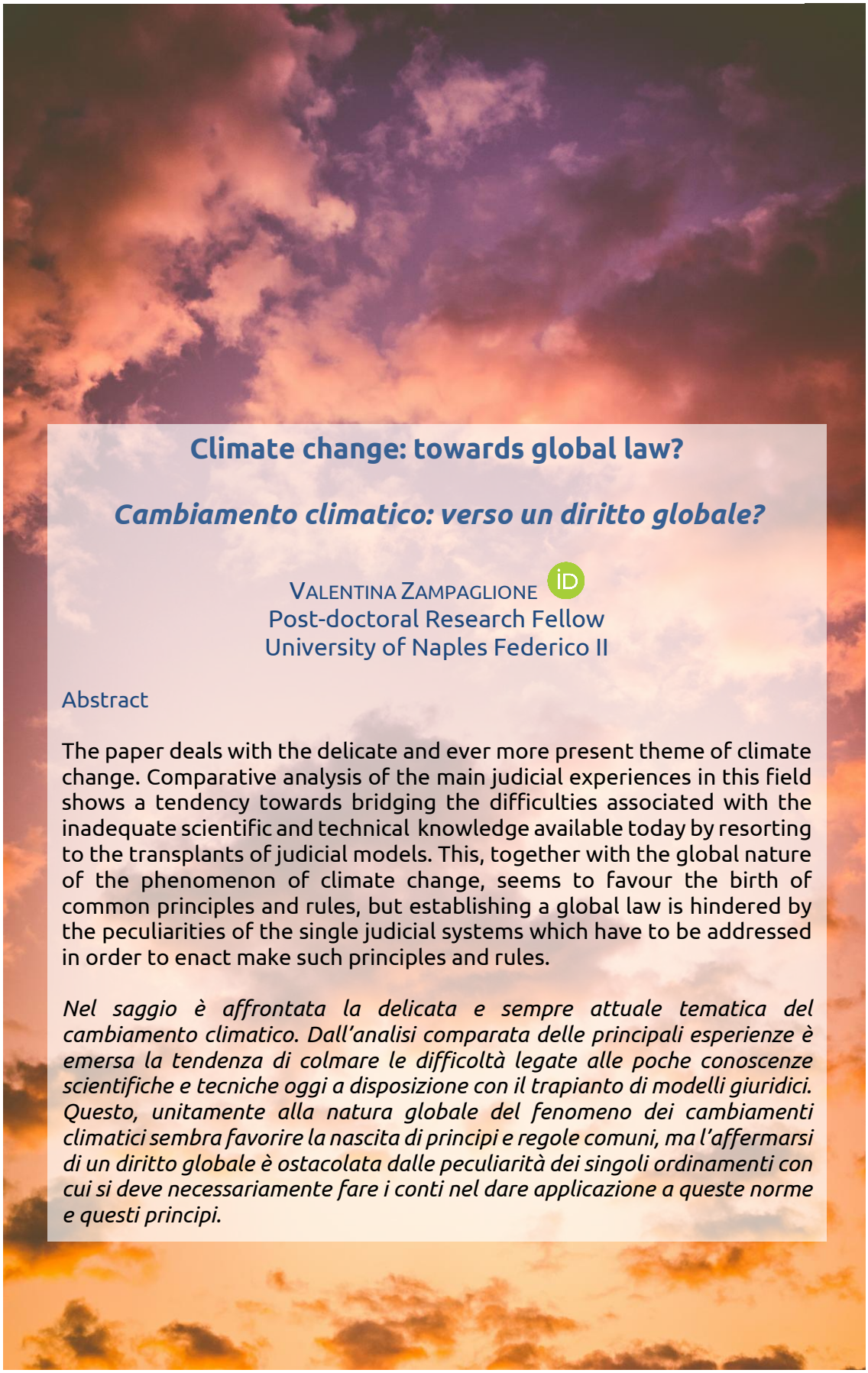
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Climate change: towards global law?

Cambiamento climatico: verso un diritto globale?

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Abstract

The paper deals with the delicate and ever more present theme of climate change. Comparative analysis of the main judicial experiences in this field shows a tendency towards bridging the difficulties associated with the inadequate scientific and technical knowledge available today by resorting to the transplants of judicial models. This, together with the global nature of the phenomenon of climate change, seems to favour the birth of common principles and rules, but establishing a global law is hindered by the peculiarities of the single judicial systems which have to be addressed in order to enact make such principles and rules.

Nel saggio è affrontata la delicata e sempre attuale tematica del cambiamento climatico. Dall'analisi comparata delle principali esperienze è emersa la tendenza di colmare le difficoltà legate alle poche conoscenze scientifiche e tecniche oggi a disposizione con il trapianto di modelli giuridici. Questo, unitamente alla natura globale del fenomeno dei cambiamenti climatici sembra favorire la nascita di principi e regole comuni, ma l'affermarsi di un diritto globale è ostacolata dalle peculiarità dei singoli ordinamenti con cui si deve necessariamente fare i conti nel dare applicazione a queste norme e questi principi.

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Keywords: Climate change; environment; climate law; climate change litigation; universal judgement; PNACC; public trust doctrine; legal transplants

Summary: 1. Introduction: climate change. – 2. Climate change and the environment in the light of the PNACC. – 3. The influence of the US experience. – 4. The contribution of climate change litigation. – 5. Conclusion: a tendency towards global law.

1. Introduction: climate change.

Recent innovations that have involved the Italian legal system, like approval of the Piano Nazionale di Adattamento al Cambiamento Climatico (PNACC)[1] of 21st December 2023 and the definition of 'universe judgement' with Sentence N°. 35542 of 21st February 2024 from the Tribunal of Rome, suggest there is a need to examine the law's approach to climate change, a phenomenon which is very much with us and of interest for the global community.

In fact, with regard to climate change[2] jurists are playing a strategic role, especially because we are still in a period when scientific knowledge on the subject is just out of its infancy.

This is a challenge that the global community has had to face, and it requires coordinated action at all levels of government and among the various fields of knowledge and involving civil society.[3]

Phenomena which are an expression of climate affect the entire planet, irrespective of place where the polluting emissions occur and are associated with the alteration of the balance of greenhouse gases present in the atmosphere.[4]

In the following pages, after a preliminary attempt to distinguish the relationship between environmental and climate change, I shall try to shine light on the current tendencies towards a global law and the contribution of

[1] National Plan for Adapting to Climate Change.

[2] According to ST Jackson climate change is the periodic modification of the world's climate caused by changes occurring in the atmosphere, also through the interaction of the same and other factors concerning the biological, chemical, geological and geographical nature of the Earth as a system. ST Jackson, "Climate change", Encyclopedia Britannica (27 April 2021), www. britannica.com. Scientific recognition of the phenomenon started at the end of the 19th century cfr.: D Bodansky, J Brunnée, L Rajamani, *International Climate Change Law* (Oxford University Press 2017) 97. According to the IPPC the causes of climate change can be variously traced to natural internal processes and external forces, like the modulation of sun cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere, that is, the use of the planet. Cfr. IPCC [JBR Matthews (eds.)] 'Annex I: Glossary?, in Masson- Delmotte, VP Zhai, HO Pörtner, et all., *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty,* (2018) www.ipcc.ch.

[3] On the role of civil society in the governance of the environment cfr.: T Bernauer, C Betzold, 'Civil society in global environmental governance' (2012) 21 The Journal of Environment & Development, 62.

[4] Cfr. PH Sand, 'The evolution of international environmental law', in D Bodansky, J Brunnée, E Hey (*eds.*), *The Oxford handbook of international environmental law* (Oxford University press 2008), 29-43.

climate change litigation[5] in this formative argument, putting a spotlight on the influence of the US experience.

2. Climate change and the environment in the light of the PNACC.

The initial profile that needs to be discussed is that of the relationship between climate change and the environment and how this is addressed by the PNACC.

The PNACC was adopted through Decree No. 434 of 21st December 2023 of the Ministry of the Environment and Energy Safety (MASE) and is an expression of the new approach, inaugurated by the Paris Agreement of 2015, which coupled the planning and implementation of actions to adapt to climate change with actions of mitigation, that is, actions aimed at reducing greenhouse gases present in the atmosphere. Prior to the Agreement such global policies only centred on actions for mitigation. [6] However, the relationship between the two instruments is not one of parity. Mitigation is the primary means of prevention of damage from climate change. Adaption, instead, is a secondary instrument that aims at reducing the negative effects and consequences of climate change, and if possible, exploiting the positive consequences, thereby limiting the damage while awaiting the elimination of the causes through actions of mitigation.

The PNACC itself is part of what may be considered third level of regulations, after Community law (which constitutes the second level) and international law (the first level). The juridical picture of the subject of climate change is multi-level and strongly fragmented because it derives from numerous uncoordinated supra-national and national juridical instruments with differing areas of application and enforcement powers.[7]

The national plan contains adaptation measures for Italy, a nation situated in the so-called Mediterranean Hotspot,[8] and has the objective of "providing a picture of the national direction for minimising possible risks deriving from climate change, improving the capacity of resilience and adaptation of the socio-economic and natural systems, as well as taking advantage of the possible opportunities that may arise with the new climatic conditions".

What is most important to stress is that in reconstructing the normative picture of reference reveals the MASE how the theme of climate change was initiated within environmental law, though having connections with other

[5] Inter alia B Pozzo, 'The climate change litigation in a comparative law perspective', in F Sindico, MM Mbengue (*eds.*), *Comparative Climate Change Litigation: Beyond the Usual Suspects* (Springer 2021), 603; W Kahl, MP Weller (*eds.*), *Climate Change Litigation. A Handbook* (Beck, Hart, Nomos 2021); J Peel, H Osofsky, *Climate Change Litigation: Regulatory Pathways to Cleaner Energy* (Cambridge University Press 2015); M Spitzer, B Burtscher, 'Liability for Climate Change: Cases, Challenges and Concepts' (2017) 2 JETL, 137-176.

[6] On this issue cfr. M Del Signore, 'Introduzione al convegno "Il cambiamento climatico: tra mitigazione e adattamento" (2021) 1 Rivista giuridica dell'ambiente, 1; S Nespor, 'Considerazioni preliminari su mitigazione e adattamento in tema di cambiamento climatico' (2021) 1 Rivista giuridica dell'ambiente, 7.

[7] Cfr. inter alia A Averchenkova, S Fankhauser, M Nachmany (eds.), *Trends in Climate Change Legislation, Cheltenham*, (Edward Elgar Publishing 2017); DA Farber, M Peeters (eds.), *Climate Change Law* (Edward Elgar Publishing 2016); KR Gray, R Tarasofsky, C Cinnamon (eds.), *Oxford Handbook of International Climate Change Law* (Oxford University Press 2016); A Van Harro, F Sindico, M Mehling, Global Climate Change and the Fragmentation of International Law (2008) 30 (4) Law & Policy, 423.

[8] An area particularly exposed to phenomena associated with climate change.

branches of law, like international law and energy law, and that a true climate law is progressively being defined. Therefore, it is natural to ask up to what level are the principles and rules of environmental law applicable in the field of climate law.[9]

The text of the UE directive 2004/35/CE, implemented by Italy under Legislative Decree N°. 152/2006, clearly specifies (part six) that "civic liability cannot be applied to all forms of environmental damage" and that for any such liability to be effective it is necessary that there are one or more identifiable polluters, the damage is concrete and quantifiable and that the causal relationship between the damages and the polluter are established. The directive also makes it clear that "civil liability" is not an instrument fit for treating pollution of a widespread and general nature and in cases where it is impossible to connect the negative environmental effects to acts or omissions of some single subjects.

So, the norm in question does not appear to be applicable to what is, by definition, a phenomenon on a global scale. Climate change, in fact, involves the entire biosphere and is not retraceable to a specific territorial setting. Besides, the damages occur over an extended length of time, it is tendentially irreversible, dynamic and not circumscribed and it is the collectivity in general that incurs damages. To this it may be added that even though climate change is recognised by the scientific world as an anthropic phenomenon, it is substantially impossible to ascertain strict relationships of causality (that among other things, for environmental law, is placed as a *condicio sine qua non* of admissibility of legal action), among the different and multiple causes that contribute to climate change and the impacts that derive from them. Besides, actions that directly and indirectly contribute to climate change, there are often legal and authorised within the profile of environmental law. Finally, it must be recalled that the effects, like the causes, of climate change are global, transversal and non-territorial.

Because of their characteristics damages from climate change cannot, therefore, be treated under environmental law[10] nor is it possible to undertake legal action for extracontractual liability under today's procedures. This lack of protection does not occur only in the Italian system. At a global level the results of most legal actions are not very positive, but despite this there is an increasing tendency of resorting to legal procedures.

The result is particularly complex because, besides the difficulties with regard to the right to bring forward legal action (standing), the need to prove a causal relationship [11] and the quantification of damages, there are also problems of legal certainty, parity of treatment and intergenerational responsibility, and respect of the principle of separation of powers and national sovereignty.

[9] This is also particularly interesting under the profile of concrete achievable actions to achieve attaining the objectives for CO2 emissions reduction and adherence the planning of the energy transition, as well as for possible payments of possible and correlated damages, which, however, we cannot dwell on in this work.
[10] Even the damaged parties themselves are aware of this: neither citizens nor associations have started procedures for the assessment of environmental damages under Part VI of legislative degree N° 152/2006.
[11] For all systems which, like the Italian system, subordinate civil liability to the rigorous proof of the causal relationship between damages and the event.

3. The influence of the US experience.

The global nature of the issue, incomplete scientific knowledge and inadequate technical expertise severely limit the application of national and regional legal approaches, meaning that experience from other jurisdictions can be of great use. It is not sufficient only to leave the confines of the Italian system but, despite its attempts to be a leading influence on climate policies, it is also necessary to go outside the UE and to look at experiences elsewhere.[12]

Among all possible reference points the situation in the United States is interesting.[13] In the USA no administrative and legislative action had been taken at a federal level to face the problem of climate change until the Clean Power Plan of 2015.[14] Faced with the disinterest of the legislature to enact new regulations, a massive use of resorting to judicial action has come about, which is distinguished for the innovation of its underlying arguments. This has also become a source of inspiration in other judicial systems and the origin of the phenomenon of legal transplants.[15]

Among the various underlying arguments of the actions it is worth noting the public trust doctrine (PTD),[16] not so much in terms of its validity, which is still in doubt, (as confirmed by the uninspiring results of the actions[17]), but because of its capacity to influence other systems not only the common law ones[18] but also the mixed ones[19] and also, with some amendments, the civil law

[12] Cfr.: L Van Schaik, S Schunz, 'Explaining EU activism and impact in global climate politics: is the Union a norm-or interest-driven actor?' (2012) 50 JCMS, 169; G Marín Durán, E Morgera, *Environmental Integration in the EU's external Relations, Beyond Multilateral Dimensions* (Hart Publishing 2012), 12.

[13] Both for the high number of legal cases arising in the setting of climate change and for the innovation of the approaches adopted. Neither should it be overlooked that the US system had to deal with this type of problem before others.

[14] Cfr.: MB Gerrard, 'United States Climate Change Law', in KR Gray, R Tarasofsky, C Carlarne (eds.), *Oxford Handbook of International Climate Change Law* (Oxford University Press 2016); CP Carlarne, *Climate Change Law and Policy: EU and US Approaches* (Oxford University Press 2010).

[15] On the phenomenon of the circulation of judicial models cfr.: R Sacco, *Introduzione al diritto comparato* (UTET 1990); A Gambaro, R Sacco, *Sistemi giuridici comparati*, (Utet 1996), 30; A Watson, *Legal transplants: an approach to comparative law* (The University of Georgia Press 1974); JA Sánchez Cordero (eds.), *Legal cultures and legal transplants, Reports to the XVIIIth International Congress of Comparative Law*, (2011) 1 (2) Isaidat Law Review, 1-1188.

[16] RM Pemberton, MC Blumm, 'Emerging Best Practices in International Atmospheric Trust Case Law' (2022) 5 Utah Law Review, 942; S Fanetti, Public trust doctrine e cambiamenti climatici: uno sguardo agli Stati Uniti e oltre, in M Graziadei, M Timoteo, A Carpi (eds.), *Chi resiste alla globalizzazione? Globalismi, regionalismi, nazionalismi nel diritto del XXI secolo. Atti del VII convegno nazionale SIRD* (Bologna University Press 2023), 121.

[17] The only exception is the ordinance issued by judge Aiken in the well-known Juliana case, later overturned by the Ninth Circuit Court of Appeal, Juliana v. United States, 947 F.ed 1159 (9th Cir. 2020).

[18] J Razzaque, 'Application of public trust doctrine in Indian environmental cases', (2001) 13 Journal of Environmental Law, 221. The Supreme Court of India recognised public trust in 1996, in an opinion that quoted Professor Sax's article.

[19] By way of example one may consider that in India and in the Philippines the Supreme Courts have recognised the PTD as an integral part of the system (for India cfr.: *MC Mehta v. Kamal Nath and others* (1997 1 SCC 388); and for the Philippines cfr.: *Oposa v. Factoran* (G.R. No. 101083.224 S.C.R.A. 792, 1993). The PTD was invoked by the courts in Uganda to halt the conversion of forests into land for the cultivation of sugar cane; while in Kenya for the adequate treatment of waste water. In some laws in South Africa, instead, the government is named as the trustee of natural resources. On this point cfr.: RD Sagarin, M Turnipseed, The public trust doctrine, Where Ecology Meets Natural Resources Management (2012) 37 Annual Review of Environment and Resources, p. 482. For systems of civil law cfr.: B Pozzo, 'Climate change litigation in a comparative law perspective', in F Sindicio, MM Mbengue (eds.) *Comparative climate change litigation: beyond the usual suspects* (Springer 2021) 603; DG Dyer, 'California beach access: the Mexican law and the public trust' (1972) 2 (3) Ecology law quarterly, 571-611.

systems.[20]

Under to this theory, the public subject (so-called legal owner) holds some natural resources in trust, undertaking to manage and protect them for future generations [21] (so-called beneficiary, equitable owner). Starting from the second half of the last century the doctrine lent itself to enforcement of the institution, traditionally only aimed at impeding a monopolistic use of navigable waters, transforming it into an instrument for the protection of the environment. [22] In this way, by extending the field of application of the institution to the atmosphere it attempted, through judicial means, to have governments recognise the existence of a obligation to reduce emissions of greenhouse gases and to act against climate change.[23]

Even though the impulse of the doctrine has been such as to influence (partially) even jurisprudence[24] and legislation, even at a federal level,[25] cases argued on the basis of the PTD have not had very satisfactory outcomes. In fact, the applicability of the doctrine at a federal level remains doubtful[26] and, at the same time, there is no homogeneous interpretation of the doctrine, but rather as many interpretations as there are federal states. These are only some of the many limits.

Under discussion is enforcement of the PTD to include the atmosphere as something in trust. In fact, though recognising the possibility of modifying its application setting, courts have judged that the extension to the atmosphere

[20] DG Dyer, 'California Beach Access: The Mexican Law and the Public Trust', (1972) 2 Ecology LQ, 571.

[21] MD Smith, 'A Blast from the Past: The Public Trust Doctrine and Its Growing Threat to Water Rights', (2016) 46 (3) Environmental Law, 470; JC Dernbach, 'Taking the Pennsylvania Constitution Seriously When It Protects the Environment: Part II - Environmental Rights and Public Trust', (1999) 104 (1) Dickinson Law Review , 118.

[22] RE Lutz, 'The laws of environmental management: a comparative study', (1976) 24 American Journal of Comparative Law, 447; MC Blumm, ZA Schwartz, 'The Public Trust Doctrine Fifty Years After Sax and Some Thoughts on Its Future', (2021) 44 Public Land & Resources Law Review, 2.

[23] The contribution of Joseph Sax has been decisive for the extension of the field of application of the PTD. Cfr.: J Sax, 'The public trust doctrine in natural resource law: effective judicial intervention', (1970) 68 (3) Michigan law review, 471-566. On the extension of the PTD to the atmosphere cfr. MC Wood, *Nature's trust: Environmental law for a new ecological age* (Cambridge University Press 2013), 221. In particular the author claims that: 1) the atmosphere is among the natural resources in public trust, 2) the beneficiaries of the PT are the current and future generations; 3) all the nations on earth are cotenant sovereign trustees of this resource, giving the different levels of government a fiduciary duty to protect the air, the atmosphere and the climate system from a substantial deterioration and a corresponding positive obligation to restore climatic equilibrium; 4) courts must recognise and this fiduciary duty and ensure that it is respected. See also: RK Craig, 'Adapting to climate change: the potential role of state common law public trust doctrines', (2009) 34 Vt. L. Rev., 781.

[24] An extensive approach to PTD has been adopted by some State courts in the United States, to protect, for example, the recreative use and aesthetic enjoyment of rivers and lakes, or for protecting the wild flora and fauna. On this point cfr. JM Coumes, 'Look to Windward: the Michigan Environmental Protection Act and the case for Atmospheric trust litigation in the Mitten State', (2020) 10 (1) Michigan Journal of Environmental & Administrative law, 281.

[25] For example CERCLA, *The Comprehensive Environmental Response, Compensation, And Liability Act* (1980). For further analysis cfr.: M Cenini, 'The CERCLA model: past, present and future', in B Pozzo, V Jacometti (eds.), *Environmental loss and damage in a comparative law perspective* (Cambridge University Press 2021), 258. For the influence of the constitutional norms of the single US states cfr.: MT Kirsch, 'Upholding the public trust in State Constitutions', (1997) 46 (5) Duke Law Journal, 1169-1210; F Fracchia, 'Amministrazione, ambiente e dovere: Stati Uniti e Italia a confronto', in D De Carolis, E Ferrari, A Pollice (eds.), *Ambiente attività amministrativa e codificazione. Atti del primo colloquio di diritto dell'ambiente, Teramo, 29-30 aprile 2005*, (Giuffrè 2006), 136.

[26] M Burger, J Gundlach, *The Status of Climate Change Litigation: A Global Review*, (2017 Sabin Center for Climate Change Law, Columbia Law School & UN Environment), 24 (https://scholarship.law.columbia.edu/sabin_climate_ change/98/).

is a significant distancing from the traditional doctrine.[27] They have also consider the difficulties connected to the legitimization to legal action (standing) for which, in most parts of the federal states, three conditions must be satisfied:[28] the concreteness of the damage at the time the compensation is requested (injury in fact); the existence of a causal link between the damages and the contested conduct (causation); and the probability that the asserted damages can be covered or fixed through a favourable decision (redressability).[29] No less important are the problems linked to the political question doctrine, according to which, in application of the principle of separation of powers, political questions must be addressed by an elected branch of government and not by the courts.[30]

To overcome these difficulties parties claiming damages have recently reviewed their own judicial strategies and started to invoke violations of fundamental principles and human rights.[31]

4. The contribution of climate change litigation.

Today, judicial cases that can be traced to climate change litigation, in the wake of litigation undertaken in the USA and Australia, have arisen on all continents[32] and most times the objective pursued is to influence regulation on the subject, requesting policy makers to enact the existing norms or, where these are insufficient, to make the due modifications to older laws or to adopt new ones(*regulation through litigation).* This is the new direction of the climate cases, traditionally conceived as actions against private subjects or public

[27] *Alec L. v. Jackson*, 863F. Supp. 2d 11 (2012); *Chernaik v. Brown*, 367 Or. 143 (2020). Cfr.: GD Meyers, 'Variation on a Theme: Expanding the Public Trust Doctrine to Include Protection of Wildlife', (1979) Envtl. L. 19, 723; TA Campbell, 'The Public Trust, What's it Worth', (1994) 34 Nat. Resources J., 73; L Hargrave, 'The Public Trust Doctrine: A Plea for Precision' (1992) 53 La. L. Rev., 1535; HR Bader, 'Antaeus and the public trust doctrine: a new approach to substantive environmental protection in the common law', (1992) 19 BC Envtl. Aff. L. Rev., 749; H Ingram, CR Oggins, 'The Public Trust Doctrine and Community Values in Water', (1992) 32 Nat. Resources J., 515; A Rieser, 'Ecological preservation as a public property right: An emerging doctrine in search of a theory', (1991) 15 Harv. Envtl. L. Rev., 393.

[28] This is the test *Lujana v. Defenders of Wildlife*, 504 U.S. 555 (1992). Starting from the 1940s, the Supreme Court of the United States, on the basis of Article III, section II, of the Federal Constitution (so-called cases and controversies criterion) has supported the necessity of verifying the prerequisite of standing so as to guarantee that whoever takes a case to court has a real interest in the case. On this cf.: BC Mank, *Standing for private parties in global warming cases: traceable standing causation does not require proximate causation* (Michigan State Law Review 2012), 875; M Juhn, 'Taking a Stand: climate change litigants and the viability of Constitutional Claims' (2021) 89 (6) Fordham Law Review, 2746.

[29] F Scalia, 'La giustizia climatica', (2021) 10 federalismi.it, 277.

[30] JR May, 'AEP v. Connecticut and the future of the political question doctrine', (2011) The Yale law journal online, 127; M Rosso Grossman, 'Climate change and the individual' (2018) 66 (S1) The American Journal of Comparative Law, 357.

[31] M Montini, 'Verso una giustizia climatica basata sulla tutela dei diritti umani', [2020] Ordine internazionale e diritti umani, 506; J Peel, HM Osofsky, 'A Rights Turn in Climate Change Litigation?', [2018] Transnational Environmental Law, 37; A Savaresi, J Auz, ?Climate Change Litigation and Human Rights: Pushing the Boundaries', [2019] Climate Law, 244.

[32] Even though in most systems cases coming under the general heading of 'climate change' have not been raised Cfr:. C Huglo, *Le contentieux climatique: une révolution judiciaire mondiale*, (Bruylant 2018). Cfr. also the Report presented by the UNEP (United Nations Environment Programme) in collaboration with the Sabin Center for Climate Change Law at the Columbia University di New York: The Status of Climate Change Litigation – A Global Review, May 2017.

bodies with regard to specific projects or specific activities [33] to request material damages (or other loss determined by events that are and expression of climate change), to obtain the compensation, or inhibitory provisions or injunctions[34] against the parties that are deemed liable.[35]

Faced with an increasingly widespread global tendency to resort to judicial action, it is worth considering the role that litigation may play in policies against climate change and in the process of harmonisation of laws.

For a better understanding of the issue it is useful to focus on one of the most critical aspects of climate change litigation at a global level, that of the violation of the principle of separation of powers.

On this issue it is worth looking at Sentence No. 35542 of 21st February 2024 in which the court in Rome decided the first civil case advanced in Italy for payment of damages[36] is particularly interesting. Specifically, the case aimed at having the Italian State declared liable, under Articles 2043 and 2051 of the Civil Code, for the violation of the human right to a stable and safe climate (articles 2 and 32 Cost. and 6 TUE), because of its lack of commitment with regard to environmental policies. It was also requested that the State be ordered to lower greenhouse gases to 92% of the 1990 levels within 2030. The case was decided by declaring the request inadmissible because of an absolute defect of jurisdiction, justified by the fact that the choice of stemming the phenomenon of climate change entails strategic evaluations of a socio-economic type, involving cost-benefit analysis for many sectors in the life of the collectivity, and, therefore, the issue comes under the sphere of the attribution of political power. This is enough to understand how the teachings of the Mortati are still far from being applied and how much we should still reflect on what sense to give to the principle of separation of powers, nowadays (recalling that the relationship between "function" and "power" must change with the evolution of the socio-political context) so as to truly contribute to the enactment of the State guarantee, in which the reasoning for the abovementioned principle resides.

The issue of the violation of the principle of separation of powers was decided in different terms in the well-known Urgenda case,[37] that can certainly

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[33] High Court of the Republic of South Africa, Earthlife Africa Johannesburg and Another v Minister of Energy and Others; cfr.: TL Humby, 'The Thabametsi Case: Case No 65662/16 Earthlife Africa Johannesburg v Minister of Environmental Affairs', (2018) 30 (1) Journal of Environmental Law, 145.

[34] For example: International court of justice, judgment of 26 May 2021, Milieudefensie tegen Royal Dutch Shell, C/09/571932 / HA ZA 19-379; Hamm regional court of appeal, decision of 13 November 2017, Lliuya v. RWE AG, cfr.: W Frank, C Bals, J Grimm, The Case of Huaraz: First Climate Lawsuit on Loss and Damage Against an Energy Company Before German Courts, in R Mechler, L Bouwer, T Schinko, S Surminski, J Linnerooth-Bayer (eds.), *Loss and Damage from Climate Change. Climate Risk Management, Policy and Governance* (2019 Springer online) 475 (https://link.springer.com/book/10.1007/978-3-319-72026-5).

[35] V Jacometti, 'Climate Change Litigation: Global Trends and Critical Issues in the Light of the Urgenda 2018 Decision and the IPCC Special Report "global Warming of 1.5 °C", [2019] Global Jurist.

[36] On which L Butti, 'Climate Change Litigation in Italy', in W Kahl, MP Weller (eds.), *Climate Change Litigation*, (Beck, Hart, Nomos 2021), 324; R Luporini, 'The 'Last Judgment': Early reflections on upcoming climate litigation in Italy', (2021) Questions of International Law (QIL), Zoom-in, 27.

[37] *Urgenda Foundation v. The State of the Netherlands*, 24th June 2015 decision of the District Court of The Hague; cfr. also: V Jacometti, Climate change litigation: global trends and critical issues in the light of the Urgenda 2018 decision and the IPCC special report "Global warming of 15° C" [2019] Global Jurist; KJ De Graaf, JH Jans, 'The Urgenda decision: Netherlands Liable for role in causing dangerous global climate change', (2015) 27 Journal of Environmental Law, 517; J Van Zeben, 'Establishing a governmental duty of care for climate change mitigation: will Urgenda turn the tide?' (2015) 4 Transnational Environmental Law,

be considered the best known case at a European level. Without wishing to go further into detail in this paper the three important sentences under which the duty of the Netherlands State to adopt more rigorous measures of mitigation was recognised, goes to show how judges have specifically excluding the violation of the principle, in that when human rights are in play it is the system that requires judicial control of its actions and of the choices of legislative bodies and government, even if that could bring about consequences of a political nature. However, it should not be forgotten that the favourable judicial result depends on the specificity of the Netherlands system that recognises the possibility of associations and foundations to take legal action to guarantee general and collective interests of a determined group of subjects.[38] Despite this, the sentence has exercised notable influence on later decisions, not only at a national level. One may consider, for example, the well-known decision with which the District Court of The Hague condemned, for the first time, a private company, Royal Dutch Shell, to reduce its own emissions, in that it is held to a duty of due diligence towards The Netherlands citizens, put in danger by the excessive emissions of greenhouse gases by the multinational business.[39]

Another case to consider is the sentence of the German Constitutional Court[40] which declared federal law on the protection of the climate partially illegitimate and imposed on the legislature the task of to further disciplining the reduction objectives for the period following 2030, thereby giving a reading of constitutional law in the light of the new climatic necessities, from which comes down a constitutionally guaranteed right to protect the climate system, also with respect to the future generations. Although, this latest decision also had a positive outcome for the specific procedures (*Verfassungsbeschwede*[41]) provided for in the German system. All this demonstrates that the influence of the most important jurisprudential precedents (defined as "strategic") is certainly marked and also extends in those systems where the binding value of precedent it is not formally recognised. But it is also true that there are only a few, a very few, cases in which legal actions have had a positive outcome and

339; B Van Den Broek, L Enneking, 'Public Interest Litigation in the Netherlands. A Multidimensional Take on the Promotion of Environmental Interests by Private Parties through the Courts', (2014) 10 (3) Utrecht Law Review, 77; O Van Geel, 'Urgenda and Beyond: The past, present and future of climate change public interest litigation', [2017] Maastricht University Journal of Sustainability Studies, 56.

[38] Cfr. art. 3.305a Cod. civ. On environmental collective actions in Netherland cfr. B Van Den Broek, L Enneking, 'Public Interest Litigation in the Netherlands. A Multidimensional Take on the Promotion of Environmental Interests by Private Parties through the Courts', (2014) 10 (3) Utrecht Law Review, 77; O Van Geel, 'Urgenda and Beyond: The past, present and future of climate change public interest litigation', [2017] Maastricht University Journal of Sustainability Studies, 56.

[39] International court of justice*, Milieudefensie tegen Royal Dutch Shell* (cfr. note n. 34).

[40] German Constitutional Court, judgment 24 March 2021, 1 BvR 2656/18 (https:// www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2021/03/ rs20210324_1bvr265618en.html). Cfr. inter alia A Buser, 'Of Carbon Budgets, Factual Uncertainties and Intergenerational Equity – The German Constitutional Court's Climate Decision', (2021) 22 (8) German Law Journal, 1409; S Fanetti, Nota a Bundesverfassungsgericht – Beschluss des Ersten Senats vom 24. Mär̈z 2021 (Tribunale Costituzionale Federale Tedesco – Sentenza del Primo Senato del 24 marzo 2021): - 1 BvR 2656/18 - 1 BvR 78/20 - 1 BvR 96/20 - 1 BvR 288/20, Politiche climatiche e tutela nel tempo delle libertà fondamentali: la Legge tedesca sui Cambiamenti Climatici al vaglio del Tribunale Costituzionale Federale', (2021) 2 Rivista dell'Agricoltura, 187.

[41] P Häberle, *La Verfassungsbeschwerde nel sistema della giustizia costituzionale tedesca*, (Giuffrè 2000); H Zuck, *Das Recht der Verfassungsbeschwerde*, (CH Beck 2017).

this is because judgements are influenced by the peculiarities of each judicial, political, economic, social and cultural context and, not least, by their own environment (the so-called legal process).

5. Conclusions: a tendency towards global law.

From a comparative point of view it is possible to observe how there is an ongoing process of harmonization on the subject. The creation of common principles and rules is favoured by the global nature of the phenomenon, but not only by this. In this setting juridical problems are strictly connected to aspects of the natural sciences that are presented as universal and economic problems that appear to be common to the globalized world,[42] and for this reason a tendency has developed to expect input from other systems or to carry out legal transplants.

The market mechanisms provided for in the Kyoto Protocol are a clear example. They have been adopted by the international community on the example of virtuous national systems and have, in turn, become the model for the implementation, on the part of the UE, of its own market of emissions quotas, the European Union Emissions Trading Scheme, a model which has been used, in turn, for other, extra-European, instruments.[43]

In fact, Despite the great steps forward taken at an international level and the leading example of the European Union, the juridical picture is somewhat complex.

In many countries a national norm for implementing the objectives defined by the international community has not been adopted and among countries that have adopted or implemented such norms there is no coordination.

The lack of harmonization is clear, for example, between the EU and the USA. While the first, the EU, has for a long time preferred command and control, integrated with a system of incentives and disincentives, and used economic instruments, the US system, instead, only adopted its first actions at a federal level in 2015. But even within the EU the law is only tendentially harmonized,[44] it having operated through directives, but also especially because of the peculiarities of the single national legal systems.

In fact, the concrete application of uniform rules (even if at a global level) is strictly connected to the legal processes of the country in which such rules are to be applied.[45]

Climate change litigation is central to this process of harmonisation. Even though it is still in evolution and presents numerous difficulties, a model for

[42] J B Wiener, 'Something borrowed for Something Blue: Legal Transplants and the Evolution of Global Environmental Law', [2000-2001] Ecology Law Quarterly.

[43] Cfr. V Jacometti, *Lo scambio di quote di emissione. Analisi di un nuovo strumento di tutela ambientale in prospettiva comparatistica*, (Giuffrè 2010); V Zampaglione, *Emissions Trading e tutela dell'ambiente. Profili di diritto comparato*, (Editoriale scientifica 2022).

[44] B Pozzo, Modelli notevoli e circolazione dei modelli giuridici in campo ambientale: tra imitazione e innovazione, in U Mattei, A Candian, B Pozzo, A Monti, C Marchetti (eds.), *Studi in onore di Antonio Gambaro*, (Giuffrè 2017), 335.

[45] KW Junker, 'Why Compare? The biological, cognitive, and social functions of comparison for the human', (2019) Environmental Law across Cultures, Comparisons for Legal Practice, 3.

action is developing at a global level:[46] very often it is young people or associations for the protection of human rights that invoke, almost as a constant, the violation of fundamental rights and human rights[47] consecrated in sources of varying origins and importance. Not only national, community and international principles like those of precaution or intergenerational equity (fairness) and international treaty laws are invoked. To confront the normative vacuum acts of 'soft law' are also often turned to, like the United Nations Guiding Principles on Business and Human Rights; but also the scientific reports of the Intergovernmental Panel on Climate Chang,[48] the validity of which is specifically recognised in the Paris Agreement.

The tendency towards identifying the causes and effects of climate change on the very same scientific, economic and social studies has also been established. This demonstrates how there is a constant dialogue among claimants belonging to different judicial systems aimed at aligning their legal actions. Similarly, there is a also clear dialogue among courts of various jurisdictions, as can be seen in reading the different judgements.[49] However, uniform action has not led to uniform results.

The positive outcome of the actions is linked to the peculiar characteristics of each judicial system, the so-called legal process. An example of this is the case *Leghari v. Pakistan*[50] in which the adjudicating body recognised the claim of Mr. Leghari and condemned the government to implement adaptive measures, stressing how constitutional rights must be read in the light of new climatic needs. The positive outcome of the controversy was also possible thanks to the particularly detailed legislation of that system (which allows the recognition of the violation of precise obligations), but above all the institute of *Public Interest Litigation*[51] (that allows standing for single parties in court, for questions of public interest) was decisive because it allowed overcoming the issue of standing.

In the same way l'*acciòn de tutela*[52] in Colombia has allowed favourable outcomes of cases there.[53] The same argument is true for the cases examined. This is because, although the natural tendency to harmonization of the principles and the rules has come about, the application and the efficacy of

[46] C Huglo, *Le contentieux climatique: une révolution judiciaire mondiale*, (Bruylant 2018).
[47] This could allow overcoming the obstacles of internal law, like the principle of separation of powers and the question of standing, which have stopped climate related controversies from achieving successful litigation outcomes.
[48] Consultable on line: www.ippc.ch.
[49] Often there are common obstacles to accepting cases: difficulties are encountered when seeking to establish a causal relationship between damages from a specific event; and identification of the party to be held liable.
[50] Lahore high court green bench Pakistan, *Asghar Legari v. Federation of Pakistan* [2015] w.p. No. 25501/2015.
[51] T Hester, 'Private Claims for a Global Climate: US and Indian Litigation Approaches to Climate Change and Environmental Harm', [2013] Journal of the Indian Law Institute; J Razzaque, *Public interest environmental litigation in India, Pakistan and Bangladesh*, (Kluwer Law International 2004).
[52] LC Silva, 'La Acción de Tutela en Colombia', (2011) 5 Revista del Instituto de Ciencias Jurídicas de Puebla, 72.
[53] Corte Suprema de Justicia, *Demanda Generaciones Futuras v. Minambiente*, 5.4.2018, 11001-22-03-000-2018-00319-01; cfr. PA Acosta Alvarado, D Rivas-Ramírez, A Milestone, 'In Environmental and Future Generation's Rights Protection: Recent Legal Developments Before the Colombian Supreme Court', (2018) 30 (3) Journal of Environmental Law, 519; S Bagni, 'Le voci (non del tutto inascoltate) della Natura nella recente giurisprudenza colombiana e indiana', (2018) 37 (4) DPCE online, 989.

these common principles and rules depends on the specificities of the local jurisdictional and administrative systems, but also on the local populations' sensitivity to environmental problems; it is linked, that is, to the legal process, to intrinsic characteristics of the local judicial systems.

Advances in scientific shall also certainly help jurists in developing new theories.[54]

[54] DA Grossmann, 'Warming Up To A Not-So-Radical Idea: Tort-Based Climate Change Litigation', (2003) 28 (1) Colum. J. Envtl., 9.