Climate Change Litigation in a Comparative Law Perspective

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Abstract The complex evolution of the international regulation has led to the development of alternative policy architectures for addressing the threat of global climate change, and to very heterogeneous results in the various regions. This chapter examines in detail how legal transplants work in the environmental field, why they are continuously increasing, and analyses their specific characteristics. In particular legal transplants of environmental protection models have been strongly influenced by the globalized perception of the environmental phenomenon, and by that of its protection. In the last decades, we are witnessing the development of a body of rules, which tends towards a progressive approaching in the development of common operational choices in addressing environmental problems. This certainly derives from the fact that the environmental problem, in addition to having affected all legal systems in an almost contemporary way, is suitable to involve by its very nature multiple countries at the same time. Nonetheless, although climate change protection is a global issue, the implementation of climate change regulations remains a local issue, giving rise to different protection regimes that render comparative law analysis a suitable tool to investigate on the differences existing in the various legal systems.

1 The International Setting

Climate change has undergone a process of international regulation, which has experienced its ups and downs, with international diplomacy devoting more and more attention to the phenomenon.[1]

[1] Oberthür and Pallemaerts (2010); Harris (2000), p. 11; Hsu et al. (2015), p. 501.

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From the 1992 United Nations Framework Convention on Climate Change (UNFCC),[2] to the Kyoto Protocol, which came into force in February 2005, the alternating phases of the institutional debate have established an international binding legislative framework for action, setting the objectives (mitigation and adaptation), and the tools (emissions trading, clean development mechanism, joint implementation) for facing the challenge of climate change.[3]

It should also be noted that, within the framework of the UNFCC and the principle of *common but differentiated responsibility*, industrialised, newly industrialised and developing countries are all called upon to play an active role in climate protection.

After the 18th Conference of the Parties (COP) held in Doha, Qatar, the complex structure taken on by international negotiations has become self evident.

The idea of a single binding international agreement, which would have favoured the prorogation and extension of the Kyoto Protocol has been given up. After that, an attempt was made to cope with the various problems arising out of climate change on the different working tables, but the outcome of these efforts is not easily assessed.

International negotiations have very likely become so complex because of the will to encourage the participation and involvement of all the industrialised and newly industrialised countries as much as possible.[4]

After the COP held in Bali in 2007,[5] it became evident that the United States were to be taken back to the negotiating table and newly industrialised countries were to be induced to make mitigation efforts worldwide, including with tools other than the Kyoto Protocol under the auspices of the United Nations Framework Convention on Climate Change.

However, countries found it hard not to carry on heading down the path set by the Kyoto Protocol, which was felt by most of the Parties concerned as a sort of *acquis* of the international legislation on climate change.

In order to lead the United States back to higher participation, the parties decided to launch a second round of negotiations, always within the Framework Convention, by setting up a second working table, the so called *Ad Hoc Working Group on Long-term Cooperative Action under the Convention* (AWG-LCA).[6]

As set out in section 3.9 of the Kyoto Protocol, the AWG-LCA was supposed to prepare the first meeting of the parties to the Protocol held in Montreal in 2005, in parallel with the so called *Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol* (AWG-KP), so as to identify the obligations of the Parties after 2012.

[2] Freestone (2016).

[3] Piñon Carlarne (2010), p. 6.

[4] Cass (2006).

[5] Ott et al. (2008).

[6] Christiansen (2003).

Hence, the complexity of the negotiations held in parallel, sometimes with different parties, which inevitably results in a lack of transparency of the outcome of the negotiations themselves.

The Paris Agreement, which entered into force on 4 November 2016, was aimed at bringing all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. It was considered a success also because of the will of President Obama and President Xi Jinping to sustain it.[7]

Notwithstanding the withdrawal announced by President Trump, the Paris Agreement remains the point of reference in this complicated evolution of climate change. In this context, the 24th Conference of the Parties to the United Nations Framework Convention on Climate Change took place in Katowice in December 2018. At the conference (COP24), the international community agreed on the *Katowice Rulebook,* that spells out the details on implementing the Paris Climate Agreement. It lays down how countries' national climate contributions should be measured, compared and forwarded to the UNFCCC secretariat.

2 Different Approaches to Climate Change

The complex evolution of the international scenario has led to the development of alternative policy architectures for addressing the threat of global climate change, and to very heterogeneous results in the various regions.[8]

In particular, it is no news that the United States and the European Union share no common perspective on what should be done to fight climate change.[9] Although both, the US and the EU played key roles in the negotiations for the UNFCCC, it is also to note that their roles in the international context has changed over the years and that climate negotiations saw the US and the EU reversing roles from those they had adopted only a few years before during the ozone negotiations.[10]

In the period between the 1960s and the end of the 1980s, the United States has been an enthusiastic promoter of international agreements and treaties in the environmental sector. As Philippe Sand pointed out back in 1994:

> the United States has, historically, played a dominant role in the development of international environmental law. Many of the principles endorsed by the Rio Declaration on Environment and Development were first expressed in U.S. domestic legislation, especially the emerging rules of international law concerning environmental impact assessment, the right of citizens to have access to environmental information and rights of redress before judicial and administrative bodies, and provisions on liability for environmental damage. Many of these emerging international commitments can be traced directly to domestic

[7] Boom et al. (2016).

[8] Aldy et al. (2003).

[9] Piñon Carlarne (2010), p. 237.

[10] Piñon Carlarne (2010), p. 6.

> U.S. law, which has in this and other ways contributed significantly to international law reform.[11]

The US leadership developed in the environmental field at the international level in the 1970s and 1980s could be considered perfectly in line with the US domestic policy in that period. The environmental standards imposed on American companies in those years were certainly more stringent than those made by any other industrialized nation, and the leading role of the United States at the international level was certainly recognized.

An example can easily be drawn from the story that has characterized the American policy on ozone-destroying chemicals. Towards the mid-1970s, the U.S. Environmental Protection Agency severely limited the use of Chlorofluorocarbons (CFCs), which strongly affected the domestic production concerned by this initiative.[12]

In 1977 the Congress banned the use of CFCs and the US government began to pressure European companies to adopt standards similar to those already imposed on American companies in Europe. The legislation promulgated by the American Congress remained however much more severe than the European one for several years and the Montreal Protocol was adopted in 1987 thanks to American diplomacy.[13]

Starting in 1992, the role of the United States as a reference model in the environmental sector began a waning parable.

In the absence of effective support from environmentalists, and in the face of numerous criticisms from the world of industrialists, President Bush took a much more detached attitude towards environmental issues and was the only great leader who did not attend the Earth Summit of Rio of 1992.[14]

The different position of environmentalist lobbies appeared even clearer after the election of President Clinton. Clinton proposed a package of environmental reforms and signed the *Convention on Biological Diversity* adopted in Rio, but failed to obtain ratification by the Senate or the adoption of any specific legislation in the environmental sector.[15]

In 1997, when the Kyoto Protocol was opened for signature, Clinton first undersigned the international commitment, which was never ratified by the Senate. Later, President George Bush Jr. distanced himself from international climate change negotiations, preferring not to impose any new environmental burden on American industries. In a 2005 Report prepared by the Natural Resources Defense Council,[16] the US President's policy regarding climate change is described as "characterized by irresponsible inaction and studied ignorance in the face of overwhelming scientific consensus."[17]

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[11] Sand (1993).

[12] Kelemen and Vogel (2010), p. 450.

[13] Benedick (1991).

[14] Hopgood (1998), p. 140.

[15] Kelemen and Vogel (2010), p. 439.

[16] Cousins et al. (2005).

[17] Cousins et al. (2005), p. 9.

2.1 The United States: Litigation in the Absence of Regulation

Notwithstanding the fact that the United States has never ratified the Kyoto Protocol,[18] a number of actions aimed at facing climate changes have been taken in the country to make up for the gaps and defects of federal regulations.[19]

Industries have been the first to take action with their "greener" styles and attitudes:

> Companies have begun rebranding themselves to suggest a more climate-friendly agenda – such as British Petroleum's new tag line "Beyond Petroleum"- and a wide range of corporations are establishing corporate GHG reduction targets, while entrepreneurs look to profit from people's desires to do something about the climate problem.[20]

In his respect, the idea is often to take measures aimed at a "voluntary, legally binding, rules-based greenhouse gas emission reduction and trading system".[21]

The second kind of action has been a local one. In spite of the lack of specific *federal* regulations, *local* initiatives have been remarkable. The first example is the Regional Greenhouse Gas Initiative (RGGI): in December 2005, the governors from seven states entered into an agreement on a system of *cap and trade* for carbon dioxide.[22] These states undertook to reduce their CO_2 emissions from electric plants by 10% by the end of 2018. The Parties to this agreement auction off their emission credits and invest the proceeds for the benefit of consumers through energy efficiency policies, renewable energy and other clean energy technologies.

Another interesting initiative has been taken by 22 States and the District of Columbia, who ask their municipal utilities to develop part of their electricity from renewable sources, while Washington and Oregon ask for a compensation for Greenhouse gases (GHG).

2.1.1 The Climate Change Litigation Movement

The third and last kind of action concerns the development of a "climate change litigation" movement,[23] which may be not so much aimed at damage compensation but rather at "regulation through litigation".[24] As it has been pointed out:

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[18] See the American Report by Margaret Rosso Grossman in this book. See also Harrison (2010), p. 67. Further compare Chalecki (2009), p. 18, in particular p. 152.

[19] Hersch and Viscusi (2006).

[20] Hunter and Salzman (2007).

[21] Hunter and Salzman (2007), p. 1743.

[22] The agreement has been signed by nine States: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.

[23] Pidot (2006).

[24] Hersch and Viscusi (2006), p. 1662.

> In view of this government failure, the use of litigation to address the consequences of climate change might be viewed as being under the general purview of the overall regulation through litigation movement.[25]

Another commentator emphasized "the socio-legal role that climate change litigation plays" in constituting "a formal part of the regulatory process" as well as serving as an "expressive," or "social norm creating" force.[26] In particular,

> [t]he adjudication provides a mechanism for dialogue and awareness . . . in a regulatory environment in which policies have not caught up with the problem. At least as important, it creates diagonal interactions through which different levels and branches of regulators interact and grapple with what is needed.[27]

This is not the place to deepen the discussion if litigation might or not be considered the most suitable instrument to fight against climate change.[28] Anyway, as it has already been pointed out:

> To the extent that litigation can replicate what a meaningful government policy can do, it will do so by establishing appropriate incentives to control emissions related to global warming at efficient levels. What is missing from the litigation process is any internal check to ensure that an efficiency-based pollution control objective is being fostered and that the preferences reflected in the incentives created by the litigation coincide with those of society more generally. It is likely, for example, that the private gain that the litigators stand to reap from such litigation is a strong motivation. There is no assurance that these private gains are in line with societal benefits and costs.[29]

What is important to underline here, is that climate change litigation in the US context needs to be considered as a reaction—from different parts—to the government's absence from the scene.[30]

Nonetheless, climate change litigation does not present itself as a monolithic block, or as a homogeneous trend, but—much more—as a series of proceedings started by different parties for very heterogeneous purposes.[31]

A first group of cases concerned actions from various states against public authorities. In the leading case *Massachusetts et al.,* v. *Environmental Protection Agency,*[32] for example, states sued the EPA under the Clean Air Act (CAA) to order the agency to regulate carbon dioxide as a pollutant.[33] In particular, the claimants

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[25] Id.

[26] Osofsky (2009), pp. 380 and 383.

[27] Id., p. 383.

[28] Huggins (2008).

[29] Hersch and Viscusi (2006), p. 1663.

[30] Blomquist (2012).

[31] Markell and Ruhl (2010). Compare further the US Report by Margaret Rosso Grossman.

[32] Supreme Court, 2 April 2007.

[33] In Massachusetts v. EPA (2007), the U.S. Supreme Court interpreted the Clean Air Act ("CAA") to require the Environmental Protection Agency ("EPA") to regulate greenhouse gas emissions from motor vehicles if the EPA Administrator finds that the emissions endanger public health and welfare ("Endangerment Finding"). See Cecot (2012), p. 190. See further Markell and Ruhl (2010), p. 15; Hester (2012), p. 52; Hunter (2008), p. 268.

sued the U.S. Environmental Protection Agency, because it had "abdicated its responsibility under the Clean Air Act to regulate the emissions of four greenhouse gases, including carbon dioxide"[34] from new motor vehicles. Petitioners asked the Supreme Court to determine whether the EPA had statutory authority to regulate GHG emissions and whether the EPA's reasons for failing to regulate were consistent with the CAA.

The Supreme Court in *Massachusetts et al.,* v. *Environmental Protection Agency* analysed different issues. First of all the *standing issue***.** Justices recognized that GHG emissions caused widespread harm, but at the same time that the State of Massachusetts had constitutional requirements for standing. Massachusetts, as landowner and *parens patriae* for its citizens, was recognized having standing to sue.

As far as *the causation issue* is concerned, the Court evaluated that carbon dioxide emissions from motor vehicles contributed significantly to GHG, so that finally EPA was recognized as competent to regulate GHG.

A second group of cases is exemplified by the action started by some towns and environmental associations against the Overseas Private Investment Corporation (OPIC), the financial institution of the Government of the United States, which promotes US private investments in newly industrialised countries, within the wider framework of US foreign policy promotion.[35] The plaintiffs in this action claimed that the OPIC should start conducting environmental impact assessments regarding its investment procedures, taking into account any possible climate impact of the infrastructures financed by the OPIC itself.[36]

A third group of cases is closely linked with the protection of human rights, as in the case brought by the representatives of the Inuit peoples against the United States before the Inter-American Commission on Human Right.[37] In 2005, the Chair of the Inuit Circumpolar Conference filed a petition against the United States with the Inter-American Commission on Human Rights (IACHR), which is an independent, seven-member body of the Organization of American States (OAS).[38] The petition alleged that the United States committed human rights violations against the Inuit people of the United States and Canada, by failing to restrict GHGs emissions, which resulted in climate change and harm to Inuit culture, life, and physical integrity.[39]

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[34] Massachusetts v. EPA (no. 05-1120), Supreme Court of the United States, Massachusetts, et al., Petitioners v. Environmental Protection Agency et al., on writ of certiorari to the United States Court of Appeals for the District of Columbia Circuit, April 2, 2007, p. 1.

[35] *Friends of the Earth, Inc. v. Watson,* No. C 02-4106 JSW, 2005 U.S. Dist. LEXIS 42335 (N.D. Cal. Aug. 23, 2005).

[36] Hunter and Salzman (2007), p. 1743.

[37] *Petition to the Inter American Commission on Human Rights Seeking Relief From Violations Resulting From Global Warming Caused by Acts and Omissions of the United States* (available at http://www.ciel.org/Publications/ICC_Petition_7Dec05.pdf) (last visited December 2018). Borràs (2012).

[38] Markell and Hammond (2012).

[39] Markell and Hammond (2012), p. 29.

The petition requested that the IACHR conduct an investigation, hold a hearing, issue a report declaring that the United States is responsible for violations of the American Declaration of the Rights and Duties of Man, and recommend that the United States take measures to limit GHG emissions and protect the Inuit people.[40] In 2006, the Commission stated that it would not process the petition "at present," explaining that it was not able to determine, based on the information in the petition, whether the facts alleged would support a finding that the rights protected by the Declaration had been violated.[41]

2.1.2 Climate Change Tort Litigation

A fourth series of initiatives shows that there has been an increase in tort actions against private individuals for compensation of damages resulting from climate changes.[42]

These actions are hard to tackle because of the difficulties in establishing a clear causal connection, in quantifying and distinguishing the damages resulting from anthropical events from those caused by natural events, in identifying and attributing liability.[43] The development of scientific knowledge will definitively help law experts with their theorization efforts.[44]

Tort litigation as developed so far in the United States shows, on the one hand, the nature of its possible claims and, on the other, the unquestionable difficulties of this kind of lawsuits.

In *Connecticut v. American Electric Power*,[45] eight states and the city of New York brought an action against five important fuel manufacturers, allegedly the main parties responsible for CO_2 emissions in the United States. The lawsuit was based in the tort of public nuisance,[46] which can be defined as a behaviour, which obstructs the exercise of rights common to all.[47]

In the case at issue, the breach of the duty of care against defendants was described as follows:

> Defendants, by their emissions of carbon dioxide from the combustion of fossil fuels at electric generating facilities, are knowingly, intentionally or negligently creating, maintaining or contributing to a public nuisance – global warming – injurious to the plaintiffs and their citizens and residents.

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[40] Osofsky (2006), p. 675.

[41] Markell and Hammond (2012), p. 29.

[42] Thorpe (2008), Gifford (2010), Grossman (2003), Blomquist (2012), and Hunter (2008).

[43] Pfrommer et al. (2019) and Hinteregger (2017).

[44] Grossman (2003), p. 9: "*Any climate change lawsuit will be inextricably linked to the science of global warming*".

[45] Connecticut v. American Elec. Power Co., Inc., 582 F. 3d 309—Court of Appeals, 2nd Circuit 2009.

[46] Prosser (1966), p. 1001.

[47] As concerns tort of public nuisance regulations, see Restatement Second of Torts (1977): Christie et al. (1990), p. 874.

> Defendants could generate the same amount of electricity while emitting significantly less carbon dioxide by employing readily available processes and technologies.
>
> Defendants know or should know that their emissions of carbon dioxide contribute to global warming and to the resulting injuries and threatened injuries to the plaintiffs, their citizens and residents, and their environment.[48]

The suit was never decided at first instance because the Court turned down the claim on the grounds that it was a "*nonjusticiable political question*". The plaintiffs appealed.

In an ensuing lawsuit, *Korsinski v. United States EPA*,[49] Mr Korsinski sued the Environmental Protection Agency for tort of public nuisance. The plaintiff's claims, which were mainly based on the same demands made in *Connecticut v. American Electric Power*,[50] were turned down for inability to prove a specific injury.

In *Comer v. Murphy*,[51] which went down in history as "the first climate change liability damages suit",[52] some citizens victims of hurricane Katrina sued nine fuel manufacturers, thirty-one coal producers and four chemical companies on the basis of the following torts: tort of negligence, unjust enrichment, civil conspiracy, fraudulent misrepresentation, concealment and trespass. The Court turned down the claim both at first instance and appeal.

In *California v. General Motors Corp.*,[53] the Attorney General of California started proceedings against General Motors and five other big car manufacturers for tort of public nuisance. According to the statistics shown during the trial, the emissions of the cars manufactured by the defendants account for 9% of CO_2 emissions worldwide. As specified by the Attorney General*: "Defendants know or should have known, and know or should know, that their emissions of carbon dioxide and other greenhouse gases contribute to global warming and to the resulting injuries and threatened injuries to California, its citizens and residents, environment, and economy*".[54] In this case too, the Court turned down the claim both at first instance and appeal.

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[48] Hunter and Salzman (2007), p. 1752.

[49] Gersh Korsinsky, Plaintiff v. U.S. Environmental Protection Agency (EPA); N.Y.S. Department of Environmental Conservation; N.Y.C. Department of Environmental Protection, Defendants. 05 civ. 859 (nrb) United States District Court for the Southern District of New York 2005 U.S. Dist. Lexis 21778 September 28, 2005, decided September 29, 2005, filed.

[50] *American Electric Power Company, Inc., et al., v. Connecticut,* 564 U.S. 410, 131 S. Ct. 2527; 180 L. Ed. 2d 435.

[51] Ned Comer, et al., Plaintiffs-Appellants, v. Murphy OIL USA, et al., Defendants-Appellees, United States Court of Appeals, Fifth Circuit, No. 12-60291, Decided: May 14, 2013.

[52] See Climate Lawyers: http://climatelawyers.com/post/2012/03/22/Dismissed-Means-Dismissed-The-First-Climate-Change-Liability-Damages-Suit-Comer-v-Murphy-Oil-Is-Tossed-Again.aspx, last visited 29 April 2019.

[53] People of the State of California, ex rel. Edmund G. Brown Jr., Attorney General, Plaintiff—Appellant, v. General Motors Corporation, a Delaware Corporation; et al., corporation, Defendants—Appellees, United States Court of Appeals for the Ninth Circuit, No. 07-16908, June 24 2009.

[54] Hunter and Salzman (2007), p. 1756.

Another important case that has been debated and that presents tort law issues as well as human rights issues is *Kivalina v. ExxonMobil Corporation, et al*.,[55] filed on February 26, 2008, in the district court of Northern District of California.[56] The suit, based on the common law theory of nuisance, claims monetary damages from the energy industry for the destruction of Kivalina, Alaska by flooding caused by climate change.[57] The plaintiffs argued that the defendants' contribution to global warming through their emissions of carbon dioxide and other greenhouse gasses was substantially and unreasonably interfering with the plaintiffs' rights to use and enjoy public and private property in Kivalina.

The plaintiffs sought to recover monetary damages for the cost of relocating the entire village as a result of what they describe as "defendants' past and ongoing contributions to global warming". Kivalina also alleges that certain defendants conspired to suppress public awareness of the link between greenhouse gas emissions and global warming, thereby further contributing to the community's injuries.[58]

On 30 September 2009, the US District Court for the Northern District of California granted the defendants' motion to dismiss, agreeing with the defendants' arguments that the case raises nonjusticiable political questions and that the plaintiffs lack standing to bring the case. In November 2009, Kivalina Village appealed this dismissal to the Ninth Circuit Court of Appeals. In September 2012 the appeals court rejected Kivalina's appeal, affirming the lower court's dismissal of the case. In October 2012, Kivalina asked the appeals court to rehear the case *en banc* (before the full panel of appeals court judges), but the court refused to rehear the case. The plaintiffs filed an appeal with the Supreme Court in February 2013, but the court declined to hear the appeal.[59]

2.1.3 Public Trust Doctrine Cases

American common law has used since the 1970s the public trust doctrine in the field of environmental protection:[60]

> Based on classic trust law concepts, this traditional doctrine provides that the sovereign holds certain land or non-renewable resources in trust for its present and future citizens.[61]

[55] Native Vill. of Kivalina *v. ExxonMobil Corp.,* 663 F. Supp. 2d 863 (N.D. Cal. 2009), aff'd, 696 F.3d 849 (9th Cir. 2012).

[56] Gerrard and MacDougald (2013), p. 153.

[57] All the legal documents related to this case can be found at https://www.business-humanrights.org/en/kivalina-lawsuit-re-global-warming (last visited 13 January 2019).

[58] The case is discussed by Borràs (2012).

[59] Borràs (2012), p. 5.

[60] Lutz (1976).

[61] Lutz (1976), p. 469.

Inspired by a leading article by Joseph Sax,[62] several federal laws[63] have adopted the model of public trust as a tool for managing environmental resources[64] and other related problems.[65] The public trust doctrine has further been introduced in other contexts: common law[66] as well as civil law systems[67] have adopted this perspective as an efficient instrument to deal with ecological problems.[68] American scholars have also suggested that public trust might be considered as a viable approach to international environmental protection.[69]

In the last decade, scholars suggested that the public trust doctrine could be efficiently applied also in climate change context.[70]

Lastly, the public trust doctrine has been applied in the case *Juliana v. United States*.[71] In this case the action was brought by young plaintiffs also on behalf of future generations, asserting that the federal government violated their constitutional rights by causing dangerous carbon dioxide concentrations.[72] Plaintiffs in particular alleged that defendants' actions

> violate their substantive due process rights to life, liberty, and property, and that defendants have violated their obligation to hold certain natural resources in trust for the people and for future generations.

They sought a declaration that their rights had been violated and an order enjoining continued violation and requiring preparation of a plan to reduce emissions of CO_2.

While this litigation is in the early stages, it represents another effort to use the common law—in this case the public trust doctrine—to safeguard the environment for future generations.[73]

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[62] Sax (1970). On the origins of the public trust doctrine see further Araiza (2011), On the development of the public trust doctrine at the beginning of the 1970s compare Smythe (1972) and Dyer (1972).

[63] Like the *Comprehensive Environmental Response Compensation and Liability Act* (CERCLA) of 1980 or in the reform of the *National Environmental Policy Act* (NEPA) of 1970. See Chase (1991) and Meyers (1994).

[64] Meyers (1988), Campbell (1994), Hargrave (1992), Bader (1992), Ingram and Oggins (1992), Rieser (1991) and McCurdy (1988).

[65] Bukac (2015), p. 361.

[66] Razzaque (2001), pp. 221–234. The Supreme Court of India first recognized the public trust in a 1996 opinion that rooted the doctrine in common law and cited both Illinois Central Railroad and Professor Sax's article. See Bukac (2015), p. 373.

[67] Dyer (1972).

[68] See further Blumm and Guthrie (2012).

[69] Nanda and Ris Jr. (1976).

[70] Craig (2009), p. 781.

[71] Blumm and Wood (2017).

[72] All the documents of case are available at: http://climatecasechart.com/case/juliana-v-united-states/?cn-reloaded=1.

[73] Nevitt and Percival (2018), p. 491.

2.1.4 The Impacts and the Future of Climate Change Litigation

The strategies in and outcomes of climate change litigation in the US have been at the core of various researches.[74]

Scholars who have analysed the different impacts that climate change litigation has had, have pointed out that litigation focused not anymore only on *mitigation* issues (like greenhouse gas emissions and clean energy transition) but also, increasingly, on *adaptation* issues and disaster planning.[75]

As already pointed out,[76] climate change litigation was from the very beginning aimed at receiving a response from the institutional level, and not so much at receiving compensation. The effects of climate change *litigation* on the development of climate change *regulation* have been both direct and indirect.[77] *Direct regulatory impact* succeeds when litigation results in a formal change in climate change law and policy,[78] while litigation induces *indirect regulatory impacts* when it brings to behavioural and norm change.[79]

Although climate change litigation can also be used as a tool by antiregulatory interests, nowadays, climate change litigation is considered part of a multidimensional system of climate change governance.[80]

The experience of the United States is and remains "the epicentre of climate change litigation phenomenon",[81] where more than 500 cases are filed in court. Most of these can be considered a prototype, a source of inspiration, an opportunity to analyse benefits and limitations of courts "as sites for advancing regulation and accompanying social and behavioural change".[82]

Some specific features (like the failure to ratify the Kyoto Protocol and to enact comprehensive national climate legislation, or the presence of a particular litigious culture compared to other countries[83]), might be considered specific characteristics of the US legal system and can offer an explanation of the success of climate change litigation in this context. No other country has in fact embraced litigation as a tool of climate change governance to a greater extent than the United States.[84]

Although the US legal process is unique and these features will be difficult to find elsewhere, the problems and issues taken into consideration by climate change litigation are common to any other legal system in the world.

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[74] Bouwer (2018); McCormick (2018), p. 829.

[75] Peel and Osofsky (2015), p. 310.

[76] See *supra.*

[77] Peel and Osofsky (2015), p. 28.

[78] Peel and Osofsky (2015), p. 37.

[79] Peel and Osofsky (2015), p. 47.

[80] Peel and Osofsky (2015), p. 35.

[81] Peel and Osofsky (2015), p. 17.

[82] Peel and Osofsky (2015), p. 24.

[83] Peel and Osofsky (2015), p. 17.

[84] Peel and Osofsky (2015), p. 324.

2.2 The European Union

2.2.1 Claiming for Leadership in the Climate Change Diplomacy

In comparison to the United States, the European experience has taken a very different path. Since the late 1980s, the European Union has always wanted to play an increasingly active role in pursuing a coherent environmental and energy policy,[85] which is strictly connected with climate change regulation both at national and international level.[86]

This process has gradually led to an overall "greening" of European politics and to the "*Europeanization*" of the environmental policies of member states.[87]

With the Maastricht Treaty of 1992 and—even more—with the Amsterdam Treaty of 1997 the promotion of sustainable development must be integrated into the definition and implementation of all EU policies,[88] that has become EU's legal basis for international action.[89]

Looking to the relationship between international law and European law devoted to climate policy change issues, it is possible to note that "whereas EU climate policy and law were lagging behind international policy development until the early 2000s, they have moved ahead of the international framework since then".[90]

The EU has taken a leading role in the development and support for the Kyoto Protocol on climate change in 1997[91] and has further enhanced its leading role in international negotiations in order to fight climate change.[92]

Already in 2000, the problem was raised, if the will of Europe to become a leader in the climate change global governance was compatible with its own political and institutional circumstances, in order to be considered "*legitimate, credible and effective*".[93]

As a matter of fact, since then, the EU has invested very much on its own internal policies in order to become a "*legitimate, credible and effective*" leader, putting much effort in developing an effective EU climate policy and climate policy instruments.[94]

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[85] Peeters et al. (2012) and Pozzo (2009).

[86] Oberthür and Pallemaerts (2010).

[87] Torney (2015).

[88] Article 11 TFEU (ex Article 6 TEC): "*Environmental protection requirements must be integrated into the definition and implementation of the Union's policies and activities, in particular with a view to promoting sustainable development*".

[89] Lightfoot and Burchell (2005), p. 78.

[90] Oberthür and Pallemaerts (2010), p. 28.

[91] Lightfoot and Burchell (2005), p. 76.

[92] Van Schaik and Schunz (2012), pp. 169–186.

[93] Gupta and Grubb (2000), p. 4.

[94] Wettestad (2000).

In 2003, even before the entrance into force of the Kyoto Protocol, the EU adopted the Emissions Trading Directive (2003/87/EC),[95] which introduced in EU climate change law one of the market-based instruments foreseen at international level. The 2003/87 Directive was later amended by Directive 2004/101/EC linking the ETS to the other Kyoto Protocol project mechanisms, namely the CDM and JI.[96]

In 2007 the EU launched an ambitious "energy-climate change package",[97] that was further implemented by the climate and energy legislation adopted in 2008 and 2009, providing for further greenhouse gas (GHG) emission reductions.[98]

This has given rise to a number of concrete European initiatives in favour of power savings, renewable sources, emission reductions and green economy. In particular, the EU has adopted an extensive climate and energy policy package.[99]

The "*20-20-20 by 2020*" package, that established to achieve before 2020 a reduction of greenhouse gas emissions by at least 20% in comparison to 1990 levels, a 20% share of renewable energies in final energy consumption (as well as a 10% target for renewable fuels) and a 20% of savings on the projected EU final energy consumption in 2020, rendered the self-proclaimed leadership role of the EU more credible, even though EU climate policy may still be considered insufficient for effectively responding to the environmental challenge.[100]

With the entrance into force of Lisbon Treaty on December 1st 2009, a particular emphasis was given on the external dimension of the EU environmental policy.[101] The Treaty of Lisbon introduces an express link between sustainable development and EU external relations, stating that in its relations with the wider world, the Union shall contribute to the sustainable development of the Earth.[102]

Another explicit link with environmental protection is to be found in the General provisions on the union's external action, pointed out at Article 21 TEU. In particular, the Union shall define and pursue common policies and actions, and shall work for a high degree of cooperation in all fields of international relations, in order "to foster the sustainable economic, social and environmental development of developing countries, with the primary aim of eradicating poverty"[103] and "to help develop international measures to preserve and improve the quality of the environment and

[95] The long story of the Emissions Trading Directive is narrated by Jacometti (2010).

[96] Oberthür and Pallemaerts (2010).

[97] See Communication from the Commission to the European Council and the European Parliament: *An energy policy for Europe*, Brussels, 10.1.2007, COM(2007) 1 final; Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions: *Limiting global climate change to 2 degrees celsius the way ahead for 2020 and beyond,* 10.1.2007, COM(2007) 1 final.

[98] Oberthür and Pallemaerts (2010), p. 25.

[99] See for renewable energy: Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC.

[100] Torney (2015).

[101] Marín Durán and Morgera (2012), pp. 12 ff.

[102] Art. 3 (5) TEU.

[103] Art. 21 (2) TEU, letter (d).

the sustainable management of global natural resources, in order to ensure sustainable development."[104]

Among the principles that we find now in Title XX of the TFEU, dedicated to the "Environment", we find that the Union policy on the environment shall contribute to pursuit of "promoting measures at international level to deal with regional or worldwide environmental problems, and in particular combating climate change."[105]

As a matter of fact, the EU has claimed for itself an international leadership role with respect to the climate change issue[106] and has become one of the most enthusiastic supporters of an international binding treaty.[107]

Despite US opposition,[108] the EU has adopted an approach that promotes climate change regulation in different international contexts,[109] giving credit to the idea of wanting to *lead by example* the rest of the world.[110]

In conclusion, the European Union is intensively regulating the sector,[111] passing legislation aimed at mitigating the effects of climate changes.[112] At the same time, the Commission is pursuing a strategy of adaptation to climate change.[113] Within this new framework, a key role will be played by the new standards of liability for the damages resulting from climate changes, including the possibility to take out a specific insurance policy.

Due to this widespread regulation, it should not come as a surprise that climate change litigation did not develop as in the US until very recently.

Nevertheless, in the last years the unsatisfaction of European citizens towards the results of EU climate change policies resulted in new judiciary initiatives, among which the case Urgenda has risen to the fore.[114]

2.2.2 Climate Change Litigation in Europe

Besides the Urgenda case in the Netherlands that was successful also in Appeal, and few others,[115] it is necessary to note that in 2018 a first European case was brought in the EU General Court seeking to compel the EU to take more stringent greenhouse gas emissions (GHG) reductions. The plaintiffs (ten families, including

[104] Art. 21 (2) TEU, letter (f).

[105] Art. 191 (1) TFEU.

[106] Torney (2015), p. 20.

[107] Van Schaik and Schunz (2012); Schunz (2009); Oberthür (2009); Oberthür and Kelly (2008); Van Schaik (2010), p. 251.

[108] Harris (2000).

[109] Oberthür and Pallemaerts (2010), p. 27; Compare further Schreurs and Tiberghien (2010), p. 23.

[110] Van Schaik and Schunz (2012), p. 169.

[111] Oberthür and Pallemaerts (2010).

[112] Pallemaerts (2004).

[113] *An EU Strategy on Adaptation to Climate Change*, COM (2013) 216.

[114] On the Urgenda case see the Dutch Report by Jonathan Verschuuren. Compare further De Graaf and Jans (2015), van Zeben (2015), Lin (2015), Cox (2016) and Roy and Woerdman (2016).

[115] See e.g. the Belgian Report in this Book.

children, from Portugal, Germany, France, Italy, Romania, Kenya, Fiji, and the Swedish Sami Youth Association Sáminuorra) alleged that the EU's existing target to reduce domestic GHG emissions by 40% by 2030, as compared to 1990 levels, had to be considered insufficient to avoid dangerous climate change and was threatening plaintiffs' fundamental rights of life, health, occupation, and property. In *Armando Ferrão Carvalho and Others v. The European Parliament and the Council*, the plaintiffs presented two requests. In the first place, they brought a nullification action, asking the court to declare three EU legal acts as void for failing to set adequate GHG emissions targets. The three EU legal acts are: Directive 2003/87/EC governing emissions from large power generation installations (ETS); regulation 2018/EU on emissions from industry, transport, buildings, agriculture, and etc. (ESR); and regulation 2018/EU on emissions from and removals by land use, land use change, and forestry (LULUCF). Plaintiffs argued that inadequate emissions reductions were violating higher order laws that protect fundamental rights to health, education, occupation, and equal treatment as well as provide obligations to protect the environment. These higher rank laws include: the EU Charter of Fundamental Rights (ChFR), the Treaty on the Functioning of the European Union (TFEU), the United Nations Framework Convention on Climate Change (UNFCCC), and the Paris Agreement. Plaintiffs asked the Court to order that the three emissions reductions laws remain in force until improved versions of the Acts can be enacted. Art. 263 of the Treaty on the Functioning of the EU (TFEU) is the basis for this procedural action.

The second action concerned non-contractual liability. Article 340 of the TFEU provides a mechanism for injunctive relief when three conditions are met: (1) there is an unlawful act by the EU institution(s), (2) the unlawful act is a serious breach of a law that protects individual rights, and (3) there is a sufficient causal link between the breach and the damages.

The plaintiffs finally demanded as a relief an injunction to compel the EU to set more stringent GHG emissions reductions targets through the existing framework of the ETS, ESR and LULUCF regimes in order to bring the EU into compliance with its legal obligations. Plaintiffs asserted this would require a 50–60% reduction in GHG emissions below 1990 levels by 2030 or whatever level the Court finds appropriate.

2.3 The Spreading Out of Climate Change Litigation

As it is clearly demonstrated by the various Reports of this book, climate change litigation is developing in various jurisdictions. The nature of these suits varies widely across countries, reflecting each jurisdiction's unique legislative and regulatory framework, energy portfolio, and legal system.[116]

[116] Wilensky (2015).

There are some legal systems that have been particularly vivacious in introducing climate change litigation, like Australia and New Zealand, that might be also understood as being both common law systems where ideas, taxonomies and arguments developed in the US were easy to take over.

But the success of climate change litigation is not limited to the Western industrialized world, as the Leghari case discussed in a Pakistani Court in 2015 easily demonstrates, or only to common law countries, as the quoted European cases point out.

In *Leghari v. Federation of Pakistan,*[117] an appellate court in Pakistan granted the claims of Ashgar Leghari, a Pakistani farmer, who had sued the national government for failure to carry out the National Climate Change Policy of 2012 and the Framework for Implementation of Climate Change Policy.[118]

The court, citing domestic and international legal principles, determined that "the delay and lethargy of the State in implementing the Framework offend the fundamental rights of the citizens." As a remedy**,** the court directed several government ministries to each nominate "a climate change focal person" to help ensure the implementation of the Framework, and to present a list of action points by December 31, 2015; and created a Climate Change Commission composed of representatives of key ministries, NGOs, and technical experts to monitor the government's progress.

The vast majority of lawsuits in countries with the most extensive climate change litigation, like the US and Australia "have involved statutory law causes of action alleging that governments failed to take climate change considerations adequately into account in their decision-making process."[119]

Anyway, the Urgenda case, the Leghari case as well as the 2005 petition filed by the Inter-American Commission on Human Rights,[120] show how climate change lawsuits can be based on *rights violation,* which represents a turn away from the more conventional modes of litigation.[121]

The spreading out of climate change litigation appears to be an interesting field for comparative law research. In this perspective, comparative law tools could enhance the understanding of legal transplants in environmental law and provide a new approach to the development of global environmental law.

[117] Asghar Leghari v. Federation of Pakistan (W.P. No. 25501/2015), Lahore High Court Green Bench, https://elaw.org/PK_AsgharLeghari_v_Pakistan_2015.

[118] Peel and Osofsky (2018).

[119] Peel and Osofsky (2018), p. 39.

[120] See above.

[121] Peel and Osofsky (2018), p. 39.

2.4 Legal Transplant in the Environmental Field

Comparative law scholars have always been interested in the problem of legal transplants,[122] a phenomenon with which we usually identify the process of imitation from one legal system to another of norms, institutions or legal concepts.[123]

The phenomenon can be analysed from different points of view,[124] taking as its object of analysis—from time to time—the reason leading to the transplant, the phenomenon of adaptation to the new social and regulatory context, the modernization of legal language.[125]

Comparative lawyers have highlighted how traditionally the deep motivations that have led to the adoption of foreign rules or institutions, can be traced back either to the *prestige*[126] that a legal model rises in a given moment in history, or to *imposition.*[127]

Both the prestige and the imposition are also mere keys to interprete a phenomenon that develops continuously and which can therefore be reinterpreted in the light of the most recent developments.

The idea of *prestige* has been reinterpreted in recent decades in the light of the criterion of *economic efficiency*[128] (true or presumed) of a given legal model, justifying its reception in another legal system or as a valid reason for imposing it in a supranational or international context.

The same idea of *imposition*, once reconnected with the Colonial period, seems nowadays completely outdated. Nevertheless, the idea of imposition might also be reinterpreted in the light of the current circumstances. For example, we have to remember that the idea of taking into consideration environmental protection and climate change in external relations, "has arguably increased the temptation for the EU to use the size of its markets to guide the international community towards more effective action against climate change through unilateral measure."[129]

A vast literature points out how Europe has become in this sector a *normative power,* able to impose its own perspective and regulation on how climate change

[122] On this point, the bibliography is now boundless. To underline the relevance of the theme, the International Academy of Comparative Law dedicated a whole session to the theme of "*Legal Cultures and Legal Transplants*", published in the Isaidat Law Review, (2011) Volume 1—Special Issue 1.

[123] Watson (1974).

[124] The Journal *Theoretical Inquiries in Law*, dedicates its Volume 10 (Number 2, July 2009) to the topic of *Histories of Legal Transplantations,* where several episodes of circulation of legal models are taken into consideration, highlighting the different reasons. See for example Harris and Crystal (2009), Kirov (2009) and Graziadei (2009).

[125] Timoteo (2018).

[126] On the reception of the German Pandectist School in Italy, see Furfaro (2012).

[127] On the reception of the common law in India, see Glenn (2000), p. 273 ss.

[128] Mattei (1994); Graziadei (2006), p. 441.

[129] Kulovesi (2012).

should be taken into consideration,[130] becoming a global producer of norms in this as in other important fields.[131]

From another point of view, it can be observed, how legal transplant must necessarily come to terms with the social substratum of the order in which this model is grafted, with consequent corrections or divergences with respect to the original model.

Today the reasons that drive the circulation of models can be very heterogeneous and new methods of analyzing the phenomenon have been suggested.[132]

An important role is played today by international cooperation, which in recent decades has affected many aspects of the legislation of emerging economies.[133] As the European experience can teach us, environmental cooperation has become one of the leading instruments in inducing legal transplant, as "environmental integration clauses are included in most EU agreement of a general nature."[134]

Analyzing the profound reasons that may lead to the phenomenon of legal transplants is not a merely academic exercise.[135] A greater understanding of *legal transplants* in sectors that are considered homologous in different parts of the world could convince national and international institutions that some goals of reform can be more easily achieved through the acquisition of legal models already tested in others social and economic contexts.[136]

In recent decades this phenomenon has become particularly evident when it comes to tools and regulations of environmental law.

In this field, legal problems are closely intertwined with aspects of the natural sciences that present themselves as universal and to economic problems that appear to be common in the globalized world,[137] whereas the link to a particular cultural, social or legal background seems to fade away.

It has also been pointed out[138] that legal transplants might be conveyed through private contracting as well. In the globalized world Private actors have transplanted a variety of private and public laws across jurisdictions through contracting for over a decade.

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[130] Manners (2002), Lightfoot and Burchell (2005), and Braun (2014).

[131] De Morpurgo (2013).

[132] Graziadei (2006), p. 441.

[133] Delisle(1999) and Wheeler (2013).

[134] Marín Durán and Morgera (2012), p. 57.

[135] Graziadei (2009), p. 723.

[136] As Graziadei (2009), p. 697 recalls: "*The question whether law can be transferred from one place to another turns out to be a question of the highest importance, whether these actors are interested in political reform, economic growth, social progress, or less beneficial ends. Unsurprisingly Institutions like the World Bank now take an interest in the literature on legal transplants and the topic is featured regularly in the study of economic growth and political change, as every student of law and development knows*".

[137] Wiener (2001).

[138] Lin (2009).

In particular codes of vendor conduct in global supply chains have shown to be an important instrument in transplanting environmental protection standards: "Codes of vendor conduct require suppliers to meet certain labor and environmental protection standards in the production process. The labor standards generally include topics concerning child labor, forced labor, health and safety measures in workplaces, freedom of association and right to collective bargaining, discrimination, working hours, and compensation. The environmental standards usually involve hazardous substance management (e.g., safe handling, shipping, storage, recycling, and disposal of hazardous materials), waste management, air emission management, energy efficiency measures, and other pollution prevention requirements".[139]

Legal transplants in the environmental field are continuously increasing and present their own characteristics.

At first glance, the imitation of environmental protection models should be facilitated by a whole series of heterogeneous reasons.

Firstly, the rules for regulating environmental protection appear to be characterized by a high technical content, which is not—at least generally—influencing values considered "fundamental" in the various legal systems.

On the one side, it is true that transplanted norms or instruments cannot remain the same once they are placed in their context of arrival, so much so that some scholars have pointed out that legal transplants are *impossible.*[140] On the other side, it is also likely that these are able to solve the problems for which they were originally designed, in case they prove to be similar.

Rules and institutions borrowed in the environmental field will also have to deal with the particular legal process of the target system and with a particular *path dependence* that will vary from context to context, as well as with factors that will surely affect the efficacy of the transplanted rule or instrument.

Moreover, here as well as in other contexts, the problem of legal translation—if not adequately addressed—can trigger a real conceptual tug of wars of uncertain results about the real applicative scope of the "imported" norms or institutes. This is all the more true if the circulation deals with concepts intimately connected to Western culture that do not easily find a lexical, but also cultural, translation in the system of arrival.[141]

In the field of environmental law, however, the fact that the problems to be addressed are—in more than one respect—intimately linked to scientific knowledge, and cover for this reason, a certain degree of technicality, will lead, in a greater number of cases, to new phenomena of legal transplants.

[139] Lin (2009), p. 717.

[140] Legrand (1997).

[141] See for example Timoteo (2015), p. 121.

Furthermore, legal transplants of environmental protection models has been strongly characterized and—consequently—also influenced by the globalized perception of the environmental phenomenon, and by that of its protection.[142]

In the last decades, we are witnessing the development of a body of rules, which tends towards a progressive approaching in the development of common operational choices in addressing environmental problems. This certainly derives from the fact that the environmental problem, in addition to having affected all legal systems in an almost contemporary way, is suitable to involve by its very nature multiple countries at the same time.[143]

In particular, with the Rio Conference of 1992,[144] a new era of international environmental law begins:[145] international cooperation is not anymore referred only to the prevention of transboundary issues, but concerns global issues, that that can jeopardize natural balances essential for the maintenance of the conditions of life on earth.[146]

With the drafting of large international conventions, homogeneous rules and standards are developed. It is not therefore difficult to find a rule formulated in a similar way in the United States, the European Union or India. This cannot come as a surprise: to similar and common problems, not included in the casts of the different legal traditions, the different legal systems have developed similar answers.

Other factors that might drive legal transplants in the environmental field can also be linked to the formation of regulations at the regional supranational level, as in the case of the EU. In this case, legal transplants might be induced by the imposition of harmonized supranational legislation, that finds its roots in one or more advanced legal systems that aims at creating common conditions in all Member States.[147]

This, on the one hand, corresponds to a specific political will, and in particular to the principle of environmental protection adopted by the Charter of Nice,[148] and, on

[142] Yang and Percival (2009), Percival (2007, 2009, 2011) and Wiener (2001).

[143] Sand (2007); Pozzo (2010), p. 1161 ss.

[144] Pallemaerts (1992) and Weiss (1992).

[145] Birnie (1977).

[146] Palmer (1992).

[147] The environmental competences enter the Treaty of Rome with the Single European Act of 1987, which inserts a new Title VII, dedicated to the "Environment", consisting of three articles: 130R, 130S and 130T. The Single European Act states that action by the Community relating to the environment shall be based on the principles that preventive action should be taken that environmental damage should as priority be rectified at source and that the polluter should pay. It further provides that environmental protection requirements shall be component of the Community's other policies.

[148] Art. 37 Nice Charter. Environmental Protection: "*A high level of environmental protection and the improvement of the quality of the environment must be integrated into the policies of the Union and ensured in accordance with the principle of sustainable development*".

the other hand, to the need not to create obstacles to a market that is based on free competition rules.[149]

In this context, there is the search for effective and tested environmental reference models by developing economies that want to offer reliability to foreign investors. In addition to the rules, even the practices of large multinational companies can have an impact on facilitating the circulation of Western models in emerging economies. In another perspective, we can see the willingness by countries that have undergone a rapid process of democratization, to refer to authoritative models, mostly arising from Western or international models, in the field of protection of human rights and of the environment.

Given the complexity of the questions at stake, I would hardly agree with the perspective that comparative law methodology is inadequate to tackle the problems connected with global environmental law.

Two prominent scholars have pointed out that

> while comparative law scholars in the past might reasonably have described the movement and transfer of concepts from one national legal system to another or to the international systems as acts of "borrowing," global environmental law indicates that this description has become inapposite. Trends such as convergence, integration, and harmonization are creating a few principal approaches to regulation that are being embraced with local variations, blurring traditional distinctions between national and international law. Environmental legal principles can no longer be seen as belonging to any one particular system, suggesting that their transfer is an act of "lending." Like the many global environmental goods that they protect, these legal principles have become part of the global commons. As part of a system of global law, they are at home everywhere.[150]

I here support a different view, according to which comparative law methodology offers a very efficient perspective on how legal transplants develop in the environmental field.

While recognizing that environmental law has increasingly become *global* in recent times, the fact remains that its application is *local*. In this dimension, not only the blackletter of the law counts, but also and above all the existence of tools to make it effective. That is why it is important to analyse the legal system, in which it will be imbedded, as a whole, taking into account its legal and cultural background.

As the judges of the Indian Supreme Court have magisterially reminded us:

> If the mere enactment of laws relating to the protection of environment was to ensure a clean and pollution-free environment, then India would, perhaps, be the least polluted country in the world. But this is not so. There are stated to be over 200 Central and State statutes which have at least some concern with environment protection, either directly or indirectly.

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[149] In the Preamble to the TEU, it is true that one of the objectives of the European Union should be "to promote the economic and social progress of their peoples, taking into account the principle of sustainable development in the context of the creation of the internal market and the strengthening of cohesion and of environmental protection". In Article. 3, paragraph 3, TEU also states that the Union "*strives for the sustainable development of Europe, based on balanced economic growth and price stability, on a highly competitive social market economy, which aims at full employment and social progress, and a high level of protection and improvement of the quality of the environment*".

[150] Yang and Percival (2009), p. 664.

> The plethora of such enactments has, unfortunately, not resulted in preventing environmental degradation which on the contrary, has increased over the years.[151]

In this perspective, comparative law methodology, I believe, will deliver efficient tools to investigate the past, the present and the future of climate change litigation.

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