

Legal aspects of global climate change and sustainable development

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Abstract

Global warming stemming from human activities tends to damage the eco-systems in such a way that poor countries as well as future generations are likely to be highly affected.

This paper suggests that this problem may be appropriately conducted within a legal framework that seeks to align the general interest in the long term with the dictates of the political and private interest in the short term. Although the framework actually poses many shortcomings, such as uncertainty and difficulties in terms of proving causation, they can be overcome.

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1. Introduction

Après nous le déluge

While society at large (at least in the western world) is dreaming about a better – i.e. more prosperous – future, most (western) politicians remain under the spell of the sway of the day¹ and business people still believe in the fairy tale of an ever growing economy, the future of the world looks grim. History has told us that people prefer to close their eyes. If there is one lesson history tells us, it is that mankind makes the same mistakes time and again. If the future will bring evil, one should enjoy the remaining days of prosperity. That seems to be the prevailing view.

This attitude – Louis XIV's *après moi le déluge* – has caused tremendous suffering all over the centuries. However, this contribution is not about history. Let us focus on today's realities. A brief – and therefore inevitably unbalanced – description may do for this purpose.

The emission of greenhouse gases, due to human activities, continues to alter the atmosphere in ways that are expected to affect the climate. The effects will be tremendous. The sea level will rise, glaciers will retreat, and the arctic sea-ice will melt even further. Particularly in Africa and Asia the frequency and intensities of droughts have been observed. A (further) shortage of water for many millions – probably over a billion – is to be expected. There has been an increase – and there will be further increases – in the frequencies of heavy precipitation events (such as thunderstorms), and an increasing frequency of extreme temperatures is to be expected.²

The degradation of eco-systems is going to cause many serious problems, particularly, but certainly not exclusively, for poor countries. Over the past fifty years, we have changed ecosystems more rapidly than in any comparable period of time in human history. Past actions to slow or reverse the degradation of ecosystems have yielded significant benefits, but these improvements have generally not kept pace with growing pressures and demands.³ This affects, inter alia, fish stocks, accessible supply of fresh water, food production, and the risk of serious illnesses such as cholera; the frequency of floods and fires has already increased significantly. The phenomenon will have a negative impact on

¹ That is not true for every politician, nor for every country. For example, the Chinese government is well aware of the urgent need to tackle environmental problems. Premier Zhu Rongji put it as follows in 1998: "China has always seen environment protection as important but over the past decades, other priorities took precedence due to historic and economic necessities. Now, this is a key priority for us"; China Council for International Cooperation on Environment and Development, Phase III (2002-2007), www.harbour.sfu.ca/dlam/. Yet, the Chinese leadership realizes – of course – that it cannot focus exclusively on environmental issues, thus ignoring economic development. After all, the latter is a requirement for eradicating poverty; www.harbour.sfu.ca/dlam/issuepaperchinese. See also the summary record of the meeting of October 30-November 1, 2003.

² See for more details inter alia INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (2001); NETHERLANDS ENVIRONMENTAL ASSESSMENT AGENCY (2005); Michael RENNER (2005), p. 6; Joseph E. ALDY, Peter R. ORSZAG and Joseph E. STIGLITZ (2001); EU REPORT 21553 (2005); INSTITUT FOR MIJOVURDERING (2004); Bradford C. MANK (2005) and BertJan HEIJ (2005).

³ See further MILLENNIUM ECOSYSTEM ASSESSMENT (2005); in larger freedom: towards development, security and human rights for all, report of the UN Secretary-General of March 21, 2005, in particular pp 19 ff.

poverty. It may take years or even decades for the full consequences will become known, due to inertia in ecological systems, as well as a temporal separation of costs and benefits of the changes involved.

The foreseeable shortage of oil will lead to even higher prices; these primarily affect poor countries. Besides, they may have rather draconian effects on the economy and daily life.⁴ To some extent the upcoming shortage may be a blessing in disguise: it unavoidably requires a switch to alternatives for oil. For example windmills or solar-energy would help to reduce the emission of greenhouse gases. Yet, we may not take it for granted that those alternatives – rather than even more polluting ones – will be chosen. Moreover – as politicians seem to underestimate – it takes quite some time to install them.

Other aspects of sustainable development deserve our attention too.⁵

It is telling – and in a sense very helpful – that the President of the Reinsurance Association of America has reportedly warned that global warming could bankrupt the insurance industry.⁶ It may fairly be assumed that this will not be confined to the insurance industry. It is going to be significant for society at large. Unsustainable development will cause more poverty, massive migration by people who are deprived from first needs, such as (clean) water; it will greatly affect pension funds and it may give rise to all kinds of international conflicts.⁷

Hopeful signs?

A great many projects, groupings, initiatives and institutions are working on one or more of these topics. Thousands of people are travelling around the globe to discuss them at length. Several international institutions (such as the United Nations and the World Bank) are trying hard to stem the tide.

It can only be hoped that they will be successful. Given the scope and seriousness of the *interlinked* problems of poverty, climate change and deterioration of the environment, and bearing in mind that most politicians don't look beyond the next elections (if their angle is not considerably narrower),⁸ it is at least open to debate whether the prospects of all these groupings are very bright. All the less so as the time left probably is limited.

⁴ See for more details, inter alia, Thomas PRUGH, Christopher FLAVIN and Janet L. SAVIN (2005), p. 100. See for a balanced and well documented exposé about the oil-issues, *The Economist*, April 30/May 6, 2005, various contributions; a letter of March 24, 2005 to President Bush, signed inter alia by leading (ex-) politicians and very high ranking persons from the US military; see also *The Wall Street Journal* on line, *Politics and Policy*, March 28, 2005.

⁵ See e.g. WORLD BANK (2004).

⁶ Daniel A. FARBER (2005).

⁷ See also Michael RENNER, supra n. 2, p. 5.

⁸ Mikhail Gorbachev rightly observed that we need leaders who have the moral courage to ground their decisions on – what he calls – a “new global ethic”, in the Final Report of the Earth Dialogues, p. 18.

After all, part of the damage is already irreversibly done.⁹ Much additional harm can still be avoided. But this requires that concrete and truly adequate steps to be taken in the very short term. If we don't, our planet will survive. But that is not true for a part of mankind, and many species of animals, plants and other beings.¹⁰

2. A new lawyer's paradise?

Could lawyers be of any use to stem the tide? Could the law be a "weapon" to persuade politicians and private companies, all over the world, to take appropriate steps to avert the otherwise inevitable catastrophes? Although I don't belong to the believers in the preventive effect of tort law in general, it might work if those affected could be made to believe that there is a fair chance that lawsuits against their institutions (be it states or companies) may well be successful. The message would even be more persuasive if those holding the wheel would run the risk of being held liable personally.¹¹

Let me stress from the outset: very many hurdles will have to be taken. There is no guarantee for success, let alone in the short term. But it seems worth trying. This contribution aims to address, in a very general way, some of the most important and difficult aspects of this tremendously challenging and broad topic. Much more comparative in depth-research still has to be done, in addition to sources already available.

If prominent and independent lawyers from all over the globe would emphasise the urgency and, more importantly, disseminate the view that taking legal steps might well be successful, there seems a fair chance that courts will be prepared to take the lead if and as long as politicians and companies refrain from assuming their responsibilities.

The non-believers should bear in mind that litigation often takes a long time. By the time the disputes are going to be decided by the national Supreme or International Courts (say in 15 years or so), the evidence will be (even) more conclusive and the adverse consequences will be (even) more visible than today. That seems a good, if not solid, basis for sorely needed judgements for the plaintiffs.

Those judgements inevitably will give rise to lamentations by those who prefer to fritter away the interests of society at large, seemingly primarily focussing on their own short term interests. Experiences in other areas have shown that most courts are courageous enough to take their responsibility

⁹ See supra n. 3, p. 18 and 31; the report shows a rather alarming picture.

¹⁰ Some scientists – particularly geologists – claim that climate is going to change anyway on the long term; see e.g. Salomon KROONENBERG (2006) and Joost VAN KASTEREN (2006), p. 2. That may, or may not be true, but it should not be a justification to sacrifice, *inter alia*, the next generations.

¹¹ The International Law Association (ILA) rightly stresses in its New Delhi Declaration of Principles of International Law Relating to Sustainable Development (2002) the importance of an access to effective judicial procedures, also for the purpose of claiming compensation; principle 5.3.

to repair the damage done by acts or omissions of tortfeasors who ignored well-known and potentially very harmful risks.¹²

If politicians and private companies refrain from assuming their responsibility, the only and ultimate hope are the courts. I stress “if”, as it can only be hoped that a legal approach will not be necessary.

3. *The hurdles to be taken*

Which hurdles will need to be taken? I will confine myself to climate change. Seen from a legal angle, global climate change is – apart from poverty – probably the most difficult topic, as it plays a role all over the world, whereas it is/will be caused by a great many activities equally from all parts of the globe.

That is not to say that the other topics are less important. They deserve our attention too. Seen from a legal perspective, poverty seems rather different and more complex.¹³ As to poverty, it might be worthwhile to focus on two topics: free trade and all kinds of burdensome loans to poor countries, if and to the extent the creditors (should) know that they will be wasted – i.e. end up on the bank accounts of the ruling class –, while they have to be repaid by the countries to which they have been of very limited, if any, use.¹⁴

4. *The factor: uncertainty*

One of the most difficult aspects probably is the amount of still remaining uncertainty. *That* human activities have caused, or at least have greatly contributed to, climate change is hardly disputed anymore. The same holds true for changes in ecosystems. There is little doubt, if any, that steps must be taken in the short term.¹⁵

From then onwards, opinions diverge. *Uncertain* are the point in time, the scale, the scope and the parts of the world where the predicted negative consequences are going to materialise. In other words: we don't know the *precise* facts yet.

Even if the facts would be known, it will *rarely* be possible to establish a causal link (in the sense of a *condicio sine qua non*-relationship) between a *specific* occurrence (e.g. a thunderstorm, flood or

¹² The asbestos example may do for this purpose.

¹³ See, e.g., Sumudu ATAPATTU (2005) p. 311. The Universal Declaration on the Eradication of Hunger and malnutrition (1974) is not necessarily doomed to be interpreted as merely good intentions without any substantive meaning.

¹⁴ It is at least open to debate whether there is any legal obligation to provide financial and economic assistance to developing states: Ximena FUENTES (2004), p. 36.

¹⁵ See § 1 and for a more critical view e.g. Alan S. MANNE (2004).

drought) and the acts or omissions of a *specific* person, company or even country. Is that the end of the story?

Admittedly, those uncertainties don't make the plaintiff's case easier. But they are not necessarily as many unsurmountable hurdles. All the less so, as further scientific research will probably remove a part of the clouds.

For the time being, causation possibly is the most serious obstacle. Even more so if the defendant would be sued on behalf of future generations.¹⁶ Let us first explore this topic.

5. Standing and claims on behalf of future generations

Particularly in the United States, the major obstacle probably is "standing". A plaintiff must show that he has suffered "injury in fact". For practical purposes, this requirement is a mixture of causation, remedies and procedural aspects.¹⁷ Those topics will be touched upon below.¹⁸

Conceptually, the idea that a generation that is not yet born could have suffered injury in fact sounds strange. That does not mean, however, that we can ignore their interests and that "they" have to wait until they are born in a very different world, ruined by us.

There is an emerging legal trend that the interests of future generations must be taken into account. Art. 3 of the 1992 Rio Declaration on Environment and Development points out that the right to development must be fulfilled so as to equitably meet the developmental and environmental needs of present and future generations. The same holds true for, inter alia, para 11 of the 1993 Vienna Declaration on Human Rights¹⁹ and the International Law Association, New Dehli Declaration of Principles of International Law Relating to Sustainable Development (2002), principle 1.2.

It may fairly be assumed that these obligations are not meant as mere words; they should have a real meaning. As Sorabjee, Attorney-General of India, rightly put it (in the context of human rights):

"The ultimate yardstick of success of any (...) instrument and system does not depend upon the sonorous content and detailed elaboration of the (...) rights guaranteed by it. Its success is to be measured by the extent to which human rights are meaningfully implemented."²⁰

¹⁶ See for a more elaborate view John Edward DAVIDSON (2004).

¹⁷ See inter alia Bradford C. MANK, supra n. 2; David R. HODAS (2006) and Daniel A. FARBER, see supra n. 6, p. 1123 and the many references provided by these authors.

¹⁸ It doesn't seem useful to devote too much attention to the issue of standing. First and foremost, this is discussed in great detail by MANK and others. Besides, the issue is mainly relevant for US Courts, whereas it may be expected that the Federal Courts will favor a reluctant approach.

¹⁹ See inter alia Ximena FUENTES, supra n. 14, p 8.

²⁰ Soli J. SORABJEE (2001), p. 3.

In a civilised world, the law should protect people. Vital interests, particularly life, the environment, natural resources, health and property must be protected.²¹ Courts, the world over, (have to) deal with numerous trivial claims. The latter is believed to be an achievement of a constitutional state and it probably is. Then, to say the least, it seems difficult to justify, let alone to explain, why victims whose vital interests are affected or neglected altogether might be deprived from *any* access to court. That holds true for victims suffering actual damage (injury in fact); it should equally be true for damage to future generations. It cannot be true that these are doomed to inherit a very different world and that there is no legal recourse to prevent this from happening.

The idea that future generations have no choice but to accept their fate is not appealing.²² There *should* be ways to cope with their interests. Some take the view that intergenerational rights are already embedded in the US Constitution.²³ The Philippines Supreme Court has openly acknowledged standing to sue on behalf of future generations.²⁴

Private law has quite some experience with this phenomenon. Trusts and similar fiduciary relationships may concern themselves with the will of past and the interests of unborn generations.²⁵ Compared with the interests of future generations to inherit a liveable planet, trusts and similar legal constructions are of very limited importance. Yet, they show that the law has always been able to find ways to accommodate the needs and demands of society.

Theoretically speaking, it could be argued that there is no need to give way to claims on behalf of future generations. After all, these could sue themselves, if when they are born the need is felt. For practical – and arguably also legal – reasons this is no viable alternative. First: by then the damage will be done. Secondly: compensation in monetary terms will often be of little use. Those living in areas without proper water may serve as an example. If possible at all, money will not be enough to get water (within their life-time). Thirdly, *if* those who actually caused the loss can still be traced, it is at least very much open to debate whether they will be solvent enough to compensate the immense damage to which they have contributed. Fourthly, if national states would be the defendants, the victims would in fact pay their own loss.²⁶ Although many seem to believe that governments are, so

²¹ To that effect, a series of human rights conventions and declarations; see below. See also art. 2:102 Principles of European Tort Law.

²² African customary law is said to impose this kind of obligations on the present generations; the same is true for various nontheistic Asian “religions”: see Paul A. BARRESI (1997).

²³ For example, DAVIDSON, see *supra* n. 16, p. 191.

²⁴ BARRESI, see *supra* n. 22, p. 83.

²⁵ DAVIDSON, see *supra* n. 16, p. 204.

²⁶ That is not entirely true, of course. Apart from the nasty immunity-topic, victims of State A could sue State B and vice versa. On a macro scale, this will globally amount to the result mentioned in the text. “Globally”: the outcome might well be different if State A could invoke the immunity-defence, whereas State B cannot.

to speak, “someone else”, “their” money is provided by the population. Money to be paid by states to citizens has to be “repaid” by means of taxes. Fifthly: the claim might well be time-barred.²⁷

Even if claims *on behalf* of future generations would be doomed to be dismissed, that does not conclude the matter. The present generation could start litigation in its own name.²⁸ At the very least, *today's* children, for example, are likely doomed to become victim of the effects of climate change; actual damage *will* manifest itself in their lifetime. But even their claims may fail down if and to the extent they sue for damages, if they cannot show any “injury-in fact”.

6. Causation²⁹

Overall, there seems (still) to be insufficient evidence to establish a causal link (condicio sine qua non-relationship) between *specific* acts or omissions and a *specific* loss.

But that may not be true for *every single* potential defendant. A relatively small number of private companies is said to account for 80% of CO2 emissions worldwide, whereas one company apparently is responsible for 5%.³⁰ Far more than 50% of the total emission of greenhouse gases can be attributed to a very few national states. That might be a sufficiently solid basis to prove causation in relation to each of these.

Oxford University is working on the establishment of a link between increased levels of greenhouse gases and certain specific events.³¹

On a more *general* level, the present state of the art is not yet sufficient to establish a causal link between smaller companies and the loss of a specific individual. That is not to say that such losses don't exist. They do. But for the time being *global warming*³² seemingly is such a difficult and complex issue that it would be quite a step to attribute a specific loss to, say, an average factory, even for a very small part. The Principles of European Tort Law may illustrate why such claims are not (yet) very promising. Although they depart from proportional liability, they also require a sufficient basis for apportionment. If there is no or insufficient scientific evidence that a loss can be attributed – either in full or in part – to a defendant, whereas it may well lie in the victim's sphere (as having

²⁷ Statutes of limitation are very different all over the world. Ewoud HONDIUS (ed.) (1995) provides a broad overview.

²⁸ I leave aside whether or not class actions and or the (US) phenomenon of private attorneys-general might come into play. I assume, it won't be difficult to trace series of living persons who have sufficient interest to start litigation.

²⁹ See e.g. Daniel A. FARBER, *supra* n. 6.; Bradford C. MANK see *supra* n. 2, p. 26; Peter RODERICK and Roda VERHEYEN (2003), pp. 4-38.

³⁰ BURGESS SALMON LLP (2005).

³¹ BURGESS SALMON (2005), see *supra* n. 30.

³² This doesn't hold true for most pollution cases; more often than not the polluter will be known. That topic is well known and adequately dealt with in many treatises and cases.

merely a “natural” cause)³³ it would overstretch the role of tort law to hold the defendant liable regardless.^{34 35}

One could possibly argue that defendants, even if their individual contributions cannot be established (yet), (either scientifically, or because they are too small) can be compelled to pay damages to a fund. This obviously is a complicated and probably sensitive issue as it gives rise to a series of delicate questions, such as: who should be in charge of the fund? How should the money be spent? I tend to think that it should be managed by an international institution (as long as that does not mean that the money is largely spent on overhead). The “fund” should examine how the money could most effectively be used. It might be most efficient (and at the same time fair) to provide it to poor or so called less developed countries as they may not have the necessary means themselves; see § 13 below.

7. Injunctions?

Injunctions stand a reasonable chance of success.³⁶ But the way to get a favourable judgement is also rife with pitfalls. Dutch law – and the same may hold true in other jurisdictions – requires that the injunction is sufficiently defined. The defendant must know what he is required to do, or is not allowed to do.³⁷ Obvious and innocent as this may sound, it gives rise to pretty fundamental questions about the role of the judiciary in this respect.

Personally, I do not hesitate to accept that courts must deliver courageous judgements if the other pillars of the trias politica refrain from assuming their responsibility, the interests at stake are of truly significant importance and, last but not least, there is a sufficient – i.e. not necessarily very solid – legal basis. The first two requirements are obviously met; the third is discussed below in § 9. After all, the future of the world is at stake, whereas most politicians ignore or mishandle the interests of present and future generations.

Admittedly, courts are not best equipped to deal with this type of case. Although they have experience with cases about issues far beyond their expertise and knowledge, global climate change is such

³³ The loss lies in the victims sphere if, e.g., a thunderstorm or a flood is just a matter of tough luck (the abnormalities of the weather).

³⁴ See for elaboration Jaap SPIER (2005). See further Bradford C. MANK, *supra* n. 2, p. 24.; to a similar effect Joy-Dee DAVIS (2005), p. 51.

³⁵ See for a more optimistic view Peter RODERICK and Roda VERHEYEN, *see supra* n. 29, pp. 4-38; Michael KERR (2002), p. 14.

³⁶ To the same effect, *see* Michael KERR, *supra* n. 35, p. 19. In July 2004 eight states and New York City have filed a public nuisance suit against five large utilities which operate 174 power plants that emit 64 million tons of CO₂ (10% of the national total) demanding that they reduce CO₂ emissions by a specific percentage each year for at least ten years: Bradford C. MANK, *supra* n. 2, pp. 9-10. An example is a judgment of the High Court of Nigeria of November 14, 2005 Gbembre/Shell Petroleum and Development Company et al.

³⁷ See further *Onrechtmatige Daad (Deurvorst)* II.1.241.

a complicated topic that individual courts, let alone judges, can barely get a grip on it. It would be foolish to assume that *they* can answer questions still heavily debated among leading experts. They could (and should) rely on the opinions of experts.

That, in itself, is quite common. But it hardly solves the problem. Although the prevailing view is that the emission of greenhouse gases greatly contributes to the change of climate, opinions are divided as to the level of (relatively) “innocent” emissions, the desirable and available alternatives and the negative aspects of the latter. It is quite a step to ask courts to decide those points, even if politicians avoid that responsibility. But there is no alternative, as long as politicians and private companies don’t take global climate change sufficiently seriously.

So, for the time being, and perhaps desperately hoping that politicians will take the issue more seriously in the very near future, courts will be called upon to establish how far governments and private companies must be compelled to reduce the emission of greenhouse gases, I think.³⁸ That is quite something, if for no other reason than that courts have only the scientists indication on (potential) side-effects of such reductions. Relying on experts is, to some extent, a tombola. As so often, the outcome is dictated by the expert in question.

To a considerable extent, the threat of climate change can be avoided by using clean sources of energy (such as solar energy). It is difficult to understand why this point is not given more attention. This makes the courts task easier, in that it could urge the defendant to embark on using one of these alternatives. But the question remains to *which* extent oil and gas need to be replaced by “clean energy”. Besides, an injunction to install, say, solar energy for 30% of the energy-demand presupposes that effective alternatives are available. On the very short term they are probably not. Those affected should be given just enough time to buy and install the required equipment.

The Rocky Mountains Institute (RMI) claims that greenhouse-gas emissions are a by-product of uneconomical waste of resources. Being more efficient not only reduces emissions, but also saves money. A considerable reduction could be achieved easily and in a cost-effective manner.³⁹

Assuming this is to be the case, I cannot think of any convincing argument why courts could not be persuaded to give an injunction to this effect. This would be advantageous to the world at large and the defendant at the same time.

³⁸ I expect that this would not (necessarily) be different if, and to the extent that, the “required” reduction were laid down in international agreements. Those agreements always are the outcome of international bargaining and by the same token often – if not necessarily – insufficient. It can only be hoped that global climate change – and sustainable development in general – will soon be put on politicians list of top priorities. As soon as these handle the issue adequately, there is no further room left for courts, assuming the resulting (international) agreements are not mere words.

³⁹ See its website, <http://www.rmi.org/>.

Moreover, and depending on the merits of each individual case, courts could oblige states and private companies to take global warming seriously. E.g., to allow them a given period to consider which adequate steps could be taken and/or to explain why taking such steps would be impossible or too burdensome. If they don't come up with a satisfactory answer, an order to reduce the emission of greenhouse gases substantially may well be appropriate. Knowing that this is likely to happen if they don't take the issue seriously, may well be a sufficient incentive to take adequate steps without *further* pressure.

8. Procedural requirements pave the way?

Once again, it cannot be true that future generations are at our "mercy". Whether as an auxiliary to claims for damages or injunctions, or otherwise procedural provisions may come to the rescue - probably literally. A recent judgement of the Victorian civil and administrative Tribunal⁴⁰ paves the way:

"Ecological processes include processes within the atmosphere of the earth, including its chemistry and temperature. Many would accept that, in present circumstances, the use of energy that results in the generation of some greenhouse gases is in the present interest of Victorians; but at what cost to the future interest of Victorians? Further the generation of greenhouse gases from a brown coal power station clearly has the potential to significant environmental effects. Hence, I think it follows that a planning scheme could contain a provision directed at reducing the emission of greenhouse gases from a coal burning station - not only to maintain an ecological process, but to balance present and future interests."⁴¹

Two European directives might serve as a European basis: the Habitat-directive⁴² and the directive on the assessment of the effects of certain plans and programmes on the environment.⁴³ The latter's recitals speak of "protection and improvement of the quality of the environment, the protection of human health". "Improvement"; this leaves no room for deterioration, I think! Protection of "human health" is a rather broad concept; the wording suggests that it is not confined to today's citizens. The required environmental assessment systems should contain a set of common procedural requirements necessary to contribute to a high level of protection of the environment (art. 1).⁴⁴ According to art. 6 para 1 an environmental report, if required⁴⁵, shall be prepared in which the likely significant effects on the environment of implementing the program, are identified, described and evaluated.

⁴⁰ Australian Conservation Foundation v Minister for Planning, [2004] VCAT 2929 (29 October 2004).

⁴¹ See *supra* n 40, p. 43.

⁴² 1992/43 EC, L 206, 1992/07/22 of May 21 1992.

⁴³ 2001/42/EC, L 197/30, 21/07/2001 of June 27 2001.

⁴⁴ Art. 6 EC Treaty also promotes "sustainable development", which obviously includes future generations.

⁴⁵ See art. 3.

Although the national or local governments will have a margin of appreciation, I believe that they do not have the option not to take the interests of future generations properly into account. If they fail to do so, the court could give orders to that effect.

9. *The legal basis for claims*

“Nowhere in the age-old history of the laws of war – ancient or modern – is there found a principle which permits poisoning of the enemy forces, leave alone the poisoning of the enemy population en masse.”⁴⁶

There are striking similarities⁴⁷ with sustainable development, global climate change and poverty. The most obvious difference is the scale, which will, in most cases of global climate change and unsustainable development be considerably wider compared with the “average” use of nuclear weapons, however disastrous they inevitably are.

International public law and international conventions would probably be the best, that is the most appealing basis for claims, given their international character. All the more so as they cannot be easily “overruled” by national legislators.

At least some basis can be found in the ICJ’s jurisprudence,⁴⁸ as well as in some international conventions.⁴⁹

In two impressive dissenting opinions to the ICJ’s Advisory Opinions on the Legality or the threat of use of nuclear weapons in armed conflicts (nr 93) and the Legality of the threat or use of nuclear weapons (nr 95) Judge Weeramantry elaborates on a variety of topics. He points out that there is an increasing awareness of the fragility of the global environment. He quotes a well known text, saying that

“Obligations erga omnes, rules jus cogens, and international crimes respond to this state of affairs by permitting environmental wrongs to be guarded against by all nations.”

The facts are, he reiterates, so compelling that they

“do not admit of any exceptions, however powerful the actor or compelling the purpose, (...)

⁴⁶ Dissenting opinion of Judge Weeramantry in the ICJ Advisory Opinion of July 8, 1996 no. 93 on the Legality of the threat or use of nuclear weapons in armed conflicts § III.7.

⁴⁷ Admittedly, there are differences also.

⁴⁸ Edith BROWN WEISS (1997); Report of the joint OHCHR-UNEP seminar on human rights and environment 16 January 2002, conclusions of the meeting of experts .

⁴⁹ See Bradford C. MANK, *supra* n. 2, p. 17, Joy-Dee DAVIS, *see supra* n. 34, p. 7 and 25 ; Karin ARTS and Joyeeta GUPTA, in Nico SCHRIJVER and Friedl WEISS, *see supra* n. 14, p. 22; Ximena FUENTES, *supra* n. 14, p. 7; BURGESS SALMON, *see supra* n. 30; Richard S.J. TOL and Roda VERHEYEN (2004).

There is a State obligation lying upon every member State of the community of nations to protect the environment, not merely in the negative sense of refraining from causing harm, but in the positive sense of contributing affirmatively to the improvement of the environment.”⁵⁰

He further stresses that the right to health has been recognised as a human right, referring to several global implementation measures.⁵¹

According to principle 1 of the Rio Declaration on Environment and Development human beings are entitled to a healthy and “productive” life in harmony with nature. Environmental protection shall be an integral part of the development process (principle 3). States shall enact effective environmental legislation; they shall develop national law regarding liability and compensation of victims of pollution and other environmental damage (principles 11 and 13). The ILA New Dehli Declaration of Principles of International Law relating to Sustainable Development points to the responsibility of States to ensure that activities within their jurisdiction or control do not cause significant damage to the environment of other states (1.1). It underscores the requirement of access to effective judicial or administrative procedures (5.3).

The African Charter on Human and People’s Rights includes a right of the people to a “general satisfactory environment favourable to their development.”⁵² The EC Treaty starts by saying that “a harmonious, balanced and sustainable development of economic activities (...), sustainable (...) growth (...) a high level of protection and improvement of quality of the environment” must be promoted (art. 2). There is no reason why courts should assume that these are meaningless words. National laws, either procedural or otherwise, may be a basis in concrete cases too.

Also seen from a European perspective, human rights may serve as a basis, more particularly art. 2 (right to life), 3 (prohibition of torture, odd as it may sound), 8 (right of respect for private and family life), 13 (right to an effective remedy) European Convention on Human Rights and art. 1 of the First Protocol thereto.⁵³ This follows from the jurisprudence of the European Court on Human Rights (ECHR).

In *Taşkin and others v. Turkey*⁵⁴ the ECHR first provides an overview of relevant international texts on the right to a healthy environment (par. 95-97). It subsequently points out in par. 110

⁵⁰ Nr 93, Part II, IV, *infra* 1 a and c.

⁵¹ Nr 93, Part II, IV *infra* 2 b and c.

⁵² BARRESI, see *supra* n. 22, p. 77.

⁵³ See for more details annotation by Alkema of ECHR November 30, 2004, *Nederlandse Jurisprudentie* 2005, 210, [2005] E.H.L.R. Issue 2 p. 203 and J.M. Verschuuren, *Invloed van het EVRM op het materiële omgevingsrecht in Nederland*, *preadvies Vereniging voor bestuursrecht* 2004 p. 253.

⁵⁴ ECHR November 10, 2004.

“that Article 8 [of the European Convention on Human Rights] applies to severe environmental pollution which may affect individuals’ well-being and prevent them from enjoying their homes in such a way as to affect their private and family life adversely, without, however, seriously endangering their health (...)

The same is true where the dangerous effects of an activity to which the individuals concerned are likely to be exposed have been determined as part of an environmental impact assessment procedure in such a way as to establish a sufficiently close link with private and family life for the purposes of Article 8 of the Convention. If this were not the case, the positive obligation on a State to take reasonable and appropriate measures to secure the applicant’s rights under paragraph 1 of Article 8 would be set at naught.

(...)

116. Where a State must determine complex issues of environmental and economic policy, the decision-making process must firstly involve appropriate investigations and studies in order to allow them to predict and evaluate in advance the effects of those activities which might damage the environment and infringe individuals’ rights and to enable them to strike a fair balance between the various conflicting interests at stake (...). The importance of public access to the conclusions of such studies and to information which would enable members of the public to assess the danger to which they are exposed is beyond question (...). Lastly, the individuals concerned must also be able to appeal to the courts against any decision, act or omission where they consider that their interests or their comments have not been given sufficient weight in the decision-making process.”

The direct effect of toxic emissions on someone’s right to respect for his private and family life is also covered by Article 8.⁵⁵ The Court underscores that the European Convention on Human Rights is intended to guarantee rights that are “practical and effective” and not “theoretical or illusory”.⁵⁶ It is hardly a giant step to apply this reasoning to climate change, I think.⁵⁷

A recent case of the ECHR (Öneryildiz/Turkey)⁵⁸ was about a rubbish tip, in operation since the early 1970s. When this first started, the area was still uninhabited. But, over the years basic homes were built, be it without any authorisation. This developed into a small slum village. It was known that the tip gave rise to a major health risk for the inhabitants. In 1993 a methane explosion occurred; thirty-nine people died. The Court held:

“ 71 (...) the Court reiterates that Article 2 does not solely concern deaths resulting from the use of force by agents of the State but also, in the first sentence of its first paragraph, lays down a positive obligation on States to take appropriate steps to safeguard the lives of those within their jurisdiction (...).

The Court considers that this obligation must be construed as applying in the context of any activity, whether public or not, in which the right of life may be at stake, and a fortiori in the case of industrial activities, which by their very nature are dangerous (...)

⁵⁵ ECHR February 19, 1998, *Guerra and others v. Italy*, Reports of Judgements and Decisions 1996-IV pp 1505 par. 62; ECHR November 16, 2004, *Moreno Gómez v. Spain*, ECHR 2005, 12 par. 54.

⁵⁶ ECHR June 24, 1993, *Papamichalopoulos and others v. Greece*, Series A no. 260-B par. 42.

⁵⁷ Still, one should bear in mind that there are some judgements that might arguably be slightly more ambiguous; see e.g. ECHR June 9, 2005, *Fadeyeva v. Russia*.

⁵⁸ ECHR November 30, 2004, [2005] *European Human Rights Law Review*, Issue 2, 203 ; see inter alia Cherie BOOTH and Dan SQUIRES (2006), pp. 7-117.

89. (...) Art. 2 “indisputably applies in the particular context of dangerous activities, where, in addition, special emphasis must be placed on regulations geared to the special features of the activity in question, particularly with regard to the level of the potential risk to human lives. They must govern the licensing, setting up, operation, security and supervision of the activity and must make it compulsory for all those concerned to take practical measures to ensure the effective protection of citizens whose lives might be endangered by the inherent risks.”

Moreover, the Court held that art. 1 First Protocol was violated, which highlights that potential damage to property must also be given due regard. To the best of my knowledge, there is still no precedent that the same goes for life-endangering activities concerning future generations. But it would be difficult, if at all possible, to explain why the answer could be in the negative, as *many more* people are involved.

10. *The precautionary principle*

No doubt, defendants will – among many other issues – harp on the remaining uncertainty of a) global warming as such, b) its causes in general and in a particular case and c) the measures to be taken.

Even *assuming* that these defences have factual basis, given the present state of the art (science), it does not seem highly likely that courts will be very sensitive to them. Over the last two decades, the precautionary principle is firmly embedded in national and international law.⁵⁹

Principle 4.1 of the 2002 New Dehli ILA Declaration of Principles of international law relating to sustainable development⁶⁰ reads:

“A precautionary approach is central to sustainable development in that it commits States, international organizations and the civil society, particularly the scientific and business communities, to avoid human activity which *may* cause significant harm to human health, natural resources or ecosystems, including in the light of scientific uncertainty” (italics added).

Art. 4.2 adds that sustainable development and the precautionary approach extend to accountability, planning and consideration

“d. in respect of activities which may cause serious long-term or irreversible harm, establishing an appropriate burden of proof on the person or persons carrying out (or intending to carry out) the activity.”

The measures should not “result in economic protectionism” (principle 4.4).

⁵⁹ See further e.g. Michael FAURE and Ellen VOS (2003). Chapter 2 (in english) is about the principle in international environmental and trade law. See also Karin ARTS and Joyeeta GUPTA, see supra n. 49. pp. 519-520. The Supreme Court of India states that there is “no hesitation in holding that the precautionary principle and polluter pays principle are part of the environmental law of India”; Soura Subha GHOSH (2005); Joy-Dee DAVIS, see supra n. 34, p. 30.

⁶⁰ See also Communication from the (EU) Commission on the precautionary principle, COM (2000) 1.

The Rio Declaration is concise, but crystal clear on this point:

“Principle 15. In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

11. Who can be sued?

If the many obstacles briefly dealt with before can be overcome, it seems beyond reasonable doubt that national states could be sued. It is true, judges should always keep in mind that they are not politicians and that they neither can nor should make policy choices. That is equally true where politicians fail to make those choices. But courts have some manoeuvring space, I think, and they cannot easily escape the heavy burden of using this where that is clearly appropriate.⁶¹

Once again the European Court on Human Rights paves the way. In the Öneriyildiz-case the local mayors were only found guilty for minor offences. The ECHR holds:

“96 (...) the national courts should not under any circumstances be prepared to allow life-endangering offences to go unpunished.”

If such offences⁶² must be punished, it seems obvious that they must a fortiori be avoided in case of unsustainable development. If politicians abstain, courts form the last resort. The Preamble of the Universal Declaration of Human Rights puts it persuasively:

“disregard and contempt for human rights have resulted in barbarous acts which have outraged the conscience of mankind, (...) whereas it is essential, if man is not to be compelled to have recourse, as a last resort, to rebellion against tyranny and oppression, that human rights should be protected by the rule of law”.

12. The “after-you argument”

Last but certainly not least: if smaller countries or companies would (be compelled to) take the lead, this will be of little (though probably some) help for the world at large. So courts may feel reluctant to urge “their” companies or countries to take far-reaching – and possibly painful – steps, if at the same time other (major) countries or companies refrain from taking any steps (the “after-you-argument”). The argument approximates the American “redressability-requirement”. The latter is

⁶¹ I find § 107 of the Öneriyildiz-judgement (discussed in § 9 above) slightly ambiguous in this respect. It follows, anyhow, that the court must respect at least some margin of appreciation of the authorities.

⁶² I am far from suggesting that they are not serious. But sustainable development and global climate change are even considerably more.

about the question whether a favourable decision by the court would actually redress – solve or prevent – at least some of the problems causing the plaintiffs injuries.⁶³

It can only be hoped and may be expected, I think, that courts will not be too sensitive to the devil's advocate-arguments referred to, as this would imply that no progress whatsoever can be achieved.⁶⁴ All the less so, as – say – large emissions of CO₂ may not only harm the atmosphere, but have other negative side-effects. If the latter can be prevented by reduction of the CO₂ emissions, the “after-you argument” does not come into play altogether. After all, it is invalid as far as the side-effects are concerned.

Turning again to RMI's claim, dealt with in § 7 above, courts should be prepared, as a bare minimum, to ignore the “after-you argument” to the extent reduction can be achieved at no (or little) cost.⁶⁵

13. Common but differentiated responsibilities: One world with several speeds?

A very small number of countries is “liable” for a considerable part of the future's doom. Among them relatively poor countries such as China and in the foreseeable future probably India, Russia and Brazil. I tend to think that “we” can reasonably insist that these significantly reduce the emission of greenhouse-gase in their countries. But it would be unfair – and probably useless – to require that they do so entirely, or even preponderantly, at their own expense.

First, the greater part of the climate change is not caused by them but primarily by the United States and Europe. Secondly, they have other legitimate priorities, such as, the eradication of poverty.⁶⁶ It would be greatly overdemanding to require that they give only priority to the change of global climate.

In other words, the rich western world, which has caused the greater part of the immense problem as it now emerges, will have to contribute significantly to the cost of taking the necessary steps. Even to those who do not accept this as our *responsibility*, it should be obvious that this is in our own *interest*. Otherwise the necessary steps won't be taken (in due time).⁶⁷

⁶³ Bradford C. MANK, see supra n. 2, p. 27.

⁶⁴ See further Bradford C. MANK, see supra n. 2, pp. 27-28 and the quotation of Judge Gould's concurring opinion in Covington, cited at p. 42.

⁶⁵ This depends on whether RMI's claims are justified. I have no reason to believe they are not, but as a lawyer I cannot judge it.

⁶⁶ See, more generally, Yoshiro MATSUI (2004); see also supra n. 1.

⁶⁷ See, more generally, Joyeeta GUPTA (1997).

It is in the best interest of all – rich and poor countries, present and future generations – to cope with global climate change and sustainable development in general as soon as can practically be achieved. However, we cannot reasonably expect poor countries to sacrifice their population. Poverty will need to be eradicated at the same time. That is quite a challenge. It inevitably means that the rich part of the world has to contribute generously. “We” could – and should, I think – ask something in return. It would be a great mistake if the poor countries would get the chance to increase the level of damage to the environment and greenhouse gases.⁶⁸

We have a common responsibility. But we are in different positions in that the rich part of the world will have to provide the greater part of the money, whereas all countries need to cooperate to reach the same goals: eradication of poverty, significant reduction of greenhouse gases and otherwise improvement of the environment.⁶⁹

14. Doom or reality?

Ignorance, or perhaps I should say indifference, is the key to the problem of this contribution. Many may feel comfortable to extend that to the legal consequences of our common “après moi le déluge-attitude”.⁷⁰ That might well turn out to be a costly mistake.

The asbestos-litigation, conducted all over the world, is a telling example. In the fifties, sixties and even seventies asbestos was perceived as a “miracle prescription”, although its dangers were known. Yet, for reasons difficult to understand (today), society (i.e. governmental bodies and private companies) did not care. This has – foreseeably – caused the death of enormous numbers of people. Courts from all over the world have held the defendants liable, indifferent to their arguments: what we did was in accordance with the state of the art; everybody else did it, and the government gave its blessing. The French Supreme Court even went so far as to hold that exposing employees to asbestos dust was, already decades ago, a “faute inexcusable”.⁷¹ Asbestos is just an example.⁷²

There are striking similarities. Even more so, if one bears in mind that as early as 1896 (!) a Swedish chemist proposed the theory that carbon emissions from coal and other fossil fuels could lead to

⁶⁸ In a similar sense Richard S.J. TOL and Roda VERHEYEN, see supra n. 49, p. 1128.

⁶⁹ To the same effect art. 3 ILA New Delhi Declaration; see also principle 6 of the RIO Declaration. See, more generally, Ximena FUENTES, see supra pp. 25.

⁷⁰ I realize, of course, that there are promising signs too. Moreover more intrusive reports threaten our sound sleep. The press has become more active in this field. There is a growing number of international groupings trying to stem the tide. E.g. the MDG's, the Kyoto Protocol, the recent G8-meeting are extremely important, though unfortunately far from sufficient.

⁷¹ See Philippe BRUN (2002), pp. 203-204.

⁷² See e.g. Peter RODERICK and Roda VERHEYEN, see supra n. 29, pp. 4-37.

global warming.⁷³ So, private companies and national states cannot take it for granted that they are immune from legal action. They are certainly not.

Those who still feel comfortably safe, should bear in mind that litigation is already on the increase.⁷⁴ I cannot think of any good reason why this development is likely to be reversed.

15. Can we afford the necessary measures?

Prima facie, it might seem that tackling climate change, deterioration of the environment, poverty and sustainable development goes beyond what society can afford. It is open to debate whether that is true. The amounts needed are more likely to be *relatively* limited, at least for the “western world”.⁷⁵ That goes for these amounts as such; and it becomes all the more credible when one takes into account the immense cost of e.g. fighting terrorism, as convincingly stressed, time and again, by inter alios Jeffrey Sachs.⁷⁶

Meanwhile, whether we can we afford the necessary steps is hardly a relevant question.⁷⁷ There is no alternative, except if we choose to burden future generations with the heavy toll of our mismanagement.

Besides: the negative effects of our way of living should not only be perceived in economic terms. We must also look at the toll in human terms: we simply don't have the right to sacrifice the life and well-being of billions of people, nor those of other co-habitants of our planet. This also implies that we should be wary of those who advocate the discounting for multigenerational benefits.⁷⁸

⁷³ MANK, see supra n. 2, p. 12.

⁷⁴ That holds, inter alia, true for Canada and Alaska (claims by the Inuit People), the United States (see Bradford C. MANK, supra n. 2), Germany (Greenwatch, briefing, to be downloaded from internet); Australia, Argentina, Belize, Nepal, Peru (BURGES SALMON, see supra n. 30) and Nigeria (see infra).

⁷⁵ As to climate change, compensation by the OECD to developing countries would imply a transfer of up to 0,25% of GDP in the short run and up to 4% in the long run; Richard S.J. TOL and Roda VERHEYEN, see supra n. 49, p.1128; e.g. measures to provide clean water, cut world hunger and prevent soil erosion would require \$ 85 billion annually; see Renner. o.c . p. 15/6.

⁷⁶ See also RENNER, see supra n. 2, p. 15 .

⁷⁷ Similarly John D. Podesta, in a speech addressed to the United Nations on February 17, 2005. Mikhail Gorbachev rightly observed that we should promote “an approach that reasonably limits consumerism and which promotes the virtue of “enoughness””, in Terra Curanda, Vol. 1, number 1, July-September 2001 p. 8; see also Earth Dialogues Barcelona (Green Cross International), Final Report p. 10.

⁷⁸ See for a more elaborate discussion e.g. Daniel A. FARBER (2003).

16. *What could usefully be done?*

It would be greatly unsatisfactory if lawyers would be the only ones to gain from the deplorable state of affairs I have described. Action must be taken before the lawyers come to the forefront. How could this be achieved?

It seems essential to bring about a change in attitude of policy and decision makers and of the public at large towards the grave risks and consequences that the world is facing from deterioration of the environment, the change of climate, unsustainable development and poverty; and to make the world understand that the catastrophes that otherwise will inevitably follow, can be avoided by taking affordable steps. This requires

- a) outlining of the scope, the relative urgency and the effects of interdependence of the issues referred to;
- b) clearly analyzing and describing the consequences to be expected if effective steps are not promptly taken;
- c) identifying adequate policy responses;
- d) setting out the steps required to implement the necessary policies to avoid the (arising or continuation of the) deleterious consequences;
- e) determining the reasons for the apparent lack of political will to bring about adequate solutions and the steps required to improve the quality of information provided by mass media;

That will not be an easy task, but it can be done.⁷⁹

In addition, a group of internationally well known, independent lawyers of undisputed repute should be set up to do research on the feasibilities of “legal action”. This will help to create a firm incentive to take the necessary steps without litigation.

17. *Final observations*

Probably no generation before has done more harm to the world than ours has. Unless we are prepared to take firm, adequate and speedy action, the present generation, our children and grandchildren are going to face appalling difficulties. Future generations will hold us in scorn, if we hesitate to take courageous steps and to face our responsibility.

⁷⁹ Christopher Pinto has suggested a “worldwide cooperation among distinguished individuals with impeccable ethical credentials, and selected so as to represent a broad spectrum of cultures, in the formulation of culture- and ideology-free human values”, Christopher PINTO (2004), see supra n. 14, p. 51. The idea as such is valuable, although it will be difficult (if not impossible) to formulate culture and ideology-free human values.

The wealthy countries must take the lead, financially and otherwise. Strong and persistent wake-up calls are urgently required.

In the final act of Boito's *Mephisto*, Faust muses:

“il Real fu dolore, e l'Ideal fu sogno.”

The former is certainly true; the latter, not necessarily. If concrete and courageous actions are taken, the doom scenario's won't materialise. And so: let's stop dreaming. Wörter sind genug gewechselt. Time for action has come.⁸⁰

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⁸⁰ To the same effect Shengman Zhang, director of the World Bank, quoted by Benjamin William MKAPA (2004), “Development Outreach”, Issue October 2004, p. 19.

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