

Towards the judicial recognition of the right to live in a stable climate system in the European legal space?

Preliminary remarks

di Serena Baldin

Abstract: Verso il riconoscimento giudiziale del diritto di vivere in un sistema climatico stabile nello spazio giuridico europeo? Osservazioni preliminari – This essay has a threefold purpose: it aims at contributing to the literature on climate change litigation by discussing a recent lawsuit launched against the European Union, namely the *Carvalho* case; at identifying recent trends in the circulation of models in this ambit; and at introducing the topic of the right to live in a stable climate system. In this perspective, the essay proceeds as follows. As a starting point, a brief illustration of the threat posed by climate change and the international climate regime are outlined. Subsequently, sections 2 and 3 deal with the themes of the classifications of climate change case law and of the so-called attribution science and its relevance in climate change litigation, making some references to the Dutch *Urgenda* case, which inspired the *Carvalho* case. In section 4, an account of the EU climate change-related disputes and of the *Carvalho* case rendered by the General Court in 2019 and currently pending in appeal before the Court of Justice is provided. This controversy is part of a new generation of climate cases that adopts a rights-based approach and calls for climate justice. Then, in section 5, an illustration of the problematic issue of legal standing in the EU jurisdiction pursuant to Art. 263(4) TFEU is provided. Lastly, section 6 concludes with reflections on the potential for litigation strategy to contribute to the effective enforcement of climate change law in the European legal sphere and on the right to live in a stable climate system.

1419

Keywords: Climate change litigation; Attribution science; Access to justice; Right to live in a stable climate system.

1. Climate crisis in the Anthropocene and climate change litigation strategy

Climate crisis is the major challenge we are facing in the contemporary era. For decades experts have warned policy-makers of the risks of global warming, but it is only in very recent times that there has been a widespread public awareness of the adverse effects linked with this phenomenon and the need to take action with the utmost urgency. With the explicit purpose of emphasising the role played by human beings on the degradation of the Earth's ecosystems and on the changing of climate and the correlated rise of the average surface temperature, many scientists employ the term Anthropocene when referring to the current geological

• This essay is part of the project “Environmental Sustainability in Europe: A Socio-Legal Perspective”, co-funded by the European Union through the Actions Jean Monnet Modules (coordinated by prof. Serena Baldin of the University of Trieste, Italy).

era. They date it back to the latter part of the 18th century, when the anthropogenic emissions of greenhouse gases in the atmosphere due to industrial activities began to increase considerably¹.

The elaborate international climate change regime includes the 1992 United Nations Framework Convention on Climate Change (UNFCCC), the 1997 Kyoto Protocol, and the 2015 Paris Agreement. The UNFCCC is the first act in the world aimed at stabilising greenhouse gas concentrations in the atmosphere, on the assumption that human activities are changing the global climate system and these alterations affect human and natural systems negatively. Climate change is defined in Art. 1, para. 2, UNFCCC as the «change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods»². The UNFCCC has been complemented by the Kyoto Protocol, which has the objective of reducing by 5% the global gas emissions by 2012 compared to 1990. The Protocol provides for binding targets, while the UNFCCC only encourages industrialised countries to stabilise gas emissions. The Paris Agreement adopts a new approach of global cooperation, representing a shift away from the top-down regulatory approach that had previously underpinned the international climate change regime. It combines the bottom-up national target-setting with a top-down oversight system³. The fundamental core of this accord is enshrined in Art. 2, where it is affirmed that the global response to the threat of climate change has to be faced by keeping «the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change».

From a constitutional law perspective, the debate on climate change is embedded in the human rights discourse for the implications that global heating has on fundamental rights. This is clearly pointed out in the Paris Agreement. In its preamble, it is acknowledged that this problem is a common concern of humankind and that the «Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity». According to the UN Special Rapporteur on human rights and the environment, a safe climate is a vital element of the right to a

¹ See P.J. Crutzen, E.F. Stoermer, *The Anthropocene*, in *IGBP Global Change Newsletter*, 41, 2000, 17.

² For an explanation of the first stages in the development of international climate change policy, see J. Werksman, J. Lefevere, A. Runge-Metzger, *The EU and International Climate Change Policy*, in J. Delbeke, P. Vis (eds), *EU Climate Policy Explained*, European Union, 2016, 94 ff., at ec.europa.eu/clima/sites/clima/files/eu_climate_policy_explained_en.pdf.

³ See J. Kreienkamp, *The Long Road to Paris. The History of the Global Climate Change Regime*, in *UCL Policy Brief*, 2019, 9, at www.ucl.ac.uk/global-governance/news/2019/nov/long-road-paris-history-global-climate-change-regime.

healthy environment and is absolutely essential to human life and wellbeing⁴. The failure of the States to take adequate steps to address global warming constitutes a violation of the right to a healthy environment.

It is also worth noting that the anthropogenic interference on the Earth's average surface temperature, perceived as a relevant political matter, has been acknowledged by a large number of States. Almost all of them have signed the UN climate change agreements⁵ and have introduced legislations aimed at reducing greenhouse gas emissions and at adapting the impact of climate change. The phenomenon has been even considered at constitutional level. In this vein, the Constitutions of Bolivia, Dominican Republic, Ecuador, Thailand, Venezuela, Vietnam, Zambia, and also the draft Constitution of Gambia, foresee that plans of management of lands or natural resources need to be carried out adopting measures for the mitigation of global warming⁶.

In the European Union, the legal basis for taking climate actions are enshrined in Art. 11 of the Treaty on the Functioning of the EU (TFEU) concerning the incorporation of environmental protection within the Union's policies and activities and in the Title XX TFEU, headed «Environment» (Articles 191-193). In particular, Art. 191 TFEU affirms that this supranational organisation shall contribute to pursue the objective of «promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change». In preparing its policy, the EU is required to take account of «available scientific and technical data, environmental conditions in the various regions of the Union, the potential benefits and costs of action or lack of action, the economic and social development of the Union as a whole and the balanced development of its regions». The EU Charter of Fundamental Rights (Charter) also provides for «Environmental protection» in its Art. 37, although this provision is formulated as a policy objective which the EU shall strive towards rather than as a human right to a collective good. Furthermore, according to Art. 4(2)(e) TFEU, the environment is included in the

⁴ See United Nations, *Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment*, A/74/161, 15 July 2019.

⁵ To date, the UNFCCC has 197 parties. The US has ratified the UNFCCC but not the Kyoto Protocol. Moreover, after having signed the Paris Agreement, the Trump administration notified UN of US withdrawal from this accord. Other significant emitters which are not parties of the Paris Agreement are Iran and Turkey.

⁶ Art. 407 Const. Bolivia of 2009; art. 194 Const. Dominican Republic of 2015; art. 414 Const. Ecuador of 2008; art. 258 Const. Thailand of 2017; art. 127 Const. Venezuela of 1999; art. 63 Const. Vietnam of 2013; art. 257 Const. Zambia of 2016; art. 252 of the draft Constitution of Gambia. Other constitutions have a less incisive approach on this matter. The preamble of the Const. Côte d'Ivoire of 2016 affirms the State's commitment to contributing to climate protection and to maintaining a healthy environment for future generations. The Const. Tunisia of 2014 recognises the right to participate in the protection of climate (art. 45), as it is only the political commitment of Tunisian citizens. With yet another perspective, in the new Constitution of Cuba, art. 16(f) of the Chapter II devoted to international relations, states that Cuba «Promotes the protection and conservation of the environment as well as responding to climate change, which threatens the survival of the human species, through the recognition of common, yet differential, responsibilities».

category of the shared competences between the EU and its member States. However, climate change is an issue that cannot seriously be tackled at national level alone. Hence, member States have delegated to the Union a leading role in facing this phenomenon⁷. Currently, the EU aims at achieving net-zero emissions by 2050⁸. In addition to policies and secondary legislations in this regard, the EU is a signatory of the UNFCCC and its complementary acts, the Kyoto Protocol and the Paris Agreement.

Arrangements and actions undertaken in this ambit reveal that, in general, States are well aware of the need for an effective response to the threat of climate change, even if at the same time efforts to curb the related measures are noted. Opposed initiatives have the scope of delaying choices not considered as priorities or that of lowering the most rigorous standards of gas emissions for furthering the interests of certain industrial sectors, in particular fossil fuel companies⁹. Due to inadequate responses or unsatisfactory steps forward to counteract global heating on part of governments and gas-emitting corporations, affected groups have turned to mobilisation campaigns. Nowadays we are witnessing a growing number of strikes and demonstrations seeking public and private climate change accountability. In the meantime, NGOs and activists put pressure on States and corporations also through judicial disputes. These have flourished in the last handful of years under the umbrella of a global litigation campaign known as Atmospheric Trust Litigation, which is based on the assumption that domestic courts may order that political branches take decisive measures to face the climate crisis.

Climate change litigation has been defined in a very broad sense as «any piece of federal, state, tribal, or local administrative or judicial litigation in which the party filings or tribunal decisions directly and expressly raise an issue of fact or law regarding the substance or policy of climate change causes and impacts»¹⁰.

⁷ See R. Louvin, *Climate stability as a common good: a strategy for the European Union*, in S. Baldin, S. De Vido (eds), *Environmental Sustainability in the European Union: Socio-Legal Perspectives*, Trieste, 2020, 124.

⁸ The ambitious roadmap for green transition that should cut greenhouse gas emissions was illustrated by the President of the European Commission Ursula Von der Leyen to the EU leaders in December 2019, and it was followed by a proposal for a regulation with a binding objective of climate neutrality by 2050. See Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, “The European Green Deal”, Brussels, 11.12.2019, COM(2019) 640 final; and Proposal for a Regulation of the European Parliament and of the Council establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law), Brussels, 4.3.2020, COM(2020) 80 final.

⁹ For example, ExxonMobil has been suspected of suppressing climate change research as well as spreading doubt about climate science in advertorials, applying the same strategy used in the past by companies involved in tobacco and asbestos litigation. In addition, very recently it would have been an attempt to influence the EU Commission to change its approach towards climate regulation in the transport sector. See G. Supran, N. Oreskes, *Assessing ExxonMobil's Climate Change Communications (1977-2014)*, in *Environmental Research Letters*, 12, 2017, 1 ff.; E. Collins, *ExxonMobil attempts to influence the European Green Deal*, *InfluenceMap*, 6 march 2020, at influencemap.org/report/An-InfluenceMap-Note-ExxonMobil-Lobbies-the-EU-Commission-add01200dc694b00e9ac4bebf660227b.

¹⁰ See D. Markell, J.B. Ruhl, *An Empirical Assessment of Climate Change in the Courts: A New*

Strategic litigation has generated a shift in the focal point of climate action, from the international arena to the domestic level, where the courts are called to impose on the States the meeting of their obligations. It is aimed at influencing public policy and at producing social change demanding climate justice to protect human rights, the adoption of regulations in conformity with international standards, the mitigation of greenhouse gases, adaptation to the impact of climate change, as well as compensation for climate-associated loss and damage¹¹.

Recent lawsuits have incorporated rights-based arguments to sustain the plaintiffs' grievances, signalling a human rights turn in climate litigation¹². Although there are barriers for direct access to justice in several jurisdictions and the final decisions are almost always in favour of the defendants – and hence ineffective though these cases garner public attention –, the increasing role of the courts in the global climate change governance in this manner is brought to light. Moreover, the transformative power that judges may have when they come to adjudicating fundamental rights matters is prompted and, in the very next future, their reasonings could become essential elements in building a multilevel workable response to climate change¹³.

In this regard, the ground-breaking decision in the case *Urgenda Foundation v the State of the Netherlands* issued by a Dutch District Court in 2015 has been acclaimed as «an example for the world»¹⁴, and the same can be said for the judgements sentenced in second instance by the Hague Court of Appeal in 2018 and then in cassation by the Supreme Court of the Netherlands in December 2019. All the three rulings of this judicial saga have affirmed that the State failed to fulfil its obligations by not wanting to reduce greenhouse gas emissions according to international and EU standards, and have ordered the State to limit its emissions.

As environmental human rights have gained recognition from the European Court of Human Rights (ECtHR) in the last decades, so one might suppose that the recent wave of climate change lawsuits currently pending in front of the national judges of the Old Continent will try to reach this regional jurisdiction that is responsible for overseeing the implementation of the Convention for the Protection of Human Rights and Fundamental Freedom (ECHR), the first treaty of the Council of Europe (CoE) and the cornerstone of all its activities¹⁵. In the meantime, a recent case has been brought forward before the Courts of Justice of

Jurisprudence or Business as Usual?, in *Florida Law Rev.*, 1, 2012, 27.

¹¹ The majority of this type of disputes are filed in the United States. A comprehensive database of climate litigation both in the United States and beyond is available at climatecasechart.com/.

¹² See J. Peel, H.M. Osofsky, *A Rights Turn in Climate Change Litigation?*, in *Transnational Environmental Law*, 1, 2018, 37 ff.

¹³ On the transformative adjudication in climate change lawsuits, see E. Barritt, B. Sediti, *The Symbolic Value of Leghari v Federation of Pakistan: Climate Change Adjudication in the Global South*, in *King's Law J.*, 2, 2019, 203 ff.

¹⁴ See R. Cox, *A Climate Change Litigation Precedent: Urgenda Foundation v The State of the Netherlands*, in *Journal of Energy & Natural Resources Law*, 2, 2016, 143 ff.

¹⁵ In this vein, see S. Kirchner, *Climate Change and Environmental Rights Litigation at the European Court of Human Rights: A View from the Arctic*, in *Law and Forensic Science*, 2, 2017, 47 ff.

the EU (CJEU) contending that the EU has failed and continues to fail to meet its purpose of reducing gas emissions and, as a consequence, it is infringing the fundamental rights of the applicants.

In the pages that follow, the arguments put forward by the plaintiffs in the the case *Armando Carvalho and Others v European Parliament and Council of the European Union*, also known as the *People's Climate* case, will be examined¹⁶. This lawsuit offers answers to the following questions: which is the role of science in climate adjudication? Which are the most relevant and problematic profiles regarding the claims invoked in the *Carvalho* case and the procedure foreseen to bring it before the CJEU? Therefore, after an illustration of the manner in which climate change-related litigation has been classified and of the law and science relationship (§§ 2 and 3), the essay focuses on the *Carvalho* case, a controversy that is part of a new generation of lawsuits that adopts rights-based arguments calling for climate justice (§ 4). Since this lawsuit was dismissed by the General Court in 2019 for lack of standing and currently is pending in appeal before the Court of Justice, an analysis of the problematic issue of the *locus standi* in the EU jurisdiction is also provided (§ 5). Lastly, the essay seeks answers to the questions concerning whether the Dutch *Urgenda* case, which inspired the *Carvalho* case, has become a model of climate lawsuit that is circulating in Europe or elsewhere, and whether there are differences between the right to a healthy environment and the right to live in a stable climate system that is invoked in certain cases. Accordingly, the essay concludes with some reflections on the potential contribution of litigation strategy to the effective enforcement of climate change law in the European legal sphere and speculates upon the right to live in a stable climate system (§ 6).

2. Classifications of climate case law and comparative legal issues

Before embarking on the analysis of the *Carvalho* case, a preliminary clarification on what falls under the label of climate change litigation seems necessary. Indeed, the burgeoning number of lawsuits has heightened the interest in this topic. Numerous attempts to classify climate case law have been made during the years, despite the fact that scholars have immediately acknowledged the heterogeneity of the objects covered by these controversies¹⁷. According to most of them, every lawsuit that raises climate change arguments is a case of climate litigation, even if this issue does not serve as the legal basis of the claim, being only a peripheral profile¹⁸.

¹⁶ EU General Court (Second Chamber), 08.05.2019, 888764/19, case T-330/18. The application is available at peoplesclimatecase.caneurope.org/wp-content/uploads/2018/05/application-delivered-to-european-general-court-1.pdf.

¹⁷ In general, on the issue of classifications from a legal point of view, see L. Pegoraro, *Diritto costituzionale comparato. La scienza e il metodo*, Bologna, 2014, 143 ff.; S. Baldin, *Classifications and fuzzy logic: a comparative law perspective*, in S. Bagni, G.A. Figueroa Mejía, G. Pavani (coords), *La ciencia del derecho constitucional comparado. Estudios en Homenaje a Lucio Pegoraro*, I, Ciudad de México, 2017, 129 ff.

¹⁸ See J. Setzer, M. Bangalore, *Regulating climate change in the courts*, in A. Averchenkova, S. Fankhauser, M. Nachmany (eds), *Trends in Climate Change Legislation*, Cheltenham, 2017, 177.

A first criterion to draw a distinction among the whole set of these judicial disputes concerns the public-private divide. Public climate litigation refers to cases begun to exert bottom-up pressure on governments, whereas private litigation is addressed against greenhouse gas-emitting companies. Both types of lawsuit seek to compel defendants to mitigate, adapt or compensate for losses incurred by the effects of climate change. However, public climate litigation is especially focused on the judicial review of regulatory actions or inactions and strives to influence decision-makers mainly through the attainment of injunctive reliefs. The decisions may lead to several results, such as the adoption of more stringent emission standards, the inclusion of emission limits in regulatory permits, the delay or revocation of permits and licences, and more rigorous procedural obligations¹⁹.

Public climate litigation against governments has been further distinguished depending on whether the cases ask for better mitigation measures, or adaptation measures, or respect for procedural requirements. The first type of lawsuits, known as mitigation claims, seeks to compel authorities to take more rigorous measures to stop or reduce gas emissions or to support alternatives as renewable energy. The cases *Urgenda* in the Netherlands and *Pena* in Colombia fall into this class²⁰. They are focused on human rights-based mitigation claims against countries that did not actively prevent climate-related harms, thereby violating human rights for inadequate action on greenhouse gas emissions. The second type of lawsuits, known as adaptation claims, strive to ensure that governments take adaptation measures addressed to affected communities or potentially affected ones, in particular the most vulnerable and weak segments of the society. The landmark ruling issued in the Pakistani *Leghari* case of 2018 is the emblem of this class²¹. The third type of lawsuits, called procedural claims, deals with the respect of procedural requirements in the context of land use and planning, as in the cases of lack of environmental impact assessment (EIA) or denial of access to information or inadequate public participation in the decision-making process²².

¹⁹ See G. Ganguly, J. Setzer, V. Heyvaert, *If at First You Don't Succeed: Suing Corporations for Climate Change*, in *Oxford J. Legal Studies*, 4, 2018, 3.

²⁰ The case *Pena and Others v Government of Colombia* was decided by the Colombia's Supreme Court of Justice in 2018. The Court found the Colombian government liable for not halting the increasing deforestation of the Amazon forest, provoking an increase in the average temperature and threatening the young people's rights to life, health, food, water and a healthy environment. The decision also recognised that the Amazon Basin is a subject of rights.

²¹ In the case *Ashgar Leghari v Federation of Pakistan*, the Lahore High Court Green Bench held that the State had violated citizens' rights to life, dignity and property and ordered the government to take measures to minimise the repercussions of global warming, including presenting a list of climate adaptation measures and to establish a Climate Change Commission in order that urgent action be taken to address the impact of climate change. Interestingly, the Court makes a distinction between environmental justice, regarded as localised, and climate justice, which is a more complex global problem. As a consequence, climate justice moves beyond local environmental justice to embrace multiple new dimensions, such as health, food security, human trafficking and disaster management. For a comment, see J. Peel, H.M. Osofsky, *op. cit.*, 37 ff.; E. Barritt, B. Sediti, *op. cit.*, 203 ff.

²² Greenpeace International, *Holding your Government Accountable for Climate Change: A People's Guide*, 2018, 31 ff., www.greenpeace.org/international/publication/.

A slightly different categorisation based on whether the defendant is a public entity or a private company divides the public controversies into four groups. On the basis of the type of action challenged are identified as follows: a substantive government group, addressed to substantive climate change mitigation or adaptation actions (which imply the adoption of a statute or a policy); an EIA and permitting group, focused on procedural requirements in the context of land use and planning; a rights group, finalised to extend the scope of human rights, property or civil rights to provide protection to individuals or the public against the effects of climate change, which includes lawsuits for access to information or for public participation in decision-making processes; and a climate science group, which includes a few miscellaneous claims related to the portrayal of climate science or climate scientists and the dissemination of climate science²³.

A further proposal tries to classify climate change-related controversies in a way that is supposed to be collectively exhaustive and that simultaneously can enable mutually exclusive categories to be drawn. With this aim, the nature of the climate change regulatory regime in the jurisdiction where the lawsuit is brought and the consequences of the adjudication are the two criteria chosen to elaborate a typology. The first variable distinguishes the regulatory regimes depending on whether they are designed specifically and avowedly for the purposes of addressing anthropogenic climate change or not (called dedicated and non-dedicated climate change legal regimes). The second variable gives rise to alternatives subject to the judicial outcome: a negative decision implies that the emission reductions not be made; a positive decision allows for emission reductions. The combination of these two criteria leads to a matrix of four types of litigation: defensive, promotive, challenging and perfecting²⁴. With regard to the second variable, one may wonder to what extent it can be useful to know whether the final adjudication provides for the emissions reduction. Especially in the hypotheses in which the research viewpoint goes beyond the national scenario, the different rules and procedures underpinning adjudications in each State can affect the final decision. For this reason, the arguments put forward by the parties and the legal reasoning exposed by the judges may offer more insight than the decision itself.

Two things should be observed in this regard. Firstly, the above-mentioned proposals may give rise to criticism because they appear to be too wide or pointless through the lens of comparative law. Comparative legal research needs to elaborate a *tertium comparationis*, i.e. a common comparative denominator that depends on common elements which render judicial phenomena «meaningfully comparable», with the goal of achieving fruitful outcomes²⁵.

²³ Private claims are divided into two groups, according to whether the defendant is a corporation or an individual. See M. Wilensky, *Climate Change in the Courts: An Assessment of Non-U.S. Climate Litigation*, in *Duke Environmental Law & Policy Forum*, 26, 2015, 136 ff.

²⁴ See N.J. Ghaleigh, 'Six Honest Serving-Men': *Climate Change Litigation as Legal Mobilization and the Utility of Typologies*, in *Edinburgh School of Law Working Paper Series*, 8, 2010, 7 ff., at dx.doi.org/10.2139/ssrn.1574928.

²⁵ See E. Özücü, *Methodology of comparative law*, in J.M. Smits (ed.), *Elgar Encyclopedia of Comparative Law*, Cheltenham, 2006, 442. More in general, on the usefulness of comparative

Secondly, as shown in these pages, climate concerns generally fall under the umbrella of environmental issues and, in parallel, stable or safe climate is considered a vital element of the right to a healthy environment. Additionally, the inclusion of EIA litigation in the aforementioned classifications suggests that climate issues may be overlapped or blended with the environmental ones. However, it has been stressed that climate lawsuits are to be kept separate from environmental litigation which is mainly focused on the recognition of damages. Indeed, rules and legal protection addressed towards the environment and climate differ. This is so because the environment coincides with a specific physical, territorial context, which is delimited and circumscribed. Differently, climate is considered as a hyperobject, namely an object so massively distributed in time and space as to transcend localisation²⁶. Climate as a hyperobject means that it is an inter-spatial and inter-temporal condition which affects the biosphere and not just a specific context²⁷.

Breaches of international, supranational and national rules on greenhouse gas emission reductions in Europe affect both European citizens and individuals and communities all over the world. Not only: future generations are also jeopardised by global heating. Moreover, since climate change has and will have the biggest impact on the world's most vulnerable people, climate justice looks at this phenomenon through a human rights lens. As a commentator said, climate justice «insists on a shift from a discourse on greenhouse gases and melting ice caps into a civil rights movement with the people and communities most vulnerable to climate impacts at its heart»²⁸. Hence, how can these persons be protected? How can they demand the respect of State obligations and of their rights? And, turning to the topic of the classification of climate change case law related to the human rights discourse, how can one extrapolate the appropriate lawsuits among the high number of claims generally included in climate change litigation?

Bearing in mind these issues, a stricter categorisation has been proposed on the basis of the so-called «motion of justice». The aim of this classificatory

methodology to better reflect on certain phenomena, such as global warming, which impose a comparison with what is not known to our scientific knowledge, see R. Scarciglia, *Scienza della complessità e comparazione giuridica nell'età dell'asimmetria*, in *DPCE*, special edition, 2019, 701 ff. Considerations on the utility of comparative methodology to assess whether and to what extent national legislations are aligned to meet the objective of reducing gas emissions and other issues related to climate change are made by Mehling, who suggests several fields of action for comparative legal scholars, such as the role of the legal traditions in the framing of climate change in the legal systems and the influence of the forms of State and the forms of government on climate policy development. See M. Mehling, *The Comparative Law of Climate Change: A Research Agenda*, in *RECIEL*, 3, 2015, 351 ff.

²⁶ See T. Morton, *Introducing the idea of 'hyperobjects'. A new way of understanding climate change and other phenomena*, in *High Country News*, Jan. 19, 2015, at www.hcn.org/issues/47.1/introducing-the-idea-of-hyperobjects.

²⁷ Interview at Michele Carducci, published in "*Diritto al clima: i cittadini fanno causa allo Stato*", in *Terra Nuova*, Settembre 2019, at www.terranuova.it/Il-Mensile/Diritto-al-clima-i-cittadini-fanno-causa-allo-Stato.

²⁸ See Sustainable Development Goals, *Climate justice*, 2019, at www.un.org/sustainabledevelopment/blog/2019/05/climate-justice/.

proposal is to bring out climate justice-related grievances²⁹. A climate lawsuit of this type should be founded on: the climate debt among States or corporations; or the carbon budget, which is the budget indicating the amount of carbon dioxide that it can still emit in the atmosphere without exceeding the threshold of a 2°C increase in global temperature³⁰; or the intensity of carbon, which is the quantity of carbon emitted per unit of energy consumed per capita. In other words, climate litigation should refer only to judicial cases in which the courts are to decide the conduct of States or corporations with respect to the climate obligations assumed under the Paris Agreement or other international treaties, so as to offer a possibility of effective protection of the applicants' rights. This classification of climate case law would make it feasible to compare similar cases worldwide on the basis of their common elements³¹.

According to this last proposal, only few lawsuits can be considered examples of climate justice, such as the already mentioned case *Urgenda*, the case *Juliana* in the United States³² and the case *Carvalho* in the EU, this latter subject of examination in §§ 4 and 5. When the *Urgenda* and *Juliana* lawsuits were decided in first instance in 2015 and 2016 respectively, they led to discuss the launch of a «next generation» of climate litigation, modeled on these cases. The difference between the first and the second generation lies in the fact that the former is characterised by lawsuits on individual, emissions-intensive projects, which have been brought under environmental statutes; they deal with governmental decision-making where the climate change considerations were missing during the approval of these projects. Conversely, the second generation does not focus any longer on specific projects; these lawsuits want to hold governments directly responsible for the effects of their activities on climate change³³.

3. Climate change attribution science and its relevance in the *Urgenda* case

To appreciate the consequences of human-driven climate change at the judicial level, the law and science relationship needs to be properly understood. It has been noted that interdisciplinarity is quite often invoked in the fields of environmental

²⁹ On the «*istanza di giustizia*», see M. Carducci, *La ricerca dei caratteri differenziali della "giustizia climatica"*, in this Review, *DPCE online*, 2, 2020. Grievance has received little attention in the literature on climate change litigation, as stressed by Hilson, who suggests that it should be brought more squarely into law and social movement studies; C. Hilson, *Climate Change Litigation in the UK: An Explanatory Approach (or Bringing Grievance Back In)*, in F. Fracchia, M. Occhiena (eds), *Climate Change: la risposta del diritto*, Napoli, 2010, 421 ff.

³⁰ Moreover, the carbon budget should be measured on the basis of the consumption of the States and not on the production of carbon budget in the States. This is because there are countries, such as China, which have a high rate of gas emissions due to their productive activities carried out to satisfy the demand of Western countries.

³¹ See M. Carducci, *La ricerca dei caratteri differenziali della "giustizia climatica"*, cit.

³² Case *Juliana v United States*, 217 F. Supp. 3d 1224, 1248 (D. Or. 2016). The plaintiffs, a group of persons aged eight to nineteen, filed a lawsuit against the US government for contributing to climate change and failing to control emissions from fossil fuel development and use. For other details, see below, § 6.

³³ See J. Peel, H. Osofsky, A. Foerster, *A "Next Generation" of Climate Change Litigation?: an Australian Perspective*, in *Oñati Socio-legal Series*, 3, 2019, 281.

and climate change law, especially to promote joint research with other social scientists in order to evaluate the role of society and the socio-economic impacts of loss and damage or other climate change-related issues³⁴. It is also fundamental to spread the so-called Mother Earth approach (or ecosystem approach) in legal education, to encourage young generations of legal professionals to have a holistic understanding of the world. This should strengthen a vision of the law in harmony with the rules of nature³⁵. Besides this, interdisciplinarity may also play a role in conjunction with physical and natural science.

In observing the function performed by «science at the bar»³⁶, a first issue to be pointed out is that the need to understand the technical aspects of a controversy is particularly salient in environmental litigation³⁷. When scientific facts are inextricably linked to the *petitum*, some different approaches may be put into practice to assist judges in their activity, such as court-appointed experts, in-house experts, expert judges (who assess environmental controversies together with legally trained judges), up to the establishment of specialised environmental courts³⁸.

In the same manner, climate change law features a technical character, since it is focused on the target of limiting the amount of greenhouse gases in the atmosphere³⁹. Given that adjudication may also depend on the good use of scientific evidence in the courtroom, the science-law interface is a highly relevant profile in climate lawsuits as well. In very recent times, what leads to distinguish climate litigation from environmental litigation is that an overwhelming consensus has been reached around the science of climate change attribution, that is to say around the connection between a fact (the anthropocentric-induced

³⁴ Among many others, see M. Mehling, *op. cit.*, 347.

³⁵ According to art. 2 of the UN Convention of Biological Diversity (1992), ecosystem «means a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit». The Conference of the Parties, at its 5th Meeting held in 2000, endorsed the description of the ecosystem approach, that is «a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way». It is based on the application of appropriate scientific methodologies focused on levels of biological organisation which encompass the essential processes, functions and interactions among organisms and their environment. It recognizes that humans, with their cultural diversity, are an integral component of ecosystems. See at www.cbd.int/ecosystem/. See E. Macpherson, *A Mother Earth Approach in Legal Education*, 2019, 1 ff., in files.harmonywithnatureun.org/uploads/upload793.pdf.

³⁶ Quoting the title of a book by S. Jasanoff, *Science at the Bar. Law, Science, and Technology in America*, Cambridge-London, 1997, in which the author explores how science and law interact in lawsuits where scientific facts have emerged and are highly contested.

³⁷ See M. Eliantonio, *The Impact of EU Law on Access to Scientific Knowledge and the Standard of Review in National Environmental Litigation: A Story of Moving Targets and Vague Guidance*, in *European Energy and Environmental Law Rev.*, 2018, 115.

³⁸ In the European legal sphere, an interesting comparative study has been carried out by K. Sulyok, F. Bögös, T.M. Paloniitty, M. Eliantonio, *Summary Report: Analysis of the Questionnaire*, 2019 EUFJE Conference on “The Role of Science in Environmental Adjudication”, 2019, at www.eufje.org/index.php?option=com_content&view=article&id=39&Itemid=226&lang=en.

³⁹ On the dependence of climate change policies and rules on scientific knowledge, see M. Torre-Schaub, *La construcción del régimen jurídico del clima. Entre ciencia, derecho y política económica*, in *Rev. Catalana de Dret Ambiental*, 1, 2019, 1 ff.

climate change) and its consequences (extreme weather events that cause disasters and damages). Research has contributed to the improvement of studies that directly link exceptional phenomena to climate change, namely «the branch of science which seeks to isolate the effect of human influence on the climate and related earth systems», as attribution science has been defined⁴⁰.

Advancements in attribution science have allowed experts to clarify the extent to which human activities on the global climate system cause both slow onset changes with irreversible impact and extreme weather events, which become «not only preventable, but *demonstrably reasonably foreseeable*»⁴¹. In particular, scientists have made significant steps forward in a new field of climate change attribution research devoted to single extreme weather events⁴². This emerging sector has assumed growing importance in private and public litigation, both at national and international level.

Attribution science is fundamental for evaluating causation issues to determine liability in loss and damage legal controversies or, in other words, for evaluating the material causality of climate obligations. It is also useful to decide whether an issue is deemed justiciable or whether the claimants have standing to sue in the jurisdictions where the standing requirements are stringent. For example, in the widely quoted case *Massachusetts v EPA* of 2007, the US Supreme Court ruled that the plaintiffs had *locus standi* because scientific research supported the link between climate change and the inundation of state-owned and managed coastal land for which the State of Massachusetts has public trust responsibility⁴³.

The outcomes spread by the Intergovernmental Panel on Climate Change (IPCC) act as scientific assumptions within the UN climate law system, thanks to the periodic publication of the syntheses of existing literature on climate change. This intergovernmental organisation established in 1988 to assess the science related to climate change does not conduct research itself. The IPCC studies the most recent scientific information that becomes available around the world and publishes reports which the States have to resort to. It is also noteworthy that attribution research has served as a framing mechanism for international negotiations, i.e. for the draft of the Paris Agreement, and has helped policy-makers to assess the long-term impact and risks of climate change⁴⁴.

⁴⁰ See M. Burger, J. Wentz, R. Horton, *The Law and Science of Climate Change Attribution*, in *Columbia Journal of Environmental Law*, 1, 2020, 62. The Authors also stress that climate science plays a central role in policymaking and planning, in particular where decisions need to be made about how to allocate the costs of mitigating and adapting to climate change. Research contributions include developments in the statistical and probabilistic methods, able to quantify the human influence on climate and on specific weather events. In this topic, see also J. Setzer, L.C. Vanhala, *Climate change litigation: A review of research on courts and litigants in climate governance*, in *WIREs Climate Change*, 3, 2019, 9.

⁴¹ See S. Marjanac, L. Patton, *Extreme weather event attribution science and climate change litigation: an essential step in the causal chain?*, in *Journal of Energy & Natural Resources Law*, 3, 2018, 266.

⁴² See R. Mechler *et al.*, *Science for Loss and Damage. Findings and Propositions*, in R. Mechler *et al.* (eds), *Loss and Damage from Climate Change. Concepts, Methods and Policy Options*, Cham, 2019, 25.

⁴³ See J. Setzer, L.C. Vanhala, *op. cit.*, 9.

⁴⁴ See M. Burger, J. Wentz, R. Horton, *op. cit.*, 143. On the internal processes and ways of

The most important aspect is that, ratifying the UN accords on climate change, the States have recognised the legitimacy of the IPCC's findings. The EU has also acknowledged the IPCC as the definitive scientific body speaking on climate change and has incorporated the contents of its recent reports into policy-making⁴⁵. In sum, a general consensus has been created around the findings of climate change attribution science.

The consequence of all this is that the IPCC's reports play a fundamental role in the climate policy arena and in the courtrooms. As argued by a prominent legal scholar, scientific facts have taken on the status of legal sources, since the considerations on climate change and its direct impact are reserved to science exclusively⁴⁶. In other words, there exists a «reservation to science» as a limit to political, legislative and interpretative discretion in climate issues⁴⁷. A clause concerning the «incorporation by reference» to science by the UNFCCC from which to infer the facts according to the legal provisions is also foreseen. These science-related clauses are inferrable by the UNFCCC's first three articles:

- Art. 1 UNFCCC, entitled «Definition», relies on science to establish the meaning of several concepts, such as the adverse effects of climate change, climate change, climate systems, emissions, greenhouse gases, etc.;

- Art. 2 UNFCCC, entitled «Objective», states that «The ultimate objective of this Convention [...] is to achieve [...] stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change [...]». This goal has to be in line with the IPCC's findings, which clarify the amount of reduction and the time limit related to the fixed targets;

- Art. 3 UNFCCC, entitled «Principles», affirms in its para. 3 that «The Parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost». This has to be considered a self-executing and deontological provision, since it indicates the method and the objectives to be pursued in the climate sector, which are based on the reservation to science and on the incorporation by reference to science by the UNFCCC⁴⁸.

working of the IPCC, see D. French, B. Pontin, *The science of climate change: a legal perspective on the IPCC*, in D. Farber, M. Peeters (eds), *Climate change law*, Cheltenham, 2016, 9 ff.

⁴⁵ The Communication from the Commission, *A Clean Planet for all - A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy*, COM (2018) 773 final, 28.11.2018, extensively makes references to the IPCC's Special Report on the impacts of global warming and recommends a EU policy goal of emissions neutrality by 2050.

⁴⁶ See M. Carducci, *La ricerca dei caratteri differenziali della "giustizia climatica"*, cit.

⁴⁷ The expression reservation to science echoes the concept of reservation to legislation (or legislative reservation).

⁴⁸ See M. Carducci, *La ricerca dei caratteri differenziali della "giustizia climatica"*, cit.

In consideration of the foregoing, it seems clear that policy-makers and judges have to found their decisions on science when taking into account climate change issues. The fundamental profile to illustrate to a court when claiming to take adequate measures should be anchored to these UNFCCC provisions, because its clauses are the constitutive sources of the legal relation formed by human activity and climate change⁴⁹.

The elements related to scientific facts assume a normative character that directs the interpretative activity of the judges: the greater the consensus on scientific facts, the narrower the judicial discretion. Scientific climate sources are to be considered as parameters to which courts have to refer to understand when and how climate change is altered by human activities⁵⁰. Hence, no wonder if the plaintiffs turn to scientific facts to argue a strict link between a particular source of greenhouse gas emissions and an extreme weather event and correlated harms⁵¹. The general consensus on attribution science allows the applicants to ask for a limitation of the volume of emissions or for the invalidation of rules that undermine the purpose of reducing emissions as a consequence of their fundamental rights, for example the rights to life, health, and respect for private and family life.

Thanks to the robust scientific consensus on the anthropogenic roots of climate change, in the *Urgenda* case it has been possible for the Supreme Court to affirm that the government is not meeting its obligations to protect the residents from dangerous climate change and has violated the general duty of care because its greenhouse gas reduction goal is not sufficiently ambitious. The IPCC's assessments are at the basis of the incontrovertible evidence of climate change as a «real and immediate risk», in the sense that the risk does not have to materialise in the short term but it is directly threatening the persons involved⁵². In this case, attribution science has played the function of the parameter of the objective good faith of the State, by furnishing evidence of the harms incurred by citizens as a result of climate change. It has also been used to provide information on the emission reductions necessary to meet the 2°C target⁵³.

Specifically, the Supreme Court's reasoning begins by introducing the facts and, first of all, the most relevant ones, namely climate change and its

⁴⁹ See M. Carducci, *La ricerca dei caratteri differenziali della "giustizia climatica"*, cit.

⁵⁰ On the reservation to science and science as a interposed parameter of constitutionality in Italy with specific reference to the medical field, see C. Casonato, *La scienza come parametro interposto di costituzionalità*, in *Rivista AIC*, 2, 2016, 6 ff.

⁵¹ See J. Setzer, R. Byrnes, *Global trends in climate change litigation: 2019 snapshot*, London, 2019, 1, at www.lse.ac.uk/GranthamInstitute/publication/global-trends-in-climate-change-litigation-2019-snapshot/.

⁵² For the analysis of the case *Urgenda Foundation v the State of the Netherlands* decided by the Supreme Court in December 2019, see A. Nollkaemper, L. Burgers, *A New Classic in Climate Change Litigation: The Dutch Supreme Court Decision in the Urgenda Case*, in *EJIL: Talk!*, 2020, at www.ejiltalk.org/a-new-classic-in-climate-change-litigation-the-dutch-supreme-court-decision-in-the-urgenda-case/; M.F. Cavalcanti, M.J. Terstegge, *The Urgenda Case: The Dutch Path towards a new Climate Constitutionalism*, in this Review, *DPCE online*, 2, 2020.

⁵³ See M. Carducci, *La ricerca dei caratteri differenziali della "giustizia climatica"*, cit.; M. Burger, J. Wentz, R. Horton, *op. cit.*, 186.

consequences. It proceeds affirming that there has long been a consensus in climate science and in the international community that the Earth's average temperature may not rise by more than 2°C compared to the pre-industrial era. Then, it considers of particular importance some legal and extra-legal sources in order to infer the percentage of emission reduction in the next decades, i.e. the IPCC's fourth and fifth reports, the UNFCCC, the Paris Agreement, the climate conferences, the UN Environment Programme's reports, and the EU climate policy.

In continuing its reasoning, the Court wonders what the obligation on part of the State to take adequate measures to reduce emissions means in concrete terms, stressing that the State rightly argues that the 25-40% target indicated in the IPCC's fourth report is not a binding rule. However, due to the high degree of international consensus regarding the 25-40% target, the Court affirms that the Netherlands has an individual responsibility to comply with its international obligation. In giving substance to the positive obligation of the duty of care under Articles 2 and 8 ECHR⁵⁴, the Netherlands has to take into account supported scientific insights and internationally accepted standards. Then, the Court highlights the urgent necessity to reduce greenhouse gas emissions on the basis of the IPCC's findings, recognising that the State has not provided any evidence into which measures it intends to take in the coming years. As a consequence, the order which the District Court issued to the State and which was confirmed by the Court of Appeal, requiring the State to increase its emissions reduction target by at least 25% (instead of 23%) by 2020⁵⁵ according to the IPCC's recommendations for developed countries, is allowed to stand.

In essence, when can a climate tort committed by the State be judicially recognised? When the State decides to ignore two aspects. Firstly, that climate change is a notorious fact unquestionable by the courts. As illustrated, it is an anthropogenic-induced phenomenon authoritatively attested by attribution science. Secondly, that the goal of limiting the temperature increase is a legal fact, accepted by States through the ratification of international accords. Therefore, each State has an obligation to achieve the results precisely indicated in quantitative terms (1,5°/2°C) and time limits (before 2030).

Having clarified these aspects, it follows that climate litigation is to guarantee the fulfilment of international obligations. These are further specified through scientific facts to which the accords make reference and on which the States agree, contributing to form a general consensus on them⁵⁶. These assumptions should avoid the risk that courts decline to judge a climate lawsuit invoking the principle of separation of powers, as has already occurred in some

⁵⁴ Art. 2 ECHR regards the right to life, and 8 ECHR regards the right to respect for private and family life.

⁵⁵ In the EU, the Commission has determined a binding target to cut emissions by at least 40% below 1990 levels by 2030. Currently, the Commission aims to revise the EU's 2030 emission reduction target; its intention is to propose a target by at least 50%. See ec.europa.eu/clima/policies/strategies/2030_en.

⁵⁶ See M. Carducci, *Il clima tra diritti e democrazia*, 2019, available at www.donnescienza.it/convegno-donne-e-scienza-2019-lecce-14-16-novembre/.

countries⁵⁷. The rights-based argument also serves to attract a suit in the field of law instead of that of politics, requiring courts to decide to.

4. Climate change litigation in the European Union and the *Carvalho* case

The EU and its member States coordinate their policies and set common gas emission reduction targets on the basis of the EU legal framework and international commitments. To date, almost all the cases that are generally considered climate change lawsuits have involved the implementation of the Emission Trading System (ETS).

The ETS is a market instrument, the functioning of which is determined by the maintenance of cost-effective and economically efficient conditions and the safeguarding of economic development, employment and competition in the EU. This mechanism has generated a price for greenhouse gas emissions through its cap-and-trade system. It entails that operators of power and industrial installations in the ETS sector are subject to a limit on emissions and have to acquire and retire emission permits for each tonne of greenhouse gases emitted during the production process⁵⁸. The non-ETS sectors (such as transport, waste, agriculture, buildings) are regulated by the Effort Sharing Decision (ESD) that sets differentiated national greenhouse gas emission targets each year, reflecting the principle of fairness and burden-sharing considerations in EU climate policy.

The ETS has given rise to several tens of judicial controversies, especially dealing with planning applications or allocation of emissions allowances. It has been noted that the types of litigation that the ETS is principally exposed to regard the clarification of the scope of the Commission's discretion concerning the review of the member States' emissions allowance caps, the so-called National Allocation Plans (NAPs), and also issues such as the quantity of allowances allocated to specific member States or delays in the Commission's communication of its decisions.

To a great extent, these claims have been brought forward by industries and have been rejected by the CJEU due to the lack of direct and individual concern⁵⁹. This is an essential requirement to challenge directly an act through action for

⁵⁷ For example, in the United States, the United Kingdom and in Canada, courts declined to recognise issues arising from climate change on the basis of the principle of separation of powers. See E.C. Fisher, E.A.K. Scotford, E. Barritt, *The Legally Disruptive Nature of Climate Change*, in *Modern Law Review*, 2, 2017, 183. On the contrary, the courts involved in the case *Urgenda* rejected the State argument that the order to reduce greenhouse gas emissions violates the separation of powers. The Supreme Court highlighted that the order does not interfere in the political decision-making process, given that only the legislator has the power to determine the content of the statutory provision to enact.

⁵⁸ See J. Delbeke, P. Vis, *EU climate leadership in a rapidly changing world*, in *Iid.* (eds), *op. cit.*, 18 ff.; and D. Meadows, Y. Slingenberg, P. Zapfel, *EU ETS: Pricing carbon to drive cost-effective reductions across Europe*, in J. Delbeke, P. Vis (eds), *op. cit.*, 26 ff.

⁵⁹ See J. van Zeben, *Implementation challenges for emission trading schemes: the role of litigation*, in S.E. Weishaar (ed.), *Research Handbook on Emissions Trading*, Cheltenham, 2016, 245 ff.; S. Bogojević, *EU climate change litigation: all quiet on the Luxembourgian front?*, in G. Van Calster, W. Vanderberghe, L. Reins (eds), *Research Handbook on Climate Change Mitigation Law*, Cheltenham, 2015, 543 ff.

annulment under Art. 263(4) TFEU, which considers natural and legal persons as non-privileged applicants who may have standing only under certain conditions⁶⁰. Nevertheless, the claims on part of industries have continued. The constant flux of lawsuits has been interpreted as a tool to protest against EU institutions for the ETS mechanism and the recent abolition of the NAPs has been considered an indirect effect of this litigation strategy⁶¹.

Natural persons and NGOs also sought to challenge EU institutions before the CJEU in the recent case *Peter Sabo and Others v European Parliament and Council of the European Union*, dubbed the *EU Biomass* case⁶². In March 2019, plaintiffs from Estonia, Ireland, France, Romania, Slovakia, and the United States filed a complaint under Art. 263(4) TFEU arguing that the 2018 Renewable Energy Directive (RED II) would devastate forests and increase emissions by promoting burning forest wood as renewable and carbon neutral resource. The claim referred to scientific evidence to demonstrate that wood-burning power plants pump more carbon into the atmosphere per unit of energy than coal plants. In the opinion of the plaintiffs, the EU policy did not take into account the emissions from burning biomass fuels for heat or energy, making it appear that they are more climate-friendly than fossil fuels. Hence, the applicants contended that the inclusion of forest biomass as a renewable energy source within the RED II violates Art. 191 TFEU. Moreover, the claimants submitted that the RED II is incompatible with the Charter obligations, since they had experienced harms to their health, livelihoods, communities and cultural traditions as a result of logging, wood pellet manufacturing, and the production of biomass energy. For these reasons, they sought an annulment of the RED II's provisions relating to forest biomass, leaving in force the other parts of the Directive. The case was rejected for lack of standing in May 2020.

A further recent lawsuit filed by individuals has challenged the legitimacy of EU climate legislation for having breached higher-ranking law, which includes human rights and international law. Unlike the previous legal disputes, the *Carvalho* case falls into the strict classification of climate change litigation last illustrated in § 2. In 2018, the alleged invalidity of three EU acts implementing the 2030 emissions reduction target – the Emissions Trading Directive, the Climate Action Regulation, and the Land Use, Land-Use Change and Forestry Regulation⁶³ – was brought before the CJEU. The applicants are ten families from

⁶⁰ Art. 263(4) TFEU states that: «Any natural or legal person may, under the conditions laid down in the first and second paragraphs, institute proceedings against an act addressed to that person or which is of direct and individual concern to them, and against a regulatory act which is of direct concern to them and does not entail implementing measures».

⁶¹ See J. van Zeben, *op. cit.*, 250.

⁶² Case T-141/19. The application is available at eubiomasscase.org/the-case/.

⁶³ The contested acts, adopted on the basis of Art. 192(1) TFEU, are: Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814; Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, and amending Regulation (EU) No 525/2013 and Decision No 529/2013/EU; Regulation (EU) 2018/842

Portugal, Germany, France, Italy, Romania and even from Kenya and Fiji given that non-EU citizens are affected by emissions originated in the EU and authorised by EU acts as well; among them is also included the Swedish association Sáminuorra, which represents young indigenous Saami.

The applicants sustain that the EU's target of reducing emissions by 2030 by at least 40% compared to 1990 levels is insufficient in order to prevent impacts upon their livelihoods caused by climate change. Hence, they allege that the target set by the contested acts should be nullified, as they are in contrast with the Charter, the TFEU, the UNFCCC, the Paris Agreement, and other international conventions. Additionally, with the goal of preventing a legislative vacuum in case of annulment, on the basis of Art. 264(2) TFEU the claimants request that the invalid provisions continue to apply until their revision is made in conformity with the higher-ranking law. Furthermore, in an action for damages under Art. 340 TFEU, they seek compensation for their alleged individual losses in small-scale agricultural and tourism business in the form of an injunction ordering the Parliament and the Council to adopt measures requiring emission reduction by 2030 by at least 50% to 60%. Unlike the *Urgenda* case, where the plaintiffs invoked a general interest and were not damaged directly, in this lawsuit the complainants are indeed experiencing the negative effects generated by human-induced climate change.

1436

Regarding the factual context of the case, in support of their claims drawn from scientific and economic studies, mainly from the IPCC's reports, the applicants present a significant volume of evidence. They contend that their rights have been violated or are at risk of violation due to climate change and its effects, which take the form of megafires, higher temperatures, lower rainfall and drought conditions, retreat of snow and ice, glacial melting, rising sea levels and storm surges and associated erosion, severe cyclones, and loss of food. They emphasise that «Scientifically, this statement necessitates what is called “detection and attribution” of the “human climate signal”. The IPCC has defined this concept since its 3rd Assessment Report (2001). It essentially allows climate scientists to link an observed phenomenon to man-made greenhouse gas emissions and the resulting increased radiative forcing. [...] A range of different methodological approaches are applied for detection and attribution, including statistical approaches based on observed changes, distinct climate modelling studies, as well as hybrid approaches». The applicants assume that the defendants do not challenge these findings and facts since the EU has accepted the essential connection between the emission of greenhouse gases, increases in temperature, and dangerous climate change through its participation in international agreements and its legislative acts.

An interesting argument here exposed regards the issue of calculating the emissions budget. As has been stressed, it is «a contentious and relatively

of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

unmapped area of law that implicates core questions of historic and current responsibility, social and economic capability, and justice and equity»⁶⁴. In order to gather scientific advice, the plaintiffs invite the Court to consider the possibility to commission an expert's report in relation with the damages caused by climate change to the applicants, the total budget of emissions available for use by the EU, or the measures that the EU could feasibly adopt to reduce the greenhouse gas emissions. Regarding this option, it has been noted that in EU courts the scientific expertise has an extremely limited application since the facts are mostly undisputed, resulting from evidence provided by the member State involved⁶⁵.

In any case, the applicants argue that the Commission failed to identify legitimate concerns (such as preserving employment) when the range of reduction target to be adopted in the three contested acts was chosen. The 40% reduction target was corroborated by the Impact Assessment of the Commission of January 2014, in which different scenarios were illustrated. The scenarios based on emission reductions below 35% and above 45% were discarded at an early stage, without taking into account a range of evidence as to the feasibility of introducing deeper reductions. According to the plaintiffs' view, deeper reductions would have been preferred ultimately if the Commission wanted to consider more ambitious targets. Given that the claimants sustain that the emissions budget has not been properly calculated, they suggest methods for determining it in order to ensure that the EU legal framework complies with international agreements.

With reference to the alleged violation of fundamental rights, the Charter provisions invoked by the plaintiffs include the right to life (Art. 2), to health (Art. 3), to engage in work and to pursue a freely chosen or accepted occupation (Art. 15), to own, use, dispose of and bequeath lawfully acquired possessions (Art. 17), to equal treatment of young people and people living in developing countries (Art. 20), and to the welfare of children (Art. 24). In this regard, it seems interesting to note that, according to the claimants, the recognition of the right to a healthy environment at EU level might help them but, since EU primary law does not contain such right⁶⁶, they uphold that it is in any event not essential. This is because the specific rights they refer to can be interpreted as encompassing those climate conditions that are necessary for the exercise of a right⁶⁷. Moreover, it might be easier to address climate change concerns through well-founded rights

⁶⁴ See T. ETTY *et al.*, *The End of a Decade and the Dawn of a Climate Resistance*, in *Transnational Environmental Law*, 1, 2020, 6.

⁶⁵ However, scientific evidence can become relevant in the hypothesis of a manifest error of appreciation. See C. Sobotta, *The Court of Justice of the European Union*, 2019 EUFJE Conference on "The Role of Science in Environmental Adjudication", 2019, 2 f., at www.eufje.org/images/docConf/hel2019/EUFJE_Questionnaire_2019_CJEU_Sobotta.pdf.

⁶⁶ As indicated in § 1, Art. 37 Charter provides for environmental protection conceived as a policy objective. The EU does not recognise the right to a healthy environment, as the environment is a collective good. Using the language of rights would be misleading since human rights are designed to protect the members of a political community individually.

⁶⁷ See G. Winter, Armando Carvalho and Others *v.* EU: *Invoking Human Rights and the Paris Agreement for Better Climate Protection Legislation*, in *Transnational Environmental Law*, 1, 2020, 143.

than through the not yet well-defined right to a healthy environment at international level.

In May 2019, the General Court (Second Chamber) dismissed as inadmissible the lawsuit for procedural grounds, because the plaintiffs lacked standing for failure to show a direct and individual concern. The Court stated that they are not sufficiently or directly affected by the EU acts to challenge them, since they are not identified by the acts as addressees thereof. In particular, the judges wrote that «It is true that every individual is likely to be affected one way or another by climate change [...] However, the fact that the effects of climate change may be different for one person than they are for another does not mean that, for that reason, there exists standing to bring an action against a measure of general application» (para. 50). The Court also rejected the plaintiffs' argument that the interpretation of the concept of individual concern is not compatible with the fundamental right to effective judicial protection under Art. 47 Charter.

5. The issue of legal standing and the appeal in the *Carvalho* case

In a global perspective, the issue of access to judicial remedies granted to NGOs and natural persons is one of the most problematic aspects in environmental and climate matters. Since in these cases the interests are diffused, fragmented, and collective, thus pertaining to everyone and no one at the same time, if an action group or a person is requested to demonstrate having a direct and individual concern in a lawsuit, very frequently this is equivalent to impeding access to courts. Bearing in mind this problem as well, the 1998 UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (the so-called Aarhus Convention) has been designed to empower citizens and civil society organisations, in the belief that these three pillars represent an expansive notion of democracy. As to the standing in courts, Art. 9(3) of the Convention affirms that «each Party shall ensure that [...] members of the public have access to administrative or judicial procedures to challenge acts and omissions by private persons and public authorities which contravene provisions of its national law relating to the environment».

Since the EU concluded this multilateral environmental agreement through Decision 2005/370 and in 2006 adopted the so-called Aarhus Regulation to implement its obligations by laying down rules to apply to EU institutions and bodies⁶⁸, one wonders to what extent the EU conforms to the international standard. It is well known that the legality of an act can be challenged directly before the CJEU through action for annulment under Art. 263 TFEU or indirectly before national judiciary through the preliminary reference procedure according to Art. 267 TFEU. Moreover, the Aarhus Regulation provides that environmental NGOs may file a request for the internal review of administrative acts of individual

⁶⁸ Regulation (EC) No 1367/2006 of the European Parliament and of the Council of 6 September 2006 on the application of the provisions of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters to Community institutions and bodies.

scope under environmental law adopted by an EU institution or body. This mechanism is meant to facilitate qualified entities' access to justice who would not have it on the basis of Art. 263(4) TFEU. Despite that, natural and legal persons seeking to challenge directly the legality of EU environmental or climate acts through the remedies currently available still encounter significant procedural obstacles. Many scholars deem that the CJEU's test adopted on standing is too restrictive and stress that it is even stricter than in any EU member State⁶⁹. It should be said that even member States are not particularly inclined to broaden access to judicial remedies to the public. Resistance in this context is made evident by the fact that the EU has never been able to adopt a directive on access to justice in environmental matters for the oppositions encountered in the consultation phase⁷⁰.

The Court of Justice clarified the conditions for demonstrating an individual concern in the case *Plaumann & Co. v Commission of the European Economic Community* (case-25/62) issued in 1963. Since then, the so-called Plaumann formula has never been softened in the environmental sector⁷¹, requiring that «Persons other than those to whom a decision is addressed may only claim to be individually concerned if that decision affects them by reason of certain attributes which are peculiar to them or by reason of circumstances in which they are differentiated from all other persons and by virtue of these factors distinguishes them individually just as in the case of the person addressed». However, it has been noted that several EU environmental measures are addressed to protect interests of a diffused nature and hence do not confer any rights on individuals, thus leaving uncovered certain sectors by judicial remedies⁷².

The consequence of this criterion for substantiating an individual interest is that the EU judicial system is not fitted with a remedy to easily allow persons and NGOs to challenge the legality of EU environmental and climate acts directly. The CJEU justifies its approach asserting that «it is for the national court, in order to ensure effective judicial protection in the fields covered by EU environmental law, to interpret its national law in a way which, to the fullest extent possible, is consistent with the objectives laid down in Article 9(3) of the Aarhus Convention»⁷³. From this, one understands that the CJEU's objective is that of

⁶⁹ Among others, see J. Ebbesson, *Comparative Introduction*, in Id. (ed.), *Access to Justice in Environmental Matters in the EU*, The Hague, 2002, 27; R. Mastroianni, *L'effettività della tutela giurisdizionale alla prova della Carta dei diritti fondamentali*, in A.A.V.V., *Liber Amicorum in onore di Antonio Tizzano. De la Cour CECA à la Cour de l'Union: le long parcours de la justice européenne*, Torino, 2018, 594 ff.

⁷⁰ See N. De Dominicis, *L'accesso alla giustizia in materia ambientale. Profili di diritto europeo*, Padova, 2016, 44, 70 ff.

⁷¹ Conversely, the Plaumann formula has been softened in other matters, such as competition law.

⁷² See M. Eliantonio, *The role of NGOs in environmental implementation conflicts: 'stuck in the middle' between infringement proceedings and preliminary rulings?*, in *Journal of European Integration*, 6, 2018, 758.

⁷³ See the so-called *Brown bear case*, *Lesoochránárske Zoskupenie VLK v Ministerstvo životného prostredia Slovenskej republiky*, 8 March 2011, case C-240/09, § 50.

reducing any possible intervention of individuals, advocating the principle of judicial subsidiarity and the preliminary reference procedure.

As a result of this state of affairs, on a number of occasions the Aarhus Compliance Committee, i.e. the mechanism put in place to review the Parties' conformity with the UNECE Convention, has shared the concern expressed by various commentators with regard to the conditions for standing of natural and legal persons in the EU. In 2011, the Committee affirmed that the CJEU's interpretation on individual concern was too strict to meet the criteria of the Convention, recommending that EU institutions take steps to overcome the shortcomings reflected in the case law in providing the public concerned with access to justice in environmental matters⁷⁴.

The EU replied that the Parties to the Convention have a margin of appreciation as to how they implement Art. 9(3) and that the EU institutions exercise this margin according to the Aarhus Regulation. Subsequently, in 2017, the Committee reasserted its considerations after having analysed the case law issued in the years that had passed since its first recommendation⁷⁵. A few months later, the EU Council of Ministers adopted its decision on the EU's position to hold at the sixth session of the Meeting of the Parties to the Aarhus Convention. It refused to endorse the original proposal of the Commission, according to which the findings of the Aarhus Committee were to be rejected, and decided to take note of them. However, in respect of the separation of powers, it did not give instructions to the CJEU to open the door to individual claims⁷⁶.

In March 2020 the EU Commission undertook a step to amend the Aarhus Regulation with the objective of improving access to judicial remedies at the EU and national levels. The Roadmap follows the requests made by the Council and the Parliament to ensure EU compliance with the UNECE Convention as well as the European Green Deal Communication of December 2019 in which the Commission committed to considering this issue⁷⁷. From the reading of the few lines of the Roadmap available so far, it seems there is still room for improvement. In fact, a revision of the Regulation to broaden the scope of the review mechanism is suggested. This revision should encompass non-legislative regulatory acts (in addition to administrative acts of individual scope) and include provisions of laws

⁷⁴ See Findings and recommendations of the Compliance Committee with regard to communication ACCC/C/2008/32 (Part I) concerning compliance by the European Union, adopted on 14 April 2011, at www.unece.org/fileadmin/DAM/env/pp/compliance/C2008-32/Findings/C32Findings27April2011.

⁷⁵ See Findings and recommendations of the Compliance Committee with regard to communication ACCC/C/2008/32 (Part II) concerning compliance by the European Union, adopted on 17 March 2017, at www.unece.org/fileadmin/DAM/env/pp/compliance/C2008-32/Findings/C32_EU_Findings_as_adopted_advance_unedited_version.

⁷⁶ See N. Notaro, M. Pagano, *The Interplay of International and EU Environmental Law*, in I. Govaere, S. Garben (eds), *The Interface Between EU and International Law. Contemporary Reflections*, Oxford, 174 f.

⁷⁷ A study has been commissioned in 2019 to explore ways to comply with the Aarhus Convention. See Study on EU implementation of the Aarhus Convention in the area of access to justice in environmental matters, Final report September 2019, is available at ec.europa.eu/environment/aarhus/pdf/Final_study_EU_implementation_environmental_matters_2019.pdf.

relating to the environment (instead of the current formulation, according to which the Regulation covers acts «under» environmental law)⁷⁸.

During this lapse of time, the General Court's order in the case *Carvalho* has been appealed. The appellants have requested the European Court of Justice to set aside the order, to declare that their application is admissible, and to refer the case back to the General Court for judgement in the substance of the matter. They sustain that the General Court erred in finding that the claimants do not satisfy the principles stated in the Plaumann test. Alternatively, they allege that the Court erred in not adapting the test in light of the compelling challenge of climate change. Other two grounds make reference to the denial to the Sáminuorra association to have standing and to the inadmissibility of non-contractual liability⁷⁹. This appeal provides interesting theoretical insights on the issue of *locus standi* referred to associations and non-EU citizens.

As for associations and environmental NGOs, their role in the EU legal order is quite complex for the obstacles they face in the implementation of disputes for environmental or climate change infringements, being forced to rely on national authorities only. It is settled case law that actions for annulment brought by associations have been held to be admissible in at least three kinds of circumstances: firstly, when a legal provision expressly grants a series of procedural powers to trade associations; secondly, when the association represents the interests of its members, who would themselves be entitled to bring proceedings; and, thirdly, when the association is distinguished individually because its own interests as an association are affected, in particular because its negotiating position has been affected by the measure in respect of whose annulment is sought⁸⁰. Several commentators highlight that this scenario leads to undermine the content of Art. 47 Charter devoted to the right to an effective remedy before a tribunal.

In the *Carvalho* case, the appellants argue that the members of the Sáminuorra association are all components of families who herd reindeers and hence are individually concerned. Alternatively, they stress that the association itself is indeed concerned since it represents a common good of its members, i.e. the traditional right of the Saami people to make use of public and private grazing lands for their reindeer herds. Where a community shares resources and income, it may be alien for its members to act as individuals. Therefore, this association would be different from the familiar type of trade association made up of the sum of individual member interests. Sáminuorra represents the collective good of its components which is different from (and more valuable than) the sum of individual interests. Insisting that the criterion of individual concern needs to be proven for each of the members of such an association would impede access to justice if

⁷⁸ The Roadmap is available at ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12165-Access-to-Justice-in-Environmental-matters.

⁷⁹ Case C-565/19P. The appeal submitted to the European Court of Justice is available at peoplesclimatecase.caneurope.org/documents/.

⁸⁰ See Court of First Instance (Third Chamber) of 23 November 1999, *Unión de Pequeños Agricultores (UPA) v Council of the European Union*, case T-173/98, para. 47.

common goods were endangered. For this reason, the claimants suggest that the Court should consider this as a fourth type of action, namely the action of a community defending a common good⁸¹.

As for non-EU citizens, their standing would be justified by the fact that the Charter opens to relevant rights irrespective of personal or geographical scope and that this is a common practice in domestic judiciaries when environmental issues are at stake. Moreover, at international level, human rights have been interpreted adopting a transnational perspective, so that individuals living outside a territory may bring a claim within the jurisdiction where an environmental harm has originated. Furthermore, in the EU, companies situated in third countries have been allowed to rely on freedom of trade, fundamental rights, and the protection of legitimate expectations⁸². In this case, families living in developing countries such as Kenya and Fiji would be affected by the gas emissions from the EU member States. Their involvement is part of a tendency to challenge laws highlighting the impact of climate change towards the most vulnerable groups.

We will have to wait a few more months to know the decision of the European Court of Justice on this appeal.

6. Towards the judicial recognition of the right to live in a stable climate system in the European legal space?

1442

Regardless of whether the *Carvalho* case is declared admissible by the European Court of Justice, it raises a number of speculations on the potential of litigation strategy to recognise EU and member States' climate liability and to contribute to strengthening measures to tackle the climate crisis in Europe.

Although there can be a common goal shared by NGOs and individuals from different countries to sue governments claiming the respect of international agreements imposing the reduction of greenhouse gas emissions, each lawsuit must be examined following the rules and the legal culture of the State where the claim is filed. In this vein, two factors have contributed to the *Urgenda* primacy as a ground-breaking judicial precedent: the possibility to launch class actions on part of interest groups, and a judiciary not willing to lower the level of protection of fundamental rights in such a highly impactful issue with the pretext of the separation of powers. The human rights discourse seems essential in this type of lawsuit as it pushes away from the courtroom any attempt to attract the matter within the political arena.

Moreover, the science of climate change attribution may not be put in question by the defendants in those countries where the UNFCCC and its correlated agreements have to be complied with. It follows that a sufficient causal link can be assumed to exist between the emissions budget of a certain country and the effects produced by climate change in order to recognise State liability. State obligation to face climate change can be weighed through the lens of human

⁸¹ See the appeal, *op. cit.*, 18 ff.; G. Winter, *op. cit.*, 160.

⁸² See G. Winter, *op. cit.*, 142.

rights standards and the general consensus on scientific knowledge, in which the latter provides judges with evidence indispensable to clarify the factual background of the case, to establish the causal link, and to reach a decision.

Ensuring the widest possible access to justice is therefore the major guarantee for claimants to be heard by judges. We live in an epoch in which the adverse effects of increasing levels of greenhouse gas emissions are expected to intensify and too many governments are still inactive in the matter. In the meantime, current legislations may bar natural and legal persons from suing for climate change-related injuries due to restrictions on standing. In this context, a very urgent issue to tackle on part of EU and national institutions should be that of granting effective access to judicial remedies in climate (and also environmental) matters.

By extending the perspective at global level, several arguments in support of States' climate liability have been put forward, such as the principle of due diligence, the public trust doctrine, the duty of care, the human rights discourse, the rights of nature, the responsibility towards future generations. Climate liability itself is an evolving concept, subject to further jurisprudential guidelines. It may also refer to private companies and be extended so as to affirm an obligation to protect vulnerable peoples or specific ecosystems, such as the Amazon rainforest⁸³.

The novelty represented by climate change litigation in the constitutional field has and probably will have an interesting ripple effect on the evolution of legal concepts and rights. As has been stressed in relation to the duty of care, «L'affaire Urgenda par exemple, renouvelle la notion du duty of care, jusqu'ici seulement utilisée dans le cadre du droit international – pour désigner l'obligation d'un État de ne pas porter préjudice à un autre État – en lui donnant des contours très précis, et en l'inscrivant désormais dans le droit du changement climatique en tant qu'obligation à la charge de l'État vis-à-vis de ses citoyens. La redéfinition de cette notion, de plus en plus mobilisée dans des affaires concernant la santé et l'environnement, permet de confirmer la responsabilité publique et surtout l'obligation d'agir de l'État face à une menace documentée, bien qu'incertaine»⁸⁴.

Just as the *Urgenda* claim has been a model for the plaintiffs in the *Carvalho* case and for the lawyers of other lawsuits actually pending in front of domestic jurisdictions, as in France, Ireland and Belgium, so could the reasoning in the *Urgenda* decision be a source of inspiration for foreign courts. It has already happened with an order of the Australian Land and Environment Court that makes references to the decision of The Hague Court of Appeal⁸⁵.

⁸³ See M. Torre-Schaub (dir.), *Les dynamiques du contentieux climatique. Usages et mobilisations du droit pour la cause climatique*, Rapport final de recherche, 2019, 72 and 75, at www.gip-recherche-justice.fr/publication/les-dynamiques-du-contentieux-climatique-usages-et-mobilisation-du-droit-face-a-la-cause-climatique-2/.

⁸⁴ See M. Torre-Schaub (dir.), *op. cit.*, 93.

⁸⁵ See the case *Gloucester Resources Limited v Minister for Planning*, [2019] NSWLEC 7.

Even the engagement of the ECtHR cannot be ruled out as a possibility⁸⁶. So far, issues regarding climate change-related cases have never been tackled by this authoritative European Court, but it already has an established practice of interpreting a number of substantive human rights as incorporating environmental considerations, including the right to life, the right to a fair trial and the right to respect for family and private life, resulting from environmental hazards, such as air pollution (this is because any attempt to draft an additional protocol to the ECHR concerning the autonomous right to a healthy environment has always failed).

In that event, could the Court of Strasbourg be more activist than that of Luxembourg? It is worth bearing in mind that the ECtHR is very cautious in environmental matters⁸⁷. This notwithstanding, one may wonder whether there will be room for the ECtHR to recognise a sufficient common consensus of the party States on a real and imminent threat produced by climate change, and to condemn those that have not prevented the infringement of fundamental rights. And also: how would it be possible for the party States to justify their inaction or to challenge the IPCC's findings after having accepted the existence of a direct link between the emission of greenhouse gases and climate change? In this hypothesis, a general consensus should be recognised on the basis of the IPCC's reports, thus reducing the margin of appreciation, which is the space of manoeuvre that the Court grants to national authorities. Consequently, it could be very difficult for a State to exonerate itself for not having taken adequate measures, leading to a possible decision in favour of the applicants.

Another issue that is emerging in the comparative panorama regards the notion of the right to live in a stable climate system. It has to be stressed that neither the Supreme Court of the Netherlands in the *Urgenda* case nor the *Carvalho* application in front of the CJEU make explicit reference to it. Instead, it was previously invoked by the plaintiffs in the US *Juliana* case, who alleged that the right to a climate system capable of sustaining human life is a fundamental constitutional right. Although in 2016 the District Court of Oregon issued a landmark opinion sustaining this instance and allowing the case to proceed to trial, in January 2020 the Ninth Circuit Court of Appeal in Portland dismissed it for lack of standing⁸⁸. A petition for rehearing en banc the case was submitted in March 2020 and is still pending.

⁸⁶ A crowdfunding initiative to bring a case before the ECtHR was launched in 2017 on part of a group of Portuguese children inspired by the *Urgenda* case. See D. Hodas, *US climate change adjudication: the epic journey from a petition for rulemaking to national greenhouse gas regulation*, in C. Voigt, Z. Makuch, *Courts and the Environment*, Cheltenham, 2018, 343.

⁸⁷ On the Court's lack of ambition and courage in environmental matters, see E. Lambert, *The Environment and Human Rights. Introductory Report to the High-Level Conference "Environmental Protection and Human Rights"*, 2020, 15, at rm.coe.int/report-e-lambert-en/16809c827f.

⁸⁸ See M.C. Blumm, M.C. Wood, *No Ordinary Lawsuit: Climate Change, Due Process, and the Public Trust Doctrine*, in *Am. U. L. Rev.*, 1, 2017, 1 ff.; H. Aidun, M. Libby, *Juliana in the World: Comparing the Ninth Circuit's Decision to Foreign Rights-Based Climate Litigation*, in *Climate Law Blog*, March 13th 2020, in blogs.law.columbia.edu/climatechange/2020/03/13/juliana-in-the-world-comparing-the-ninth-circuits-decision-to-foreign-rights-based-climate-litigation/.

Legal scholars question whether the right to a stable climate can be considered an autonomous right. Most of them seem to agree on the fact that it may be inferred by other established human rights, as the right to life primarily, and to health and respect for private and family life as further corollaries. There is also someone who argues that a human right to a stable climate may be derived from the right to an adequate environment⁸⁹.

The right to live in a stable climate and the right to a healthy environment have a point in common, as both may be inferred by the right to life and may be further substantiated by other fundamental rights. Moreover, the environment is also seriously affected by changes of climate. Precisely for this reason, a stable climate system is considered a component of the right to a healthy environment⁹⁰. Nevertheless, inferring the right to climate from the right to environment does not seem a proper interpretative choice from the legal point of view, in the light of the above-mentioned differences between the concepts of climate and environment and of the distinct legal bases that regulate these matters. Rather, the violation of the right to climate might be more conveniently alleged basing this harm on other fundamental rights already existent in national and international law. In this perspective, the protection of life and the respect for private and family life must be interpreted as including the right to live in a stable climate system. Suffice it to think of the usefulness of Articles 2 and 8 ECHR in the *Urgenda* case and of the fact that similar provisions are foreseen in every constitutional system and also in the EU legal order, enshrined in Articles 2 and 7 Charter.

The circulation of legal arguments on the right to live in a stable climate system is at its infancy stage and an increase in terms of dissemination of ideas and principles among lawyers, legal scholars and judges can be predicted. On the resort to non-domestic legal ideas in this matter, one can recall the lawsuit known as *Affaire du Siècle*, brought forward by the Administrative Court of Paris in May 2019 and still pending. The team of lawyers and experts has been inspired by the *Urgenda* case as well as the *Juliana* case and the US legal doctrine. The plaintiffs sustain the existence of a general principle of law recognising a subjective right, namely the right to live in a sustainable climate system. Their scope is to persuade the Court to recognise a specific climate-related general principle in order to consolidate the obligation to tackle climate change and to open the possibility to challenge any act or omission inconsistent with climate protection⁹¹. This profile seems to clarify why the claim for the affirmation of the right to climate should be kept separate from the vindication of other fundamental rights.

⁸⁹ Some speculations are made by D. Bell, *Climate change and human rights*, in *WIREs Climate Change*, 4, 2013, 159 ff. See also S.R. Foster, P. Galizzi, *Human rights and climate change: building synergies for a common future*, in D. Farber, M. Peeters (eds), *op. cit.*, 43 ff.

⁹⁰ An analysis of the development of climate change litigation in various jurisdictions in which parties have sought to invoke environmental rights, as the right to a quality environment, is made by B.J. Preston, *The Evolving Role of Environmental Rights in Climate Change Litigation*, in *Chinese J. of Environmental Law*, 2, 2018, 131 ff.

⁹¹ See C. Cournil, A. Le Dyllo, P. Mougeolle, *L'affaire du Siècle: French Climate Litigation between Continuity and Legal Innovation*, in *Carbon & Climate Law Rev.*, 1, 2020, 40 ff.

In turn, the Italian lawsuit that should be launched in Autumn 2020, dubbed the *Giudizio Universale* case, finds its sources of inspiration in the *Urgenda* and *Affaire du Siècle* cases. The promoters of this judicial initiative intend to call for the recognition of the human right to the climate, which incorporates the principle of *neminem laedere* and is linked to the right to life in the Anthropocene era. A life that would no longer be possible without a safe and stable climate. The affirmation of this right should allow each person to complain about the threat of serious or irreversible damage pursuant to Art. 3 UNFCCC and to require that the State and corporations respect the stability of the climate system⁹².

Above all, it must be stressed that this decade is crucial to modify the collective approach to climate change and to avoid the most catastrophic and irreversible consequences of this phenomenon⁹³. Therefore, a revision of the legislations in force is needed both at EU and domestic level in order to adopt stricter rules of greenhouse gas emissions under international standards. More importantly, a paradigm shift in the Western model of development is needed to legitimate new measures in the name of the Earth's survival, and with it our own and that of the generations yet to be born.

⁹² See at giudiziouniversale.eu/la-causa-legale/ and also M. Carducci, *Are climate change litigations possible in Italy?*, 17 June 2020, at blogdroiteuropeen.com/, and Id., *Lo "status climaticus": un'esperienza inedita per il diritto*, in *Geologia dell'Ambiente*, supplement 2, 2020, 1 ff.

⁹³ See IPCC, *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments*, 2018, at www.ipcc.ch/sr15/.