacques Hartmann, Marc Willers, 'Protecting rights through climate change litigation before European courts' (2022) 13 Journal of Human Rights and the Environment; Helen Keller, Corina Heri, Réka Piskóty, 'Something Ventured, Nothing Gained? – Remedies before the ECtHR and Their Potential for Climate Change Cases' (2022) 22/1 Human Rights Law Review.

124 Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'). According to Art. 6, the EU Commission will assess by 30 September 2023, and every five years thereafter, the collective progress made by all Member States on adaptation and the consistency of relevant national measures with ensuring such progress.

It remains to be seen what impact these developments in EU law will have on future strategic climate litigation patterns in Europe.[125]

Finally, in their article, Maxwell, van Berkel and Mead provided some legal standards for judging States' mitigation efforts, based on the systemic mitigation cases adjudicated so far.[126] Drawing from their approach, some points on which litigants might develop their legal arguments in future systemic adaptation cases are here highlighted:

(i) *whether the State has a national legal and/or policy framework on adaptation in place*. The 1992 UNFCCC bound all Parties to engage in national adaptation action.[127] This obligation has been strengthened with the 2015 Paris Agreement.[128] Yet, several States do not have an adaptation strategy and/or plan in force.[129] In these circumstances, strategic litigation should aim at compelling the State to adopt such a framework;

(ii) *whether the national legal and policy frameworks on adaptation meet some minimum substantial and procedural parameters*. On the substantive level, the frameworks have to set clear adaptation objectives and outline a reasonable and coherent set of adaptation measures to achieve these objectives. Procedurally, the public has to be informed and consulted on the elaboration and implementation of the framework. Also, the financial resources commensurate to the objectives have to be allocated, and indicators have to be included to monitor and evaluate adaptation progress.[130]

(iii) *whether existing national frameworks on adaptation are adequately implemented*. If the State adopts a national adaptation framework and this meets the minimum parameters, it should be verified whether the adaptation measures envisaged are effectively taken. This may entail ensuring that an institutional body tasked with the implementation of

125 Sebastian D. Bechtel, 'The New EU Climate Law: Symbolic Law or New Governance Framework?' (2021) VerfBlog, <https://verfassungsblog.de/the-new-eu-climate-law/>.

126 Maxwell, Mead and Berkel (n 101).

127 See UNFCCC, Article 4.1(b).

128 See Paris Agreement, Art. 7.9.

129 For instance, Italy has adopted a national strategy on adaptation in 2015 but it still has to adopt a national plan. The plan is in its approval phase since 2018. See Ministero della Transizione Ecologica, '*Piano Nazionale di Adattamento ai Cambiamenti Climatici*', at <https://www.mite.gov.it/pagina/piano-nazionale-di-adattamento-ai-cambiamenti-climatici>.

130 The two French cases discussed above are examples of cases that challenged substantive and procedural aspects of a national adaptation plan.

the framework has been established and that an effective coordination with sub-national and local actors is carried out.[131]

3.3 *Transnational Adaptation Cases*

Transnational climate litigation encompasses climate cases brought before domestic courts involving foreign plaintiffs or defendants located outside the court's jurisdiction, as well as complaints before international bodies where the individual applicant is not a resident of the respondent State.[132] Transnational climate litigation finds its most meaningful expression and impact when it cuts the Global North-Global South divide in the pursuit of climate justice.[133] Building on this, transnational adaptation cases are defined here as cases that aim to enhance financial, technological and capacity-building support on adaptation from developed countries (Global North) to developing and least developed countries (Global South), as well as to ensure that the recipient countries make an effective use of the support received.

If effective national and sub-national laws and policies are a necessary precondition for advancing adaptation, it is equally crucial to dispense adequate resources and use them wisely. The higher the global temperature rises, the more resources are needed for adaptation. As already mentioned, evident gaps exist in adaptation funding, and they are widening over the years.[134] This situation is particularly alarming for Global South countries and their populations, who suffer the strongest effects of climate change and have less capacity to cope. This issue might (and should) become a matter of interest for future strategic climate litigation.

Individuals from the Global South can first of all try to direct litigation against their own States to prompt them to seek support, acquire the necessary resources and spend them appropriately. Some ground-breaking cases have addressed the misuse of resources that were allocated to climate action.

131 The *Leghari* case is an example of case aiming at the implementation of adaptation frameworks.

132 See Jacqueline Peel and Jolene Lin, 'Transnational Climate Litigation: The Contribution of the Global South' (2019) 113/4 American Journal of International Law. The authors also argue that it is common for climate litigation in general to be described as "transnational" in nature or as part of a "global" climate justice movement in an alternative, broader light even where cases involve only domestic litigants and decisions of domestic courts.

133 Cesar Rodríguez-Garavito, 'Human Rights: The Global South's Route to Climate Litigation' (2020) 114 AJIL Unbound 40.

134 See UNEP, The Adaptation Finance Gap Report (2016) available at <https://unepdtu.org/project/un-environment-adaptation-gap-reports/>, and UNEP, Adaptation Gap Report 2022: Too Little, Too Slow (2022) at <https://www.unep.org/resources/adaptation-gap-report-2022>.

Two instructive examples come from Brazil, where a group of four Brazilian political parties brought two cases before the Federal Supreme Court alleging that the Federal Union is failing to manage the *Climate Fund* and the *Amazon Fund*, two national funds that include international resources for the financing of activities and projects on climate change mitigation and adaptation and prevention and response to deforestation.[135] The lawsuits are mainly based on art. 225 of the Federal Constitution, which enshrines the right to an ecologically balanced environment, along with relevant international law. On 30 June 2022, the Brazilian Federal Supreme Court decided the *Climate Fund* case in favour of the applicants, holding that the executive branch has the constitutional duty to make the Climate Fund's resources work due to the 'constitutional duty to protect the environment (…) international rights and commitments assumed by Brazil (…) as well as the constitutional principle of separation of powers'.[136]

In addition to this, another possibility, as suggested by the specialised literature, would be for applicants bringing climate cases before a domestic court in the Global South to seek as a remedy an order compelling the State to 'perform at best when it comes to finding international assistance and co-operation'.[137] Such a request would be grounded on the general duty to cooperate in good faith under international law, which is confirmed and specified in the UN climate regime, international human rights law, as well as in the International Law Commission's Draft Articles on the 'Protection of persons in the event of disasters'.[138]

---

135 *Psb et al v União Federal Brazil* (*on Climate Fund*), ADPF 708, Supremo Tribunal Federal, 5 June 2020, complaint available at <http://climatecasechart.com/non-us-case/psb-et-al-v-federal-union/> and *Psb et al v Brazil* (*on Amazon fund*) ADO 59/DF, Supremo Tribunal Federal, 5 June 2020 at <http://climatecasechart.com/non-us-case/psb-et-al-v-brazil/>.

136 *Psb et al v União Federal Brazil* (*on Climate Fund*), ADPF 708, Supremo Tribunal Federal, 30 June 2022, decision (and unofficial English translation) available at <http://climatecasechart.com/non-us-case/psb-et-al-v-federal-union/>.

137 Juan Auz, 'Global South climate litigation versus climate justice: duty of international cooperation as a remedy?' (2020) 28 Völkerrechtsblog, available at <https://voelkerrechtsblog.org/articles/global-south-climate-litigation-versus-climate-justice-duty-of-international-cooperation-as-a-remedy/>.

138 See United Nations Charter, art. 1.1, 3; UNFCCC, art. 4.1 (c, d, e, g, h, i) and Paris Agreement, arts. 9,10,11, 12; International Covenant on Economic, Social and Cultural Rights (ICESCR) art. 2 (1); Draft Articles on Protection of persons in the event of disasters, Draft Article 7 'Duty to cooperate'. International cooperation in the Draft Articles is mainly devoted to humanitarian assistance in the aftermath of disaster events. However, cooperation on DRR is also included. See Marlies Hesselman, 'A right to (international) humanitarian assistance in times of disaster: fresh perspectives from international human rights

On the other hand, this litigation could directly tackle the duty of developed States to provide adequate funding and technology for adaptation purposes, as required by international climate change law.[139] To this end, individuals and communities seriously affected by the adverse effects of climate change in the Global South should bring a case against developed States seeking adaptation funding as relief. This type of transnational litigation is certainly very challenging, first and foremost for the immunity that developed States would enjoy before domestic courts in the Global South. Global South' residents could also attempt to bring their case before courts in the Global North. Individuals from the Global South joined resident applicants in a number of recent cases before European domestic courts, as well as before the Court of Justice of the EU.[140]

Recent pioneering transnational lawsuits have also targeted corporations. In *Luciano Lliuya v. RWE AG*, a Peruvian citizen, who is increasingly threatened by flooding and mudslides as a result of the melting of mountain glaciers, brought a case against the German largest electricity producer before a District Court in Germany.[141] Similarly, in July 2022 four residents of the Indonesian island of Pari took legal action against the cement producer Holcim before Swiss judicial authorities.[142] Although the lawsuits primarily address the responsibility

law' in Flavia Zorzi Giustiniani et al. (eds), Routledge Handbook of Human Rights and Disasters (Routledge 2018); Hugo Cahueñas Muñoz, 'Disaster Risk Reduction Cooperation for the Protection of Persons in the Event of Disasters', in Katja L.H. Samuel, Marie Aronsson-Storrier, Kirsten Nakjavani Bookmiller (eds), The Cambridge Handbook of Disaster Risk Reduction and International Law (Cambridge University Press 2019).

139 UNFCCC, arts. 4.3, 4.4, 4.5, 4.7, 4.8, 4.9. According to art. 4.7 in particular 'The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology'. Paris Agreement, arts. 2.1 (c), 4.5, 7.6, 7.7 (d), 9.1, 9.3, 9.4, 10.6, 11.1.

140 See *Yi Prue et al. v Germany* (joined in *Neubauer et al v Germany*) 2020 Federal Constitutional Court, available at <http://climatecasechart.com/non-us-case/neubauer-et-al-v-germany/> and *Armando Ferrão Carvalho and Others v. The European Parliament and the Council* ('The People's Climate Case'), Court of Justice of the EU, T-330/18, available at <http://climatecasechart.com/non-us-case/armando-ferrao-carvalho-and-others-v-the-european-parliament-and-the-council/>. See Lorenzo Gradoni and Martina Mantovani, 'No Kidding! Mapping Youth-Led Climate Change Litigation across the North-South Divide' (2022) VerfBlog, at <https://verfassungsblog.de/no-kidding/>, *Luciano Lliuya v. RWE AG*, Essen Regional Court, 285/15, available at <http://climatecasechart.com/non-us-case/lliuya-v-rwe-ag/>.

141 *Luciano Lliuya v. RWE AG*, Essen Regional Court, 285/15.

142 See Four islands of Pari v Holcim available at <http://climatecasechart.com/non-us-case/four-islanders-of-pari-v-holcim/>. See also: Isabella Kaminski, Indonesian islanders sue cement producer for climate damages, The Guardian (20 July 2022), available at <https://

of major business actors as GHG emitters and contributors to climate change, it is worth noting that they also seek a financial contribution to adaptation measures as a form of damage compensation and they can certainly be instructive for future attempts of transnational litigation on adaptation.

Transnational complaints can also be filed with international human rights bodies, where they have to be based on an extraterritorial reach of international human rights obligations.[143] Although extraterritorial human rights jurisdiction is normally established under very exceptional circumstances, some recent developments might suggest a further opening in this direction. In *Sacchi et al. v Argentina et al.*, while the complaint was dismissed on non-exhaustion of domestic remedies, the Committee on the Rights of the Child was very open about the applicability of extraterritorial human rights obligations to climate change impacts, rejecting the defence of the respondent States about the lack of jurisdiction and applying the progressive stance of the Inter-American Court of Human Rights: 'when transboundary harm occurs, children are under the jurisdiction of the State on whose territory the emissions originated (…) if there is a causal link between the acts or omissions of the State in question and the negative impact on the rights of children located outside its territory, when the State of origin exercises effective control over the sources of the emissions in question'.[144] Although the case focused on mitigation, the same reasoning might be applied to the duty to provide adaptation funding and support.

---

www.theguardian.com/world/2022/jul/20/indonesian-islanders-sue-cement-holcim-climate-damages>.

143 See Jorge E. Viñuales, 'A Human Rights Approach to Extraterritorial Environmental Protection? An assessment', in Nehal Bhuta (ed), The frontiers of Human Rights Extraterritoriality and its Challenges, (Oxford University Press 2016); Samantha Besson, 'Due diligence and Extraterritorial Human Rights Obligations – Mind the Gap!' (2020) 9 ESIL Reflections, available at <https://esil-sedi.eu/wp-content/uploads/2020/04/ESIL-Reflection-Besson-S.-3.pdf>.

144 Committee on the Rights of the Child, *Sacchi et al v Argentina*, CRC/C/88//D/104/2019, 8 October 2021, paras. 10.2–10.12. For a comment, see Margaretha Wewerinke-Singh, Communication 104/2019 Chiara Sacchi et al. v. Argentina et al., Leiden Children's Rights Observatory, Case Note 2021/10, 28 October 2021; Mariangela La Manna, 'Cronaca di una Decisione di Inammissibilità Annunciata: La Petizione Contro Il Cambiamento Climatico Sacchi Et Al. C. Argentina Et Al. Non Supera Il Vaglio Del Comitato Sui Diritti Del Fanciullo', SIDIBlog, 15 November 2021, available at <http://www.sidiblog.org/2021/11/15/cronaca-di-una-decisione-di-inammissibilita-annunciata-la-petizione-contro-il-cambiamento-climatico-sacchi-et-al-c-argentina-et-al-non-supera-il-vaglio-del-comitato-sui-diritti-del-fanciullo/>. See also the *Advisory Opinion on Environment and Human Rights, OC-23/17*, adopted by the Inter-American Court of Human Rights on 15 November 2017.

Finally, an alternative path might be to resort to inter-state litigation, which could be based, *inter alia*, on the breach of the international obligations on adaptation support combined with international human rights obligations understood as *erga omnes* obligations. Inter-state litigation on climate change has already been the subject of much scholarly speculation.[145] Suffice it to note here that the ripening momentum for an advisory opinion on climate change may pave the way for future inter-state contentious cases, not least on adaptation.

4 Conclusions

It is, first of all, plausible that litigants tackle mitigation strategically because this is perceived as the priority action to take in order to fight climate change. Fair enough; reducing GHG emissions is certainly fundamental to avert the worsening effects of climate change. However, adaptation is complementary to mitigation and crucial to lessen the impacts that will, in any event, occur. If global efforts to reduce emissions are insufficient, adaptation gaps are also widening. Currently, this is most evident in the Global South, where adequate adaptation resources are lacking. At the same time, developed countries will also be increasingly affected in future, and they too look unprepared to a certain degree.

Against this background, current case law on adaptation is fragmented and underdeveloped in most jurisdictions. Strategic litigation, in particular, does not pursue adaptation. Investigating the reasons for the discrepancy between mitigation and adaptation cases in litigation, the contribution pointed out that adaptation law is certainly less developed than mitigation law at both the international and national levels. Moreover, science does not yet provide accurate indicators of adaptation progress or lack thereof, in the same way that GHG emission reduction, carbon budget and fair shares do with regard to mitigation. As a result, opportunities for strategic litigation are narrowed.

Despite all that, this contribution makes a case for litigants to devote greater attention to adaptation. To this end, the article presented three different strategic case types that address, respectively: (i) targeted adaptation; (ii) systemic adaptation; and (iii) transnational adaptation. The typology is meant to cover the different situations that may lead to future strategic litigation.

145 See Wewerinke-Singh (n 85) and Annalisa Savaresi, 'Inter-State Climate Change Litigation: "Neither a Chimera nor a Panacea"' in Ivano Alogna, Christine Bakker and Jean-Pierre Gauci (eds), Climate Change Litigation: Global Perspectives (2021 Brill).

Targeted adaptation concerns communities and ecosystems that are particularly vulnerable to the effects of climate change. This type of case is the most likely to develop as it meets the main characteristics of adaptation, which is very place- and context-specific, and aims to protect those at most immediate risk.

Systemic adaptation cases are intended to complement the rising type of strategic case that addresses States' overall GHG emissions reduction efforts ('systemic mitigation' cases). Their development is limited by the shortage of binding laws on adaptation. However, the contribution proposed some standards useful for assessing the systemic adaptation efforts of a given State.

A number of pioneering transnational climate cases are being tested before different fora worldwide. This is the most difficult case type to succeed because of the many technical legal obstacles. It is, however, a crucial type of case as it intercepts the South-North divide and pursues global climate justice. The insufficient financial, technological and capacity-building support for adaptation from developed countries to the least developed and most vulnerable ones could become a subject of this type of litigation.

Acknowledgements

The author wishes to thank the two anonymous reviewers and the editors for their helpful comments and Prof Emanuele Sommario for his guidance and support in research activities.