
Climate Change Liability – Variations on Themes Across the Atlantic

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Abstract

In recent years the United States Supreme Court has delivered two significant rulings, *Massachusetts v. EPA* and *AEP v. Connecticut*, concerning regulating and limiting greenhouse gas emissions. Since federal climate change legislation has stalled in Congress, these two rulings are all the more significant in setting the stage for how greenhouse gas emissions are regulated in the United States. According to the rulings, greenhouse gas emissions are covered by the Clean Air Act and thus fall under the regulatory jurisdiction of the Environmental Protection Agency. This in effect cancels the possibility for private enforcement of emission limits on greenhouse gases under federal nuisance law. No similar groundbreaking precedents have been issued by the high courts in Finland. But in contrast with U.S. law, it seems that greenhouse gas emissions would not be covered by the Finnish Environmental Protection Act and thus a plaintiff could under Finnish nuisance law pursue an injunction case against an emitter of greenhouse gases. Likewise, a plaintiff could file a claim for damages under the Finnish Act on Compensation for Environmental Damage. In practice, however, a plaintiff's injunction case as well as tort liability case seems to be doomed for failure under Finnish law. Requirements set by the burden of proof and causality, among others, mean that Finnish nuisance and tort law are far from be-

ing effective means of enforcement or redress in the context of climate change liability.

1 Introduction

This paper sets out to examine certain key issues when assessing remedies available for a plaintiff (be it a natural person, corporation or other) in case of nuisance, damage, or loss that has allegedly been caused by a defendant's greenhouse gas emissions, i.e. the fact that the defendant has, at least to some extent, contributed to climate change. Legislative options, public policy enforcement or administrative law is beyond the scope of this paper. Thus the possibility of authorities to enforce actions against polluters is not as such directly examined. However, as will be evident below, the jurisdiction of the authorities does play a role in setting the boundaries for private action.

A further delimitation of the scope of this paper is the jurisdiction that is examined. The purpose of this paper is to take a closer look at applicable Finnish law when it comes to redress against emissions of greenhouse gases. This examination is carried out in the light of key case law of the U.S. Supreme Court on the subject matter. The issue of climate change liability or the authority to regulate greenhouse gas emissions under pollution abatement legislation or environmental protection legislation has been the subject of two rulings of the U.S. Supreme Court, *Massachusetts v. EPA*² and *AEP v. Con-*

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² *Massachusetts v. Environmental Protection Agency*, 549 U.S. 497 (2007).

*necticut*³. Similar issues have not ended up on the dockets of the Finnish Supreme Court or the Finnish Supreme Administrative Court, which means that legal precedents are lacking in the jurisdiction more familiar to the author of this paper. Therefore there is certainly room for taking a closer look at what might be the likely outcome of hypothetical cases in Finland, how issues could be approached by Finnish courts, as well as what factors would most probably be taken into account if cases of the same nature as those before the U.S. Supreme Court were to end up before Finnish courts. For the sake of clarity, it can be noted that U.S. law is not as such used for the purpose of recommending any changes in the Finnish legal system, nor is any thorough comparative analysis on U.S. law carried out in this paper.

The following discussion in this paper will be divided into two structural parts. First, the possibility of obtaining an injunction will be discussed. Injunctions are discussed in the context of both Finnish private and to some extent also public nuisance law, but as for the latter only in the context of the possibility of an individual, i.e. not the public authority, to gain an injunction against a defendant. Second, the issue of claims for damages under tort law will be discussed, but as for Finnish law the discussion is mostly limited to the Act on Compensation for Environmental Damage,⁴ which would probably be the likely option for a plaintiff to try and base his or her case. These two themes are intertwined as will be evident from the discussion below, but for the sake of clarity it is better to keep them apart.

2 Injunction

2.1 Are greenhouse gases pollutants?

During the late 1990s and lasting for approximately one decade a legal debate over whether carbon dioxide or other greenhouse gases were air pollutants within the meaning of the Clean Air Act (“CAA”) moved back and forth in the U.S. Under the CAA the Environmental Protection Agency (“EPA”) has regulatory authority over air pollutants. Thus answering the question was vital with regard to jurisdiction over climate change mitigation under federal law in force in the U.S. During President Clinton’s administration the EPA held the view that greenhouse gases were indeed air pollutants. However, in 2001 the newly appointed General Counsel of the EPA, Robert Fabricant, issued an opinion that this conclusion was no longer considered as correct. Fabricant argued that the EPA lacked authority to regulate greenhouse gas emissions under the CAA. This interpretation was contested in court and the case went all the way to the U.S. Supreme Court.⁵ In *Massachusetts v. EPA* the Supreme Court indeed found that greenhouse gases are air pollutants within the context of the CAA and that the EPA has regulatory authority over such emissions.

As in the U.S. a similar question regarding Finnish environmental legislation could be raised regarding whether greenhouse gas emissions should be regarded as pollutants or not. Activities that could cause environmental pollution are as a rule under the regulatory scheme of the Finnish Environmental Protection Act⁶. In the Act, “pollution” is a rather broadly defined concept. According to Section 3(1) of the Finnish

³ *American Electric Power Co., Inc. v. Connecticut*, 564 U.S. 10-174 (2011).

⁴ Act 19.8.1994/737.

⁵ For a description of the history leading up to *Massachusetts v. EPA* see e.g. Martel, Jonathan S. and Stelcen, Kerri L. in *Global Climate Change and U.S. Law* (Michael B. Gerrard, Editor), American Bar Association 2007, p. 137–144 and Mank, Bradford C, *ibidem*, p. 191–193.

⁶ Act 4.2.2000/86.

Environmental Protection Act pollution refers to, *inter alia*, emissions that, among others, cause harm to health or to nature and its functioning, decrease the general amenity of the environment or degenerates special cultural values, or cause damage or harm property or its use. If the definition of pollution is not met as for a certain activity, the authorities have limited powers to take enforcement actions against the activity under the Environmental Protection Act.

Standard practice of Finnish environmental authorities has been that greenhouse gas emissions are generally not considered as pollutants based on their effects on global warming or climate change alone. A Government Bill concerning an amendment to the Finnish Environmental Protection Act takes note of this administrative practice and also states that the purpose of the Act is not to set emission limit values on greenhouse gas emissions.⁷ It has also been pointed out that considering climate change impacts to be pollution impacts, within the context of the Environmental Protection Act, would be stretching the boundaries of the Act too far.⁸ Therefore the conclusion would be that emissions contributing to climate change are not pollution in the context of the Finnish Environmental Protection Act.

Another issue to be taken into account is that the Finnish legal situation differs from the one in the U.S. as for one further aspect. The EU Emissions Trading Scheme (EU ETS), which is set up under the Emissions Trading Directive (2003/87/EC), includes a provision on the permissibility of limiting greenhouse gas emissions, which are included in the EU ETS. Under Article 26 of the said Directive an “environmental permit shall not in-

clude an emission limit value for direct emissions of [such greenhouse gas emissions] unless it is necessary to ensure that no significant local pollution is caused”. Similarly the Finnish Environmental Protection Act includes an explicit ban on setting emission limit values on greenhouse gas emissions under the same circumstances and exceptions. Thus Finland could under EU law as a rule only regulate greenhouse gas emissions in the non-EU ETS sectors unless Article 193 of the Treaty on the Functioning of the European Union would be evoked.

2.2 Displacement of nuisance law

Even though the U.S. and Finnish legal systems are very different in many respects, the answer to the question of administrative authority over greenhouse gas emissions is crucial in both systems in respect of remedies against environmental nuisance. This is due to the fact that in both legal systems administrative authority precludes an injunction based on nuisance. An interesting comparative point in this regard is the combined effect of the *Massachusetts v. EPA* and *AEP v. Connecticut* rulings. In *AEP v. Connecticut* the original plaintiffs (who were respondents before the Supreme Court) had sought an injunction to cap and subsequently reduce the emissions of five defendants that emitted CO₂ from their installations.

The U.S. Supreme Court had previously found that the EPA had been delegated by Congress with the authority to regulate greenhouse gas emissions (*Massachusetts v. EPA*). This in effect displaced the application of federal common law on nuisance (*AEP v. Connecticut*). As noted by Adler, prevailing in one of the two mentioned cases ultimately meant defeat in the other as the cases in this sense extinguished each other.⁹

⁷ Government Bill HE 49/2004, p. 74.

⁸ Pekka Vihervuori, *Utsläpp och utsläpp – begreppsförvirring och konflikter mellan miljöskydd och klimatskydd*, p. 547–548, the article is published in “Pro Natura – Festskrift til Hans Christian Bugge”, 2012.

⁹ Jonathan H. Adler, *A Tale of Two Climate Cases*, 121 YALE L.J. ONLINE 109 (2011), <http://yalelawjournal>.

The ruling in *AEP v. Connecticut* bars a claimant from being able to successfully sue a defendant and receive a ruling by a court of law that would set limits on the defendant's greenhouse gas emissions based on federal common law on nuisance. In Finland the same outcome follows from statutory law. According to Section 19 of the Finnish Act on Neighbor Relations¹⁰ a court cannot grant an injunction against an operation that requires a permit or notification under the Finnish Environmental Protection Act. The practical difference between the U.S. and Finnish legal systems in this respect is that there is so far no similar Finnish precedent regarding the authority to regulate greenhouse gas emissions as is the case with *Massachusetts v. EPA* in the U.S. However, Finnish administrative practice is the opposite to *Massachusetts v. EPA* and thus environmental authorities do not have authority to regulate greenhouse gas emissions. Therefore the door for nuisance law seems to remain open in the Finnish context.

Despite of the above, the issue in the Finnish context is unfortunately rather muddled, since a permit under the Finnish Environmental Protection Act is not only required for activities causing pollution (within the definition of the Act) but also for activities causing nuisance as defined in the Finnish Act on Neighbor Relations. Thus one seems to end up in a somewhat irritating chain of argumentation. First, greenhouse gas emissions are not pollution under the definition of the Environmental Protection Act and thus beyond the general scope of the Act. Second, if greenhouse gas emissions cause nuisance, an environmental permit under the Environmental Protection Act is required. And third, if an environmental permit is required, a plaintiff cannot be granted relief against the nuisance under the Act on

Neighbor Relations. In this case it could be argued that the general applicability of the Finnish Environmental Protection Act, i.e. its link to the legal definition of pollution takes precedent. Since greenhouse gas emissions are not pollution under the act an environmental permit would not be required if above mentioned nuisance is caused as a result of greenhouse gas emissions contributing to climate change. This conclusion is also supported by the Government Bill of the Act although the issue is not commented upon explicitly.¹¹ Thus Finnish nuisance law would seem to be available for a plaintiff regarding climate change induced nuisance. However, this would just be the first step in a plaintiff's case, taking him or her beyond the question of admissibility before a court of law. It is a different matter to obtain a successful main ruling in such a case.

At this point it can be further noted that even though the availability of Finnish nuisance law would be lacking for plaintiffs, this would not mean that they would lack a legal remedy against polluters. Under Section 92 of the Environmental Protection Act a plaintiff with standing or the local municipality may petition the environmental authorities to take enforcement action against an emitter allegedly causing nuisance that is illegal under the Finnish Environmental Protection Act. In case of illegality, the authorities would be required to take action against the party causing the nuisance. Thus a plaintiff would seem to have procedural avenues for an injunction irrespective of whether alleged nuisance caused by greenhouse gas emissions are regarded as falling under the scope of the Finnish Environmental Protection Act or the Finnish Act on Neighbor Relations.

The procedural remedies provided by the Finnish Act on Neighbor Relations are to my un-

org/2011/09/13/adler.html.

¹⁰ Act 13.2.1920/26.

¹¹ Government Bill HE 84/1999, p. 56–57 and 122.

derstanding rather seldom used today, at least independently. This is due to the fact that the Finnish Environmental Protection Act and its definition on pollution cover many of the different variants of nuisance, meaning that environmental permitting has largely taken over as a tool for controlling nuisance. Furthermore, the Finnish Act on Compensation for Environmental Damage applies to claims for damages concerning environmental damage and damage claims nowadays fall under the scope of the latter act.

Under Section 17 of the Act on Neighbor Relations it is unlawful to use a real estate or property in a manner that causes unreasonable nuisance to a neighbor or close-by real estate. The unreasonableness is evaluated based on, among others, local circumstances, the commonness, strength and duration of the nuisance as well as the commencement of the nuisance. A successful injunction case would most likely boil down to the issue of proof. A plaintiff needs to show that the defendant's action or inaction is causing nuisance. Thus questions of burden of proof and causality as well as showing that an injunction against the defendant would bring relief (i.e. that the defendant is solely or to a sufficient degree responsible for the nuisance) would evidently be raised in a court case. Since these questions are very similar to the ones that would be raised in a tort law case, a further review of them is made below in connection with the arguments concerning tort law (sections 3.3 and 3.4). As a preview to the following discussion it can be noted that a plaintiff would not face an easy task as for proving causality and guilt. This is further aggravated by the fact that the plaintiff would under the Act on Neighbor Relations need to sue a neighboring emitter or an emitter that is located close by. Even though what constitutes as being "close by" is not defined, it is clear that the defendant could not be located in another region. Therefore relief for a plaintiff would be based on

the rather arbitrary factor of being located close by to the emitter.

As a last point regarding the division of powers between the Finnish Act on Neighbor Relations and the Environmental Protection Act one should take note that emissions are under many circumstances composed of not one uniform emission, but several mixed substances that are emitted due to industrial or other processes. For example burning fossil fuels causes also other emissions than greenhouse gas emissions. Other emissions, e.g. particles or SO_x/NO_x, are also reduced in case fossil fuel burning is reduced. It is thus possible to look at many greenhouse gas emission sources from a wider perspective and acknowledge that, all things being equal, harmful emissions would be reduced across the board if burning of fossil fuels would be curtailed. Plaintiffs thus hold a potential for arguing that a certain redress would not only alleviate their injury allegedly caused by greenhouse gas emissions and climate change, but also injury caused by other pollutants.¹²

However, the Finnish system of divided powers as for injunctions makes the above-mentioned case a bit complicated from a procedural point of view that could effectively hamper the successful implementation of the above possibility. For example, an industrial installation could be operating under an environmental permit that would regulate other emissions except emissions of greenhouse gases. In such a case a plaintiff could end up in a procedurally two-tiered litigation consisting of 1) an injunction lawsuit under the Act on Neighbor Relations as for greenhouse gas emissions, and, 2) a petition under the Environmental Protection Act as for emissions

¹² Daniel A. Farber, *Standing on Hot Air: American Electric Power and the Bankruptcy of Standing Doctrine*, 121 YALE L.J. ONLINE 121 (2011), <http://yalelawjournal.org/2011/09/13/farber.html>, p. 123–124.

covered by the environmental permit. This two-tiered approach would naturally be avoided in case greenhouse gas emissions would be regarded as falling within the regulatory scheme of the Environmental Protection Act. Furthermore, the above-mentioned limits set by the Emissions Trading Directive regarding greenhouse gas emissions covered by the EU ETS should be borne in mind.

2.3 A matter for the courts or not?

Political questions should not be decided in courts but should in a democratic society rather be left to the elected branches. This is in a nutshell the so called political question doctrine that delimits the jurisdiction of courts in the United States. In *AEP v. Connecticut*¹³ the U.S. Supreme Court did, however, not directly address the issue whether climate change related litigation would fall within the scope of the political question doctrine, although the Court did consider regulatory action as preferable to court action.¹⁴

The necessity of making an initial policy determination indicates that a case is non-justiciable.¹⁵ In *AEP v. Connecticut* the lower court, i.e. the Court of Appeals, came to an explicit conclusion regarding non-justiciability and found that the plaintiffs' case was justiciable.¹⁶

Although not identical, the Finnish system of division of competence between the courts and the executive or the legislature is in a way similar to the U.S. system. For example, the Finnish Supreme Administrative Court must instead of issuing a ruling on a matter refer the case to the Finnish Council of State (i.e. the government), if the issue concerns a non-justiciable question. What exactly falls within the realm of "non-justiciable" is of course debatable and in the end it is up to the Supreme Administrative Court to decide whether it has jurisdiction or not as there is no possibility of appealing the decision of the Court.

As it seems that a nuisance case in Finland should be pursued under the Finnish Act on Neighbor Relations instead of the Finnish Environmental Protection Act, jurisdiction over a court case would rest among the civil courts, not the administrative courts. Therefore ultimate power to rule on such a case is vested with the Finnish Supreme Court, which cannot refer a matter to the Finnish Council of State, but has to give a ruling on the matter (provided that the Supreme Court grants a leave of appeal). Thus the Finnish courts would probably try a nuisance case similar to *AEP v. Connecticut*. However, Finnish courts would not have unlimited powers either, since a fundamental cornerstone of the division of powers between different branches of a state's functions call for Finnish courts to refrain from actions that would fall within the competence of the legislature. Therefore Finnish courts would not go beyond statutory law and legal precedents. Where exactly a boundary has been crossed in these respects is very much open to debate, and, without a precedent regarding climate change, conclusions presented in this paper need to be read accordingly.

¹³ *American Electric Power Co., Inc. v. Connecticut*, 564 U.S. 10-174 (2011). Regarding a general overview of *AEP v. Connecticut* see e.g. Hari M. Osofsky, *AEP v. Connecticut's Implications for the Future of Climate Change Litigation*, 121 YALE L.J. ONLINE 101 (2011), <http://yalelawjournal.org/2011/09/13/osofsky.html>.

¹⁴ James R. May, *AEP v. Connecticut and the Future of the Political Question Doctrine*, 121 YALE L.J. ONLINE 127 (2011), <http://yalelawjournal.org/2011/09/13/may.html>.

¹⁵ Meltz, Robert: Report for Congree: Climate Change Litigation: A Growing Phenomenon (updated April 7, 2008), Washington D.C.: Congressional Research Service, 2008, p. 25–26, available at http://www.elaw.org/system/files/CRS_4_7_08.pdf [reviewed 17 Oct. 2011].

¹⁶ *Connecticut v American Electric Power Co* 582 F 3d 309 (2nd Cir 2009), p. 323–332.

3 Damages

3.1 Caught in the crossfire between private law and administrative law

In the case of injunctions it is evident from the above discussion that court enforced injunctions based on nuisance law can be heading for a collision course with regulatory measures, the adoption of which belongs to environmental authorities or the legislature. Under both U.S. federal nuisance law and Finnish nuisance law the regulatory system prevails, i.e. the regulatory authority of the Environmental Protection Agency in the U.S. and the enforcement authority of environmental authorities under the Environmental Protection Act in Finland.

But, also in the U.S. context it is unclear whether the above mentioned division of competence should categorically bar a plaintiff from seeking any relief under nuisance law. Despite of regulatory measures regarding, for example, emissions, a plaintiff may also have a desire to bring its particular injuries before a court and claim compensation for damage.¹⁷ *AEP v. Connecticut* did not directly answer whether this is possible, and as such the issue remains undecided by a U.S. Supreme Court ruling. However, the U.S. Supreme Court might well end up ruling on the matter in the future.¹⁸

In Finland the lawfulness of an act or omission does not deny the possibility to be awarded compensation for damage under the Finnish Act on Compensation for Environmental Damage. Thus it would indeed seem that no procedural hurdle in this respect exists with regard to a claim for damages. On the contrary, it would seem that even if an injunction could be or would

have been sought based on the Finnish Environmental Protection Act this would not create a procedural obstacle for a plaintiff to seek damages under Finnish law.

Under a recent ruling of the Finnish Supreme Court (KKO 2012:1) the court largely ignored the arguments of the defendant that claims for damages caused by contamination were unfounded since the assessment of liability for the same contamination under administrative law, i.e. the Finnish Environmental Protection Act, was still pending in the environmental authorities. This is in line with the above-mentioned view that administrative procedures and rulings do not automatically extinguish the possibility to seek damages. However, since the Finnish Supreme Court ruled in favor of the defendant on other grounds it could still be argued that the jurisdictional question under Finnish law would remain unsettled. This argument is not very convincing since it would have seemed more likely that the Supreme Court would have dismissed the plaintiff's case on the defendant's procedural arguments described above, if the court had found them to be persuasive.

Thus it is all the more interesting to take a look at the perhaps most pressing questions that a party would need to assess before going to court and claiming damages for climate change induced damage, or, respectively, in order to assess a party's potential liability and likelihood of being sued for such damages.

3.2 Climate change liability for environmental damage according to Finnish law

Above it has been noted that whether greenhouse gas emissions qualify as pollution is significant for settling any dispute in relation to injunctions. *EPA v. Massachusetts* has settled the U.S. debate on the matter, but in the Finnish context the issue of whether greenhouse gas emissions constitute pollution or not has to be reviewed independent-

¹⁷ Maxine Burkett, *Climate Justice and the Elusive Climate Tort*, 121 YALE L.J. ONLINE 115 (2011), p. 116–117, <http://yalelawjournal.org/2011/09/13/burkett.html>.

¹⁸ There are several cases pending in the lower courts regarding climate liability.

ly from the above-mentioned arguments concerning the definition of pollution in the Finnish Environmental Protection Act since liability for damages is not dependent on the said Act.

Finnish law recognizes a special form of damage, environmental damage, as for which certain particularities apply regarding, for example, burden of proof and other issues regarding, for example, allocation of liability. The Finnish Act on Compensation for Environmental Damage is applied if the damage caused qualifies as environmental damage. In order to qualify as environmental damage it is not the actual loss or damage that needs to be of a certain kind, but rather the manner in which the loss or damage arises.

In order for the Finnish Act on Compensation for Environmental Damage to be applicable, the following generalized three step test has to be satisfied: (1) an activity *carried out in a certain area* (2) causes a *disturbance in the environment* (as defined in the Act)¹⁹ (3) that in turn causes coverable *loss or damage*. If these three steps are satisfied, the definition of environmental damage is fulfilled and the Act is applicable. Of particular interest at this stage is to assess whether greenhouse gas emissions and caused climate change impacts would fulfill the criterion of “disturbance in the environment” as explicitly defined in the Act.

What constitutes pollution is not defined in the Finnish Act on Compensation for Environmental Damage. However, the term “pollution” in the context of the Act is independent of any definitions found in other pieces of legislation, e.g. the Finnish Environmental Protection Act. “Pollution” refers to basically any adverse change in the quality of the environment, regard-

less of it being physical, chemical or biological. Thus, for example, structural changes in water bodies could constitute “pollution” under the Act.²⁰ The scope of what falls within the ambit of “pollution” should be construed rather broadly and should not be limited without good reason. However, it has been argued that changes in landscape or flooding of land would not fall within the scope of “pollution” in the context of the Act.²¹ Although the Act also covers damage caused by “other similar nuisance” it is unclear to what extent the scope of the Act can be broadened. What type and extent of similarity is required would need to be assessed case-by-case depending on the particular nuisance at hand.

Since “pollution” is not defined in the Act on Compensation for Environmental Damage, it is obvious that “air pollution” isn’t defined either. But, on the face of it, one cannot at least directly dismiss the argument of greenhouse gas emissions constituting air pollution within the meaning of the Act. Natural counter arguments would of course be that the legislator didn’t mention greenhouse gas emissions as a form of air pollution. Taking into account that the United Nations Framework Convention was signed in 1992, i.e. at the same time that the Act was being prepared, it could be argued that greenhouse gases would have at least been mentioned in the Government Bill, had the intention been to include such emissions as air pollution. However, the strength of such arguments is uncertain. What ends up in a Government Bill is by no means a conclusive statement of the legislator’s intentions. Another obvious argument against greenhouse gas emissions being “air pollution” would be that the chain of events from (i) greenhouse gas emissions to (ii) increasing the concentration of such gases

¹⁹ The Act covers the following “disturbances”: i) pollution of the water, air or soil; ii) noise, vibration, radiation, light, heat or smell; and iii) other similar nuisance.

²⁰ Government Bill HE 165/1992, p. 20.

²¹ Erkki J. Hollo – Pekka Vihervuori: *Ympäristövahinkolaki*, Helsinki 1995, p. 28–29.

in the atmosphere to (iii) in the end participating in causing climate change is not a “disturbance in the environment”²² since such an interpretation would stretch the scope of the Act too far from its wordings. However, the latter form of argumentation also begins to move in the direction of proving causation, which will be dealt with later.

Many of the effects (changing weather patterns, rising sea levels, migration of species) of climate change would not easily fit within the scope of “pollution”, as it is at least perhaps generally perceived in jurisprudence and case law in Finland.²³ Although important from a perspective of principle, the qualification of the effects of climate change as pollution or not is, however, in the end perhaps not essential for assessing whether the Finnish Act on Compensation for Environmental Damage could be a practical tool for a plaintiff claiming damages. Even if greenhouse gas emissions would be found to constitute pollution or other similar nuisance under the Act on Compensation for Environmental Damage, it is fairly easy to envisage that any claim for damages still has a whole range of hurdles in front of it before it would succeed in the Finnish courts.

3.3 The challenge of proving causality

Intuitively it would seem that a plaintiff’s biggest test if he or she were to carry his or her case to a successful conclusion would be meeting the burden of proof.²⁴ This applies to injunctions as well as tort law cases. While the evidence of anthropogenic, i.e. human induced, climate change

is mounting and opinions to the contrary have found themselves in a clear minority,²⁵ this only concerns the fact that on the general level there is causality between human actions (or inactions) and the general phenomena of climate change. In a tort law case as well as an injunction case, a plaintiff would need to show that it has suffered loss or damage due to an event that was caused by climate change that in turn was caused by anthropogenic emissions of greenhouse gases.

Thus even though one part of the causal chain, i.e. the general causality between climate change and human activities, is proven, a plaintiff might face considerable hurdles in showing individual causality, i.e. that the damage sustained, e.g. due to extreme weather conditions or flooding, was caused by climate change specifically attributable to greenhouse gases and not, for example, by natural variations in the climate or weather patterns. Moreover, if the plaintiff needs to show that particular emissions of greenhouse gases have caused the particular climate change impact, the plaintiff would start to be as close to an insurmountable brick wall as it is possible to get. It has been noted that current climate science may provide rather limited evidence regarding local climate change impacts as the focus of climate science has, at least so far, mainly been on proving that global or regional climate change is taking place and that human induced activities play a role in it.²⁶

This being said, it can be pointed out that the wider one’s perspective regarding the assessment of damage is, e.g. from an individual real estate plot, to a local community or city, or to an entire geographical region, the closer one seems to move towards a form of merger of general and

²² I.e. i) pollution of the water, air or soil; ii) noise, vibration, radiation, light, heat or smell; or iii) other similar nuisance.

²³ See the discussion of above in section 2.1 regarding whether greenhouse gas emissions and climate change are “pollution” as defined under the Finnish Environmental Protection Act.

²⁴ Regarding proof of causation in a legal context, see e.g. Preston, Brian J.: *Climate Change Litigation* (Part 1), 1/2011 CCLR, p. 6–9.

²⁵ See e.g., IPCC Fourth Assessment Report (AR4), Synthesis Report, http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf.

²⁶ Peel, Jacqueline: *Issues in Climate Change Litigation*, 1/2011 CCLR, p. 19.

individual causality. It is certainly easier to show a clearer pattern of events following from climate change, for example, as for an entire region than it is for a single piece of real estate.

According to the Finnish Act on Compensation for Environmental Damage, compensation shall be paid if it is shown that there is a *probable* causal link between the activities and the loss or damage. In assessing the probability of causality, consideration is given, among other things, to the other possible causes of the loss or damage. This lowers the burden of proof for the plaintiff even though it does not reverse the burden of proof. The question that remains is to what level the burden of proof is in practice lowered. During the preparation of the Act the issue was debated, but it seems that lawmakers simply could not come to unequivocal conclusions. Words are open to interpretation and basically everybody may have his or her own perception of what “probable” actually means.²⁷ Thus there is rather little tangible help available in the preparatory works of the Act, except for a statement in the Government Bill noting that a plaintiff would still have to show a probability that is clearly above 50 per cent.²⁸ However, such percentages should be taken with a grain of salt. First of all because of the obvious difficulty in assessing and verifying probabilities in mathematical terms when it comes to a concrete case involving complex issues such as who or what has caused damage or loss due to climate change, and, second, since Finnish courts would probably not find themselves too bound by such statements in the Government Bill anyway.

With respect to the issue of whether greenhouse gases would constitute air pollution or a

disturbance in the environment it is important to note that the lowered burden of proof also applies to proving that the defendant has caused the environmental damage.²⁹ A full burden of proof as for the occurrence of the damage or loss itself is still required for a successful case.³⁰ Therefore a defendant must be able to show that he or she has indeed suffered some form of tangible loss or damage.

However, the issue of causality can also be seen from a broader perspective. Since a direct emission of greenhouse gases is a relatively straight forward event in most cases this part of the causal chain of events can be shown quite easily. Furthermore, as greenhouse gas emissions contribute to climate change it is also relatively safe to argue that at least more general impacts of climate change, such as, e.g. sea level rise or melting of permafrost, are within the boundaries of causality. Taking the causality argument one step further, however, would seem to put the general boundaries to a further stress test. This would be the case if a plaintiff sued a defendant for indirect or downstream emissions caused by for example the defendants products but not through the direct activities of the defendant (e.g. car manufacturers, fossil fuel producers or extractors of fossil fuels). From a Finnish law context it would be hard to argue that the Finnish Act on Compensation for Environmental Damage would be applicable since the defendant in such a case would not be causing the alleged damage by an activity a carried out in a certain area, which is a requirement for the Act to be applicable. Thus a plaintiff would very likely need to establish liability under general tort law or another statute, which would on the face of it seem like a challenge.

²⁷ Erkki J. Hollo – Pekka Vihervuori: *Ympäristövahinkolaki*, Helsinki 1995, p. 120–121.

²⁸ Government Bill HE 165/1992, p. 23, and, Law Committee Memorandum LaVM 10/1994, p. 4–5.

²⁹ Committee Memorandum KM 1990:17, p. 58, and, Government Bill HE 165/1992, p. 23.

³⁰ Erkki J. Hollo – Pekka Vihervuori: *Ympäristövahinkolaki*, Helsinki 1995, p. 115.

3.4 Getting around the fact of multiple alleged culprits

On a global scale the anthropogenic greenhouse gas emissions of one point source are arguably relatively minor. Thus, it is not surprising that such an argument would probably constitute the first line of defense in climate change liability litigation. However, as has been pointed out, the impacts of climate change may also be regional or local affecting certain communities to a greater extent than others. Furthermore, the issue is closely linked to how tort law liability in any given jurisdiction deals with cumulative impacts occurring over time and space.³¹

It can be noted that according to the plaintiffs of the case eventually leading to *AEP v. Connecticut* (in the Supreme Court proceedings the original plaintiffs were the defendants) the five emitters of greenhouse gases that had originally been sued by the plaintiffs emitted 650 million tons CO₂ annually, which constitutes about 10 percent of emissions from all anthropogenic activities in the U.S. and about 2.5 percent of all anthropogenic global emissions.³² Thus, although not forming a majority share of domestic let alone global emission, one could hardly say that the aggregate amount of emissions would have been insignificant. Especially bearing in mind the myriad of sources of CO₂ emissions worldwide. As mentioned above in *AEP v. Connecticut* the Supreme Court did not grant an injunction since federal nuisance law had been effectively displaced as a result of *Massachusetts v. EPA*.

In this context it is worthwhile to mention one particular court case out of many even though it has not been tried by the U.S. Supreme

Court. In *Kivalina v. ExxonMobil*³³ the Native Village of Kivalina and City of Kivalina have sued twenty-four oil companies, energy companies and utilities for damages allegedly caused by the defendants. According to the plaintiffs, global warming, caused by the greenhouse gas emissions of the defendants, has resulted in a diminishing of the Arctic sea ice that protects the Kivalina coast from winter storms. The ensuing erosion and destruction will require the relocation of Kivalina's residents. The district court dismissed the suit, but the case is currently pending on appeal in the Ninth Circuit Court of Appeals.

One argument for dismissal of the suit in *Kivalina v. ExxonMobil* was the fact that although the defendants had undoubtedly contributed to climate change, the damages caused to the plaintiffs would still be partial. The district court found it rather a matter of policy than law to decide on the allocation of fault, even if it were true that the defendants had contributed more to the harms caused to the plaintiffs than other parties. This would seem to be a popular and rather persuasive defense, i.e. to argue that greenhouse gas emissions are caused in all human activities around the globe, and as such it is more of a political question to determine which particular sources of emissions should bear the brunt of, e.g., paying for damages caused.

Under Finnish law the Act on Compensation for Environmental Damage provides for joint and several liability for environmental damage. This means that, even if a defendant is found to have only caused part of the environmental damage, the defendant would as a rule be jointly and severally liable for the entire damage or loss. A jointly and severally liable defendant may in turn

³¹ Peel, Jacqueline: Issues in Climate Change Litigation. 1/2011 CCLR, p. 16–17.

³² *American Electric Power Co., Inc. v. Connecticut*, 564 U.S. 10-174 (2011).

³³ *Native Village of Kivalina et al v. Exxonmobile Corporation et al*, U.S. district court for the northern district of California, Case No: C 08-1138 SBA, Docket 171, 172, 175, 176, 177, order granting defendants' motions to dismiss, September 30 2009.

either sue (implead) co-liable third parties making such third parties defendants in the same lawsuit or alternatively choose to sue co-liable third parties in a separate court process.

Even though joint and several liability provide a powerful weapon in the arsenal of a plaintiff seeking damages under Finnish law, it must be emphasized that due to the nature of climate change as a global problem a plaintiff may still stumble in its attempt to win a case before the Finnish courts. This is due to the fact that under the Act on Compensation for Environmental Damage the defendant is not jointly and severally liable for the entire damage or loss if the defendant's share in inflicting the damage or loss is *manifestly minor*.

As with many wordings in legal acts there is no clear-cut way of interpreting when a share is more than manifestly minor.³⁴ However, the reasons for including the exception in the Act are interesting and could give clues to the interpretation. In the original Government Bill the exception was lacking. It was only added in the committee deliberations in the Finnish Parliament since the original proposal was considered to be unfair.³⁵ According to the original proposal even if a defendant were responsible for only a minimal amount of the caused damage, such a defendant would still have been jointly and severally liable for the whole damage. Thus it can be argued that the objective of the exception is more or less to enable the courts to use a test of reasonableness and fairness when they apply joint and several liability in a particular case.

As each contributor to climate change would under Finnish law be considered as one defendant it is almost certain that any defendant that falls under the jurisdiction of Finnish courts

would only have a manifestly minor input as for global greenhouse gas emissions and as a consequence a manifestly minor effect on global climate change. Therefore a defendant would not be jointly and severally liable under Finnish law. If a plaintiff could somehow show that particular greenhouse gas emissions are responsible for a particular or local climate change event, the conclusion could be another one.

It is also worth mentioning that the directive on environmental liability with regard to the prevention and remedying of environmental damage (2004/35/EC) ("Environmental Liability Directive") was, as for its procedural parts, implemented through the Finnish Act on the Remediation of Certain Environmental Damages.³⁶ The Directive and the Act do not directly cover tort law liability, but rather deal with the issue of prevention and remediation of environmental damage. Nevertheless, under the Directive and the Act the operator shall bear the costs for the preventive and remedial actions taken pursuant to the Directive and the Act. Thus the Act may very well be of relevance also in a climate change liability case where a plaintiff uses its right under Finnish law to petition the authorities to take action against a defendant in case of alleged damages. The Act is, for example, applicable to damage to protected species and natural habitats.

However, more importantly for the issue at hand, the Environmental Liability Directive applies to damage caused by pollution of a diffuse character, only if it is possible to establish a causal link between the damage and the activities of an individual operator.³⁷ Emissions causing global climate change would probably fall under what is understood as being of a diffuse character. Under section 10 of the Finnish Act on the Remediation of Certain Environmental Dam-

³⁴ Erkki J. Hollo – Pekka Vihervuori: *Ympäristövahinkolaki*, Helsinki 1995, p. 257.

³⁵ Environmental Committee Opinion YmVL 10/1994, p. 6.

³⁶ Act 29.5.2009/383.

³⁷ Directive 2004/35/EC, article 4(5).

ages, if the damage was caused by more than one activity, the responsibility for the costs are to be allocated among the operators according to their share of the total damage. And furthermore, if such share cannot be assessed, the responsibility must be divided per capita. This gives any defendant in a climate change liability case a powerful defense since, unless there is evidence of individual causation of a particular, local or regional, climate change event, the per capita argument can be taken to global levels, i.e. the defendants share of global emission, which in practice would mean that any covering of costs would be minimal. Naturally, in case, the total sum of the remediation costs is considerable, even a small share could amount to a significant burden for a particular defendant.

4 Final remarks

Generally speaking and setting aside questions relating to the definition of “pollution”, the particularly difficult issue that a successful nuisance or tort law climate change lawsuit would need to overcome is to demonstrate causality between a particular action or operation and climate change related impacts. It would seem safe to say that damage or loss caused by anthropogenic climate change is the cause of an unusually complex chain of events. It may even not be correct to speak of a “chain” of events since multiple different effects would seem to be at work.

Furthermore, the issue of accountability of a plaintiff or a set of plaintiffs for a climate change event that most likely is not solely caused by the plaintiff(s) will require a court to weigh and balance the issue of liability.³⁸ Naturally individual jurisdictions may have different variations on these questions as well as further domestic pecu-

liarities related to, for example, standing or justiciability, not common with other jurisdictions.

Further practical issues include that not only would there be many potential defendants, i.e. a lot of “responsible” parties, but also several potential plaintiffs, i.e. “everybody” may “suffer”.³⁹ In this regard an action against municipalities or public authorities on the grounds that development approval or planning and zoning has been poorly conducted, e.g. due to risks relating to e.g. flood prone areas, erosion or landslides could perhaps have a better chance of success from this narrow perspective.⁴⁰ At least in the latter cases the plaintiff versus defendant constellation would seem to be more straightforward as the number of defendants would probably be more limited.

But what is perhaps most important to realize is that environmental pollution related problems have long since stepped out of a clearly and easily defined two-party relationship, i.e. a classic nuisance case, where neighbors of two adjacent properties have a dispute regarding the use of one’s property and the negative impacts of such use on the other’s property. Issues are of a completely different magnitude as can, for example, be witnessed in the development of environmental law in the past decades in the fields of transboundary air pollution, ozone depletion, and lately regarding climate change mitigation and adaptation. Climate change induced nuisance, damage or loss is particularly problematic in this sense since it seems to force standard nuisance law and tort law into a whole new dimension in this respect. It is possible to take the discussion of who is a plaintiff and who is a defendant into ab-

³⁸ Peel, Jacqueline: *Issues in Climate Change Litigation*. 1/2011 CCLR, p. 15.

³⁹ Ludwiszewski, Raymond – Haake, Charles – Fletcher, Stacie: ‘The “Glorious Mess” Comes to Court’ in 2/2010 CCLR, p. 175–176; Preston, Brian J.: *Climate Change Litigation (Part 1)*, 1/2011 CCLR, p. 7.

⁴⁰ Preston, Brian J.: *Climate Change Litigation (Part 1)*, 1/2011 CCLR, p. 9.

surdity, since practically every human being on Earth contributes to greenhouse gas emissions, and everybody, corporations included, could probably to some extent claim to have suffered some damage or loss due to climate change. Even though environmental law as a field of law has been evolving, it is a different issue whether tort

and nuisance law have kept up or even could or should keep up with the increasing globalization of environmental problems such as climate change. Tackling these kinds of problems would be more suitable with other instruments. But this is of course easier said than done.