An Analysis of the Difficulties Associated with Establishing State Responsibility for Human Rights Violations Occurring as a Result of Climate Change

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Abbreviations

- ACHPR – African Charter on Human and People's Rights (1981)
- ACIA – Arctic Climate Impact Assessment

- DASR – Draft Articles on State Responsibility
- ECHR – European Convention for the Protection of Human Rights and Fundamental Freedoms (1950)
- ECtHR – European Court of Human Rights
- GHG – Greenhouse Gases
- ILC – International Law Commission
- IPCC – Intergovernmental Panel on Climate Change
- ICCPR – International Covenant on Civil and Political Rights (1966)
- ICESCR – International Covenant on Economic, Social and Cultural Rights (1966)
- IACHR – Inter-American Convention on Human Rights (1969)
- IHRL – International Human Rights Law
- ICJ – International Court of Justice
- PCIJ – Permanent Court of International Justice
- UNFCCC – United Nations Framework Convention on Climate Change
- UDHR – Universal Declaration of Human Rights (1948)
- UNEP – United Nations Environment Programme
- UNCED – United Nations Conference on Environment and Development
- WMO – World Meteorological Organisation

Introduction

Despite conclusive and significant scientific evidence to the contrary, there is still some considerable scepticism over the nature, causes and consequences of climate change[1]. However, it is becoming increasingly apparent that extreme weather events such as floods, droughts and cyclones, as well as retreating glaciers and melting sea ice at the North and South poles, are all indicative of a warming world[2]. Some groups and governments across the world most seriously effected by the adverse consequences of climate change are beginning to pursue policies which aim to hold states accountable for the damage they have inflicted on their environment through the emission of greenhouse gases by establishing the international legal responsibility of these states for the harm suffered. Although human rights and the environment have been linked by international judicial bodies, 'there has been no formal recognition by any national or international body that global warming implicates human rights or that states have obligations to protect human rights [from] violations due to global warming'[3].

A small number of these groups have included violations of human rights within their petitions or applications. For instance, the Inuit peoples of the Arctic filed a petition at the Inter-American Commission in 2005 against the United States which claimed that the failure of the US to control emissions of GHG violated a variety of the rights protected within the system[4]. Another example is the tiny atoll nation of Tuvalu, which became a member of the United Nations in 2000 and has been pursuing since then a strategy which aims to draw the world's attention to the climate change issue as a whole, and in particular to sea level rise and its consequences. Tuvalu, 400 miles north of Fiji in the Pacific Ocean, is a striking example of those states that 'face the likelihood of the disappearance of the whole or a significant part of their surface area for environmental reasons', rendering the state uninhabitable and forcing its citizens and residents to leave[5]. The government announced in 2005 that it was planning to sue corporations in Australia and the United States which produce GHG for damages, which followed its 2002 announcement of plans to take the two countries to the International Court of Justice (ICJ) for failing to reduce their GHG emissions[6]. The aim of the action was to secure damages, and assurances from the government of Australia that it would permit entry to its territory by the so-called 'environmental refugees' from the islands.

This paper is not primarily concerned with the international legal routes pursued by states in order to access redress for climate change damage on their territory, but focuses instead on the routes open to individual victims through the framework of international human rights law. In this regard the paper seeks to analyse the legal difficulties faced by individuals in their pursuit of accountability and redress. The broad meaning of state responsibility denotes conferring responsibility for prevention, mitigation and minimisation of damage onto a party[7], thereby going beyond the apportionment of reparations. This is the meaning used and expanded upon by the International Law Commission in their Articles on State Responsibility and will be the understanding of the concept used in this paper.

There is an increased willingness on the part of some governments and representative non-governmental organisations to make climate change damage a matter for international litigation. This paper does not seek to ascertain the likelihood of each case's success, but seeks instead to identify and analyse the general difficulties associated with the establishment of state responsibility for climate change damage, which is the core purpose of the various petitions. In particular, this paper will focus on the difficulties associated with doing this in respect of breaches of the right to life that have occurred as a result of climate change.

Part One of this paper will provide an overview of the climate change problem and will consider its impact on the right to life. It will also provide a broad introduction to the content and scope of the international treaty regimes relevant to this paper and the various approaches that have been taken towards human rights and the environment in the regional systems. In addition, a section will be devoted to considering the scope for the extra-territorial application of the right to life in the relevant international human rights treaty regimes.

Part Two will look in detail at the international law on state responsibility. It is now an accepted rule of customary international law that 'every internationally wrongful act of a state entails the international responsibility of that state'[8]. The attribution of state responsibility for internationally wrongful acts is governed by relatively newly accepted rules on the international legal plain. In the context of this paper it is necessary to consider the difficulties associated with finding a breach of an international obligation in relation to the right to life and climate change, and to consider those difficulties associated with attributing the outcome of the breach to one or more states.

Part Three will look at each of the difficulties identified in parts one and two, and expand the analysis of them. In particular this part of the paper will look at causation, attribution and due diligence in relation to the paper's subject matter.

The unique nature of the climate change problem has led some commentators to suggest that 'the development of new norms of a customary law character specifically tailored for the protection of the environment' is called for[9]. Its unique character is clear when one considers some of its most striking aspects: the cumulative nature of its causes; and the multiplicity of parties which contribute to the problem[10]. Both of these aspects are at the core of the difficulties associated with establishing state responsibility and will be explored in depth in part three. It is beyond the scope of this paper to consider the solutions to these difficulties. The aim is simply to identify and explore them using the internationally accepted definition and content of the law on state responsibility as a useful framework.

It is submitted that international law is at present ill-equipped to deal with the adverse effects of climate change for the reasons which will be outlined. This is particularly true of international human rights law. As regards customary international law more state practice and jurisprudence would be needed before it could be accurately postulated that a rule allowing for the establishment of state responsibility for human rights violations occurring as a result of climate change has emerged. As regards treaty law, the judicial bodies attached to the various international human rights treaties need to become more willing to explore ways in which the difficulties surrounding evidence of wrongdoing on the part of the state, and attribution of acts harmful to the environment, can be mitigated in order to provide victims of such human rights violations with adequate means of apportioning responsibility.

Part One: Overview of the Problem

This section will first provide a broad introduction to the problem of climate change, focusing in particular on how the effects of climate change are impacting on human rights in the Arctic and in Tuvalu. These areas are two of the worst effected and so serve as useful examples for the purposes of this paper.

Secondly, this section will consider the international treaty regime related to climate change, focusing on the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol as being the two major instruments of relevance in the area. Although it is clear that mere ratification, or even compliance, with these mechanisms would still be an inadequate response to the adverse effects of climate change, it remains the best first step currently available[11]. The inadequacies of the present enforcement mechanism will be explored in order to

illustrate the general problems facing the international community in this area. Although the primary legal obligation of interest here is the right to life it is illustrative to consider other obligations concerning climate change which are binding on states, especially in view of the choices made by states and groups suffering harm, who tend to focus their attentions on states who are failing to meet the targets set out for them therein.

This part will also consider the scope and content of the right to life in the context of climate change damage. In terms of the difficulties associated with establishing state responsibility for violations of the right to life that have occurred as a result of climate change, the extra-territorial application of human rights treaties will be explored in light of recent jurisprudence from the European and Inter-American systems.

The climate change problem

While the scientific community as a whole is in agreement that global climate change has an anthropogenic cause, there is a certain amount of divergence of opinion when it comes to the precise details of the consequences of climate change[12]. The most reliable source of information, agreed upon by both scientists and governments through a process of intensive periodic negotiations, are the reports compiled by the Intergovernmental Panel on Climate Change (IPCC). Their most recent report was published in February 2007 and 'describes progress in [our] understanding of the human and natural drivers of climate change, observed climate change, climate processes and attribution, and estimates of projected future climate change'[13]. In the report the authors point specifically to the widespread melting of snow and ice and rising global average sea levels as evidence to substantiate their claim that 'warming of the climate system is unequivocal'[14]. Extreme weather events such as droughts, floods, heavy precipitation, heat waves and intense tropical cyclones are also pointed to as evidence of the problem[15].

For the purposes of this paper the fact of the existence of climate change is only part of the issue. Much more problematic is the fact that 'scientists can't yet draw a straight line from emissions to a specific climate impact'[16]. Although they are able to 'characterize the extent to which greenhouse warming hiked the odds of a particular climate event', they are as yet unable to prove a connection between a particular outcome of such a climate event and a single specific polluting state[17]. Given the severity of the consequences witnessed thus far it would appear prudent to explore the difficulties that flow from this lack of scientific certainty in order that affected parties might target their efforts in an efficient and productive manner.

While the problems associated with international legal disputes on climate change have been explored and discussed by a variety of authors, very few that the present author is aware of have written specifically about the problems associated with international legal disputes arising out of the human rights implications of climate change damage[18]. The climate change issue is just one of a range of environmental challenges presented by the post-industrial modern era, which also include acid rain, ozone depletion and the loss of biodiversity in global ecosystems[19]. The principle problem is that, in these circumstances, there is no direct cause and effect; no easily traceable nexus of responsibility between the polluting states and the damage which results. This damage does not only result from the activities of a single state, but from the polluting activities of the multiplicity of states in the international community. While the international legal regime concerned with the regulation of environmentally hazardous activities, such as that which is concerned with transboundary air pollution for example, is relatively well-developed, that concerning climate change and climate change damage is not so.

In the 2005 petition submitted to the Inter-American Commission by the Inuit Circumpolar Conference (ICC)[20], acting on behalf of all Inuit peoples in the Arctic regions, the view is taken that those states which have contributed the most to the problem ought to be the ones against which cases of this sort should be brought. The United States is the subject of this particular action because, in the reasoning of the petitioners, it is 'by any measure, the world's largest emitter of greenhouse gases, and thus bears the greatest responsibility among nations for causing global warming', and also because 'it refuses to join the international effort to reduce emissions'[21]. This seems a logical first step, though not one, perhaps, that is particularly conducive to persuading that country to join the international treaty regime on climate change. The Arctic Climate Impact Assessment (ACIA) report of 2005 stated that 'the increasingly rapid rate of recent climate change poses new challenges to the resilience of arctic life'[22]. As regards

the Inuit peoples, 'warming is likely to disrupt or even destroy their hunting and food-sharing culture as reduced sea ice causes the animals on which they depend to decline, become less accessible, and possibly [to] become extinct'[23]. Global climate change has already resulted in the relocation of some settlements, such as Shishmaref which is a town situated on an island near the Seward Peninsula in Alaska[24]. The relevance of the melting sea ice to the human rights and climate change issue is clearest when considered in the context of the Inuit. The ice 'is an essential element of the Inuit's ability to use and enjoy their land. Both the shift in the freezing cycle and the depletion of the sea ice have made the Inuit's territory not only less valuable but also dangerous'[25]. The petition, and subsequent submissions at hearings of the Commission, have referred to the Framework Convention on Climate Change, which will be considered in depth below:

'The petition urges the Commission to recommend that the United States adopt mandatory limits to its emissions of greenhouse gases and cooperate with the community of nations to "prevent dangerous anthropogenic interference with the climate system", the objective of the UN Framework Convention' ***[26]****.*

It also points out the very great contribution that the Inter-American Commission could make to the field of international human rights law were they to hold against the United States.

Given the scale and importance of the issue, and the increasing numbers of people who are already adversely effected by climate change damage, it seems prudent to explore ways and means of attaching responsibility not only to the world's largest emitters, but also, concurrently, to other emitters as well[27]. There are provisions within the law on state responsibility, which will be discussed in detail below, which provide for situations in which there are a multiplicity of responsible states, and a multiplicity of injured states.

The Climate Change Treaty Regime

The current international treaty regime for dealing with climate change is not as well developed as that which deals with other sorts environmental damage. In the climate change field the 1992 UN Framework Convention on Climate Change is the principle mechanism. It sets out general principles and obligations; creates 'basic institutional arrangements'; and provides 'procedures for the adoption of detailed obligations in a subsequent protocol'[28]. The original aim of the treaty was to impose binding emissions reduction targets on signatory states, but it became clear during the drafting process that such a formula would not meet with the approval of the United States or OPEC[29]. However, as Article 2 states:

'The ultimate objective of this convention and any related legal instrument that the Conference of the Parties may adopt is to achieve … stabilization of greenhouse gas concentration in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure food production is not threatened and to enable economic development to proceed in a sustainable manner'[30].

The phrase 'ultimate objective' is the key to understanding the drawbacks of this text. No specific emissions reduction targets are set within the Framework Convention, to which a total of 190 states are party in comparison with Kyoto's 174 states party[31]. This was a concession to certain states in order to secure their signature and ratification but renders the Convention itself rather weak. Despite these concessions the United States has refused to sign up to the Kyoto mechanism[32]. Under the Vienna Convention on the Law of Treaties (1969) the principle of *pacta sunt servanda* is enshrined in Article 26: 'Every treaty in force is binding upon the parties to it and must be performed by them in good faith'[33]. This is an accepted rule of customary international law and is substantiated by numerous precedents[34]. Another important rule for the purposes of this paper is contained in Article 18 of the Vienna Convention:

'*A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when: a) it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty; or b) it has expressed its consent to be bound by the treaty, pending the entry into force of the treaty and provided that such entry into force is not unduly delayed*'[35]

According to the International Law Commission, 'that an obligation of good faith to refrain from acts calculated to frustrate the object of the treaty attaches to a State which has signed a treaty subject to ratification appears to be generally accepted'[36]. The objective of the UNFCCC is clearly stated in Article 2, above, and so it is clear that no state party should act in such a way as to jeopardise this aim.

The Kyoto Protocol should be 'regarded as a highly significant step in the elaboration of an effective legal regime to combat global warming'[37]. The principle reason for this is the introduction of emissions reduction targets that are legally binding on developed states and which are designed to impose these targets according to an individual state's level of emissions and capacity for mitigation and reduction of such emissions[38]. The target for developed countries is 'a total reduction of greenhouse gas emissions … of at least 5 per cent when compared to their 1990 emission levels'[39], a figure which is less than satisfactory to the environmental lobby.

The weak condition of the Kyoto regime necessitates a stronger enforcement mechanism at the international level. However, when compared with other environmental agreements, the Kyoto Protocol has a relatively strong enforcement mechanism. The Marrakesh Accords, which 'provide detailed prescriptions for a compliance system' for Kyoto, in the form of an Enforcement Branch, are 'authorised to apply punitive consequences to countries that fail to comply with their Kyoto obligations'[40]. Importantly, if a country fails to meet its specific reductions targets, it must cover the 'deficit plus an additional 30 per cent in the next commitment period, and loses its eligibility to sell emission permits'[41]. That such an enforcement mechanism even exists, leaving aside its flaws, is evidence of the increased importance given to the climate change issue on the international stage. One author has said that 'recourse to such procedures is evidence of a growing awareness that traditional rules of international law concerned with material breach of treaty obligations and with state responsibility are inappropriate to address problems of environmental treaty implementation'[42]. The system is far from perfect however, and simply the

fact that 'the Marrakesh Accords do not include any enforcement provisions addressing failure by a non-compliant country to accept its punishment' conveys the many difficulties still facing the international community in this area[43]. Another obvious flaw is the political weakness of Kyoto, which stems from the lack of ratification by the Australian government and the notice given by the United States of its intention never to become a party.

In short, as there is no mandatory complaints mechanism under the Framework Convention, and the Kyoto system leaves a great deal to be desired, the role of international human rights law is all the more important in the context of climate change. There seems to be no other option for individual victims of climate change damage who have exhausted domestic remedies but to pursue their cases through these channels.

The Right to Life and Climate Change

The right to life places both positive and negative obligations on states. These obligations are commonly known as the duty to respect (the negative obligation) and the duty to protect (the positive obligation)[44]. The right to life is 'the supreme right from which no derogation is permitted even in time of public emergency'[45] and is protected by the following instruments: Article 3 of the Universal Declaration on Human Rights, Article 6 of the ICCPR, Article 2 of the ECHR, Article 4 of the American Convention and Article 4 of the African Charter.

Ramcharan, in *The Right to Life in International Law,* makes these basic observations about the right: that it 'is an imperative norm of international law which should inspire and influence all other human rights'; and that 'the right to life encompasses not merely protection against intentional and arbitrary deprivation of life, but also places a duty on the part of each government to pursue policies which are designed to ensure access to the means of survival for every individual within its country'[46]. Ramcharan characterises the problem of survival as a contemporary problem affecting the right to life and focuses specifically on 'extinction as a result of … living conditions'[47]. Although violations of the right to life are usually associated with arbitrary killings by state security officials, or other forms of arbitrary deprivation, such as the carrying out of the death penalty in the absence of all the requisite judicial safeguards, the right is not one which should be 'interpreted narrowly'[48].

Along this line of thinking, the Human Rights Committee stated in its General Comment on the subject that 'protection of this right requires that States adopt *positive* measures' to 'reduce infant mortality and to increase life expectancy'[49]. This is in keeping with Ramcharan's statements[50]. It has also been stated that Article 27 of the Convention, which reads: 'In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with other members of their group, to enjoy their own culture, to profess and practise their own religion, or to use their own language'[51], should be read to mean that 'culture manifests itself in many forms, including a particular way of life associated with the use of land resources'[52]. The Committee was speaking in terms of indigenous people here, a group whose rights are implicated in climate change damage often

more than most.

As a result of the absence of petition procedures within environmental treaties many cases which concern the impact that environmental harm has had have been brought to international human rights bodies, such as the Human Rights Committee[53]. In *Lubicon Lake Bank v Canada* the Committee found a violation of Article 27 on the grounds 'that historic inequities and more recent developments, including oil and gas exploration, were threatening the way of life and culture of the Band'[54]. In the *E.H.P. v Canada* decision the Committee found that the case raised 'serious issues with regard to the obligation of states parties to protect human life'[55]. The case involved an allegation by a group of Canadian citizens that 'the storage of radioactive waste near their homes threatened the right to life of present and future generations'[56]. These are clearly decisions which are of more particular relevance to the area of environmental law as a whole, but are of interest in the sense that they provide some insight into the current thinking of the human rights body concerning the broad area.

Under the various regional human rights instruments the right to life is also given 'special status'[57]. Article 2(1) of the European Convention on Human Rights reads: 'everyone's right to life shall be protected by law. No one shall be deprived of his life intentionally save in the execution of a sentence of a court …'[58]. In *McCann and Others v the United Kingdom* the Court stated:

'Article 2 ranks as one of the most fundamental provisions in the Convention – indeed one, which in peacetime admits of no derogation under Article 15…it also enshrines one of the basic values of the democratic societies making up the Council of Europe' ***[59]****.*

There is also a positive duty to protect the right to life under the European Convention. In *X v UK* the Court stated that Article 2(1) 'enjoins the state not only to refrain from taking life intentionally but further, to take appropriate steps to safeguard life'[60]. The right to life as it is set out in Article 2 'requires an intentional element' that could pose problems in the field of the environment[61]. The 'intentional element' denotes that if a state knew, or should have known, of the existence of a threat to citizen's lives and thereafter did nothing to prevent the occurrence of the violation or to eliminate or reduce the risk, then that state's responsibility is engaged.

The European Court has dealt in a variety of cases both with the right to life in general and with the right life and the environment in particular. However, the Court often opts to consider these sorts of issues under Article 8, which protects the right to private and family life. This was the case in the *Lopez Ostra* case, which exemplifies 'the developing relationship between international environmental law and international human rights law' at the European level[62]. This case acts as an important 'precedent for bringing other environmental violations before the Court', especially given the fact that the ECHR 'does not in express terms recognise a relationship between human rights and the environment'[63]. The case conveys the notorious difficulty in proving environmental damage[64]. Courts obliged to hear such cases will not usually be furnished with adequate technical or scientific expertise. The facts of this case 'lent themselves to the relatively straightforward and uncontroversial conclusion' that was reached by

the Court[65]. Other cases in this field are unlikely, in the view of Sands, to be as clear cut[66]. Despite this the Court 'did not provide any indication as to how it would proceed when faced with a genuine difficulty in establishing the extent of the environmental harm', insight which may have been illuminating with regard to the climate change issue[67].

Interestingly the Court has acknowledged that the text of the Convention can be interpreted in such a way as to take into account 'the changing social context within which it operates'[68]. Were the requisite scientific evidence ever to emerge that drew a clear line in the nexus between climate change damage and a specific state's emissions then the European Court would be able to hear it and to take it into account. The Court's Rules of Procedure on the matter allow it to 'obtain any evidence when it considers capable of providing clarification on the facts of the case' and to 'ask any person or institution of its choice to obtain information, express an opinion or make a report, upon any specific point'[69].

The approach of the Inter-American system to the right to life is, in general, broader than that of the European system. For instance, emphasis has been placed on state omissions rather than on attempts to prove state acts, a fact that is bound to aid the Inuit in their petition[70]. Additionally, the burden of proof rests on the state in the Inter-American system to prove the claimant(s) wrong[71]. A joint UNEP-OHCHR expert seminar on human rights and the environment made the position clear. The authors provide examples of case law from Argentina, Colombia, Costa Rica and Guatemala which link the right to life to the environment by 'moving the right to a healthy environment up the hierarchy of human rights by recognising it as a fundamental right'[72]. One example is the 1993 Argentinean case *Irazu Margarita v Copetro S.A.* in which the court asserted that 'the right to live in a healthy and balanced environment is a fundamental attribute of people. Any aggression to the environment ends up … becoming a threat to life itself and to the psychological and physical integrity of the person'[73].

In the Inuit petition to the Inter-American Commission the ways in which global climate change has adversely affected the right to life of the group are set out. The authors cite the *Yanomami* case in which 'the Commission established a link between environmental quality and the right to life'[74]. Although this case concerned the construction of a highway through Yanomami territory and the consequent influx of non-indigenous peoples who brought contagious diseases resulting in the death of some members of the indigenous group, it is useful for the purposes of this paper because the Commission found that 'the government's failure to *protect the integrity of Yanomami lands* had violated the Yanomami's right to life, liberty and personal security'[75]. The petition also quotes the Commission's report on the Situation of Human Rights in Ecuador, stating that:

'The realization of the right to life, and to physical security and integrity is necessarily related to and in some ways dependent upon one's physical environment. Accordingly, where environmental contamination and degradation pose a persistent threat to human life and health, the foregoing rights are implicated' ***[76]****.*

The petition goes on to say that 'damage to the Inuit's subsistence harvest violates their right to

life'[77]. On the issue of the Inuit, the US Congress is cited in the Petition as acknowledging that 'no practical alternative means are available to replace the food supplies and other items gathered from fish and wildlife which supply rural residents dependent on subsistence uses'[78]. In more general terms the petitioners point to 'the United States' acts and omissions regarding global warming' as evidence of ways in which the phenomenon violates the Inuit's right to life[79]. They conclude on this point by saying that, as 'climate change has damaged the arctic environment to such an extent that the damage threatens human life … the United States has breached its duty under the American Declaration to protect the Inuit's right to life and personal security'[80]. The Inter-American system has linked environmental degradation and human rights together and has a history of taking innovative approaches to emerging international law issues. It is in this forum that progress towards establishing responsibility for human rights violations occurring as a result of climate change damage is most likely to be made.

It is clear from the foregoing discussion that the right to life is not only of supreme importance and standing in international law, but is also still in a process of development and evolution. The case law and jurisprudence of both the UN human rights treaty monitoring bodies and the regional human rights courts shows that as the social context within which the instruments operate evolves, so do the instruments themselves. Therefore, despite the current lack of scope for victims of violations of the right to life as a result of climate change, the fact of this does not prejudice the emergence of greater scope for the inclusion of these types of violation into our understanding of the law in the future.

The protection under the treaty regimes discussed here is open only to citizens of those states which have ratified the relevant treaty. The obligations of states towards their own citizens are clear and states must protect their own citizens from the adverse effects that global climate change has within its own territory. What is less clear is what obligations are owed by state parties to these treaties to persons outside their territory or jurisdiction, and this is the subject of the next section.

Extra-Territorial Application of the Right to Life

As intimated above, the individual faces an increasing array of threats to their human rights, of which climate change is an increasingly pressing one[81]. While 'human rights were originally devised to protect the individual against the arbitrary exercise of power by authorities of the territorial state', the threat of violations perpetrated by the state outside its jurisdiction or territory also presents difficulties for the protection of human rights[82]. In some areas of law the extra-territorial application of treaty rules is relatively straightforward[83]. Some human rights treaties are quite unproblematic on the subject[84]. Others, such as the ICCPR, the American Convention and the ECHR, raise some difficult issues.

Despite the strict wording in these treaties pointing to an undertaking by states parties to guarantee the human rights provided for in the treaties to persons 'within their jurisdiction', all the respective supervisory bodies agree that 'the applicability of these treaties is not limited to a state

party's conduct on its own territory'[85]. There are two different scenarios in which this may be said to be the case. The first is where 'a state exercises effective control over foreign territory, for example as a result of military occupation'; and the second is where 'a state exercises power and authority over persons by abducting or detaining them on foreign territory'[86]. Further difficulties arise in situations where types of conduct are in evidence which do not fit clearly into either of the two foregoing examples. The issue of climate change damage appears to be one of these, although the literature tends to use the example of extra-territorial killings not preceded by arrest to illustrate the problem[87]. By the production of GHG over and above those levels permitted by the international environmental treaty regime and that have effects outside the territory of the state of origin it cannot be said with any degree of logic that this state has effective control over the state in which the adverse effects of the pollution manifest themselves. In the *Lopez Burgos* case the Human Rights Committee interpreted article 2 of the ICCPR to refer to two independent grounds for the application of the Covenant[88]:

*'although the arrest and initial detention and mistreatment of Lopez Burgos allegedly took place on foreign territory, the Committee is not barred either by virtue of article 1 of the Optional Protocol ("…individuals subject to it jurisdiction…") or by virtue of article 2(1) of the Covenant ("…individuals within its territory and subject to its jurisdiction…") from considering these allegations, together with the claim of subsequent abduction into Uruguayan territory, inasmuch as these acts were perpetrated by Uruguayan agents acting on foreign soil'**[89]**.*

Although these cases are clearly not analogous to the climate change issue, the treatment of the extra-territorial issue in them is illuminating for the purposes of this paper.

Article 1 of the Optional Protocol, according to the Committee, refers 'not to where the violation occurred, but rather to the relationship between the individual and the State in relation to a violation of any of the rights set forth in the Covenant, wherever they occurred'[90]. Further, in Article 5(1) of the Covenant, it is stated that:

*'Nothing in the present Covenant may be interpreted as implying for any State, group or person any right to engage in any activity or perform any act aimed at the destruction of any of the rights and freedoms recognized herein or at their limitation to a greater extent than is provided for in the present Covenant'**[91]**.*

The most important statement made by the Committee is: 'it would be unconscionable to so interpret the responsibility under article 2 of the Covenant as to permit a State party to perpetrate violations of the Covenant on the territory of another State, which violations it could not perpetrate on its own territory'[92]. In his individual opinion on the case, Tomuschat confirmed: 'to construe the words "within its territory" pursuant to their strict literal meaning as excluding any responsibility for conduct occurring beyond the national boundaries would, however, lead to utterly absurd results'[93]. The apparently broad take on extra-territorial application taken in the *Lopez Burgos* communication was tightened considerably by the Committee in General Comment 31. In paragraph 10 it is stated that:

'States Parties are required by article 2, paragraph 1, to respect and to ensure the Covenant rights to all persons who may be within their territory and to all persons subject to their jurisdiction. This means that a State party must respect and ensure the rights laid down in the Covenant to anyone within the power and effective control of that State party, even if not situated within the territory of the State party' ***[94]****.*

The decisions and statements of the quasi-judicial Human Rights Committee are illustrative and useful. In particular, in *Lopez Burgos* 'it would appear that an exercise of jurisdiction for the purpose of applying the ICCPR [did] not require as a pre-condition territorial control'[95]. It would appear from this brief outline of the area that the ICCPR offers more scope as a treaty regime for extra-territorial application than does the European Convention, for instance. Much more practice would be required, however, in the specific and unique area of climate change before the rights contained in the Covenant could accurately be said to apply extra-territorially in cases where human rights violations have occurred as a result of climate change.

Advances have also been made in the area by the ICJ. In*Democratic Republic of Congo (DRC) v Uganda* the Court 'made it clear that human rights treaties might apply to a state's conduct even where that state's level of control falls short of that of an occupying Power'[96]. It was also made clear by the Court that occupation is just one example of a situation in which human rights treaties apply extra-territorially[97].

What the preceding discussion has outlined are the negative obligations of States. The question of whether human rights treaties apply extra-territorially in terms of positive obligations is another area entirely. John Cerone regards it as peculiar that 'a great controversy has erupted in recent years as to whether the norms of human rights law may be applied to a state's extraterritorial conduct'[98]. His primary reason for this assertion is that 'prior to the development of human rights law, international law was concerned almost exclusively with states' external conduct'[99]. Indeed, he argues that it was the 'great innovation of human rights law' that it regulated the ways in which a state could treat its own people[100]. Cerone points out that the many questions requiring answers in this field (extra-territorial application; whether conduct is attributable to a state; whether the victim of a human rights violation was within the jurisdiction of the state; and whether a state's responsibility is engaged) are analytically distinct and ought to be treated as such[101].

Both the European Court and the Inter-American Court have explored the extent to which their respective treaties can be applied to extra-territorial conduct. The latter requires evidence of 'control over the individuals whose rights have been violated'[102]. The former has found that the European Convention applies 'where a Contracting State exercises effective overall control of territory beyond its borders, as well as in certain other limited circumstances where agents of the state carry out a governmental function on the territory of another state'[103]. In the *Ilascu* case the European Court stated:

'in exceptional circumstances the acts of Contracting States performed outside their territory or which produce effects there may amount to exercise by them of their jurisdiction within the

*meaning of Article 1 of the Convention'**[104]**.*

Here the Court appears to lessen the standard used in *Bankovic* 'to the simple question of whether alleged infringements were attributable to the Russian Federation'[105]. It therefore appears that the standard of territorial control is now all but lost, but that other requirements remain problematic.

The American Declaration does not impose any jurisdictional limits on its application and, as the United States is bound not by the American Convention but by the American Declaration, this has potentially important consequences for the victims of violations of the right to life occurring in this manner in the Americas. In the case of *Alejandre v Cuba* the Inter-American Commission was concerned with a case in which the Cuban air force had shot down two unarmed civilian aircraft in international airspace and over international waters. No warning was given and they fired without prior provocation. As Cuba was not a party to the American Convention, the Commission applied the provisions of the American Declaration as constituting 'a source of international obligations'[106]. With specific regard to extra-territorial application the Commission noted that:

*'in certain circumstances the Commission has competent authority to consider communications which complain of a violation of human rights protected under the Inter-America system by agents of a Member State of the Organisation even though the facts which constitute such violation may have taken place outside the territory of the said State'**[107]**.*

Going further than the European Court the Commission also stated that 'exercising competent authority over facts which have occurred in an extra-territorial location not only is consonant with but is required by the relevant provisions'[108]. The Commission employs an 'authority and control' standard to the exercise of its jurisdiction. Expanding on this issue in the present case it was stated that:

*'the circumstance that the facts occurred outside the Cuban jurisdiction does not restrict nor limit the Commission's competent authority ratione loci, for, as has already been indicated, when agents of a State, whether they be military or civil, exercise power and authority over persons located outside the national territory, its obligation to respect human rights, in this case the rights recognized in the American Declaration, continues'**[109]**.*

The Commission held that Cuba was in violation of the right to life and was under an obligation to investigate the facts of the case, prosecute those responsible, and pay adequate reparation to the victims' families[110]. In another case, that of *Saldano v Argentina*, the Commission held that 'a state party to the American Convention "may be responsible under certain circumstances for the acts and omissions of its agents which produce effects or are undertaken outside that state's own territory"'[111].

The issue of extra-territorial application of human rights treaties represents one of the most problematic hurdles for any future litigation of the climate change damage issue in the field. As

has been discussed, the different treaty regimes have developed their own thresholds of authority and control, or similar, beyond which the treaty may be applied extra-territorially. However, in each system evidence of moves towards lower thresholds is needed in the context of climate change if states are to be held directly accountable for human rights violations occurring in this manner.

Part Two: The Law on State Responsibility

Many commentators and authors have identified as a key problem in this area the lack of precedent when considering the role of international law in the realm of global climate change[112]. Principles of international environmental law that appear to suit the area, such as the principle of cumulative causation, are as yet in a period of emergence and crystallisation, and much more state practice would need to be in evidence before such principles could be said to be of broad application[113]. Leaving aside for the moment the human rights implications of global climate change, it is illustrative to consider the law of state responsibility as it applies to climate change damage more generally as it provides a useful framework within which to consider the difficulties which may arise when tackling human rights and climate change together in a judicial context.

This section will look at the law on state responsibility, focusing on its origins and development before moving on to look in more detail at its applicability to climate change damage, and the problems inherent in the attribution of responsibility for this type of damage. To illustrate the law in this broad area this paper will use some examples from the more general area of international environmental law. Emergent precedent in such matters as the establishment of state responsibility for damage to the global atmosphere, or for polluting activities which have consequences across state borders, may contribute to our understanding of the issues under discussion in this paper.

Origins and Development

The origins and roots of today's understanding of state responsibility stem in part from the 1925 *Spanish Zone of Morocco* case, decided at the Permanent Court of International Justice. In this case the Permanent Court recognised a now generally accepted principle of international law that 'responsibility is the necessary corollary of a right, and that all rights of an international character involve international responsibility'[114]. The *Chorzow Factory* case firmly established this rule 'as generally applicable for all kinds of breaches of international law'[115] by stating that 'reparation is the indispensable complement of a failure to apply a convention and there is no necessity for this to be stated in the convention itself'[116]. This has been further recognised in more recent years by the International Court of Justice in the *Gabcikovo-Nagymaros Project* case in which it was stated that it is 'well established that, when a State has committed an internationally wrongful act, its international responsibility is likely to be involved whatever the nature of the obligation it has failed to respect'[117].

These pronouncements have contributed to the present position, codified in the 2001 Articles on State Responsibility, that 'the responsibility of states is a rule of customary law and one of the fundamental principles of modern international law'[118]. However, due in large part to the nature of the sovereign state system, there have been precious few international adjudications in which the fledgling law on state responsibility was tested. Of these, the *Trail Smelter* arbitration of 1941[119] and the *Corfu Channel* case[120] at the International Court of Justice are the most famous for the precedents they created. In *Trail Smelter* the Tribunal applied the principle that in international law:

*'no state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence'**[121]**.*

It is accepted generally by commentators that 'territorial sovereignty confers a licence on a state to exploit and enjoy the resources within its territorial confines'[122]. However, this is predicated on the requirement that the 'source states … respect equally the sovereignty of others and refrain from conduct that may be injurious to other states in a manner that is contrary to the rules of international law'[123]. In the *Corfu Channel* case, the ICJ 'held that it was a sufficient basis for Albanian responsibility that it knew, or must have known, of the presence of the mines in its territorial waters and did nothing to warn thirds States of their presence'[124].

This rule has since been reaffirmed in a number of Declarations and also in treaty law. The UN Conference on the Human Environment, commonly known as the Stockholm Conference, took place in 1972. In addition to its contribution regarding our understanding of the international community's views on when and for what reasons the responsibility of states in the environmental field is engaged it also tied human rights issues with environmental concerns by declaring: 'Man has the fundamental right to freedom, equality and adequate conditions of life in an environment of a quality that permits a life of dignity and well-being'[125]. The Rio Conference which followed twenty years later failed 'to give greater explicit emphasis to human rights', which commentators believe is 'indicative of continuing uncertainty and debate about the proper place of human rights law in the development of international environmental law', and which was also a huge disappointment to campaigners[126]. However, in terms of state responsibility, Principle 2 of the 1972 Stockholm Declaration, Principle 21 of the 1992 Rio Declaration as well as Article 3 of the Convention on Biological Diversity all proclaim in very similar statements, that principle which was first recognised in the *Trail Smelter* case:

*'States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction'**[127]**.*

This principle is commonly known as the 'no-harm rule' and is recognized as a rule of customary international law[128]. Under the no-harm rule 'a State is obliged to ensure that acts*under its*

control and jurisdiction do not harm another State' or states[129]. The rule has been re-stated in similar form more recently, in the *Nuclear Weapons* advisory opinion delivered by the Court in 1997: 'the existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national control is now part of the corpus of international law relating to the environment'[130].

This rule would be relatively straightforward to apply in cases analogous to *Trail Smelter*, where the nexus between cause and effect is either obvious or is easily discernable using scientific evidence. However, as regards climate change, no such easily recognizable, traceable connection between polluter and polluted is available. Conversely, according to Verheyan, 'the fact that the emissions from the territories of all States contribute to the increased concentrations of greenhouse gases in the atmosphere and that one State might not be able to effectively reduce all of these emissions or actually prevent all damage cannot lead to a finding that the no-harm rule is inapplicable *per se*'[131]. This remains a deeply problematic issue and one which will require the concerted efforts of both governments and courts to address and rectify. Whereas the*Trail Smelter* case 'had dealt only with transboundary harm to other states, many of these later conventions [those that followed and were influenced by the Stockholm and Rio Declarations] point to international acceptance of the proposition that states are now required to protect global common areas'[132]. Additionally, Principle 21 'requires states to do more than make reparation for environmental damage'[133]. Notably, 'it recognizes the duty of states to take suitable preventive measures to protect the environment'[134].

An aspect of the UNFCCC which is important to consider in this context is Article 3(1), which reads:

'In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

*1. The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof'**[135]**.*

This principle of common but differentiated responsibility is an emerging one on the international legal plain and is of relevance here because, as shown by the Inuit Circumpolar Conference in their petition, groups tend to attach responsibility to the most prevalent emitters[136]. Were significant progress to be made in the jurisprudence by targeting such emitters then the incorporation of this principle into 'forum-shopping' considerations would seem to be advantageous. In their submissions to the Inter-American Commission the ICC suggested that the body use the principle as a means of interpreting the situation of state responsibility for climate change damage.

The International Law Commission's Articles on State Responsibility were adopted on 9th August 2001 and have been described as: 'a good reflection of the status of international law on the

various elements and preconditions for State responsibility'[137]. The ILC's project on state responsibility took forty-nine years and thirty-two major reports[138] to progress from its initial selection as a topic for consideration in 1948, following a review of the field of international law by Hersch Lauterpacht to determine those issues most key to fulfilling the General Assembly's Charter mandate of 'encouraging the progressive development of international law and its codification', to final adoption in 2001[139].

Establishing State Responsibility

These varying, moderately disparate rules on state responsibility were brought together and considered as one body of law by the ILC between 1948 and 2001. In part one of the Articles the 'general conditions necessary for state responsibility to arise' are set out and explained[140]. As provided in Article 1, 'every internationally wrongful act of a State entails the international responsibility of that state'[141]. This basic principle underlies all the following articles and its operation depends on 'the requirements of the obligation which is said to have been breached'[142]. The Articles then proceed to detail the elements of an internationally wrongful act of a state in article 2. Article 2 expands on the basic rule and states that an internationally wrongful act only exists where two elements are present: 'conduct consisting of an act or omission … attributable to the State under international law', where this conduct 'constitutes a breach of an international obligation of that State'[143]. The conditions laid down in this article are key to understanding the difficulties which groups face in establishing state responsibility for climate change damage in general, and in particular the difficulties faced by those endeavouring to do so on behalf of the victims of human rights violations, who face additional barriers to their progress.

In terms of the first condition, a number of points can be raised. Firstly, the obligation must have been in force for the state at the relevant time. Secondly, 'whether there has been a breach of a rule may depend on the intention or knowledge of relevant State organs or agents', which is itself dependent on the precise terms of the relevant applicable rule[144]. The commentary makes it clear that there is no substantive difference in relation to responsibility between a state action and a state omission. In terms of the second of the two conditions given in article 2, it is clear that 'the conduct attributable to the State should constitute a breach of an international obligation of that State'[145]. Crucially the precise meaning of this article in any given situation depends heavily on the content of the primary obligation[146]. The primary obligation of interest here is the right to life, protected under a number of international instruments as outlined previously.

The internationally accepted rules on state responsibility brought together and codified by the ILC rely heavily on a strong nexus between the act or omission of a state and the breach of the international rule in question. This is unsurprising, given that it is difficult to imagine a situation in which any entity, state or otherwise, would accept mechanisms whereby their responsibility could be engaged in the absence of sufficient evidentiary proof of culpability. In this area the lack of such an easily identifiable and scientifically certain nexus forms the primary difficulty in attributing state responsibility for climate change damage. However, there may be a legal framework in

general international law that would provide for the establishment of state responsibility for global climate change damage in the future, following additional state practice. Under the Articles it is first necessary to establish that there is an obligation acting on states with respect to the right to life and climate change damage. Secondly, it must be established that there has been a breach of this obligation and, thirdly, that such a breach is attributable to a state or states[147].

The establishment of state responsibility can be usefully broken down into three steps, drawn from Article 2 of the ILC Articles, but related specifically to the subject matter of this paper:

– The existence of an obligation acting on states to protect the right to life in relation to climate change damage.

– The existence of a breach of this obligation.

– Proof that the breach is in some way attributable to a state or states.

It is increasingly apparent that states bear responsibility for violations of the right to life that have originated in environmental degradation, or as a result of transboundary air pollution. With regard to climate change damage the problems of attribution and causation loom large in attempts to establish state responsibility. It is also important to draw attention to the due diligence issue and the time frame within which a state can be held responsible for a breach of an international obligation. These issues will be discussed in more detail in Part Three.

Part Three – Difficulties in Establishing State Responsibility in the Context of the Right to Life and Climate Change

This section of the paper will look in more detail at those issues identified above which represent the major difficulties facing individuals trying to hold states accountable for violations of the right to life occurring as a result of climate change damage. In the interests of clarity it is important to emphasise that the primary obligation under consideration here is the right to life and not violations of the principle mechanisms regulating climate change in international environmental law.

Breach of Obligation

Article 12 concerns the existence of a breach of an international obligation. The article reads: ‘there is a breach of an international obligation by a State when an act of that State is not in conformity with what is required of it by that obligation, regardless of its origin or character’[148]. The commentary states that ‘in the final analysis, whether and when there has been a breach of an obligation depends on the precise terms of the obligation, its interpretation and application, taking into account its object and purpose and the facts of the case’[149]. Although the determination of the existence of a breach of obligation is not dependent on the law on state responsibility but is instead predicated on the precise meaning of the primary rule, the difficulty is

that there is at present insufficient evidence of an understanding of the scope and content of the right to life which specifically includes violations occurring as a result of the adverse effects of climate change. This would represent the first major difficulty to be encountered by individual victims. The outcome of the Inuit petition will be especially interesting as the Inter-American Commission has developed a reputation for innovative, ground-breaking judgments which advance our understanding of the scope that the law can have.

Causation

The second major difficulty in establishing state responsibility is the issue of causation: the relationship between cause and effect in relation to a particular event. Establishing causation 'means establishing a causal relationship between a certain legally relevant behaviour and a loss of injury'[150]. This is an issue which did not receive much attention in the context of the climate change issue until recently. Most authors distinguish between general and specific causation, drawing on a distinction which is already made in domestic tort law and in international law[151]. General causation refers to 'a causal link between an activity and the general outcome'; in this context the 'general proof' that unchecked or inadequately regulated greenhouse gas emissions have caused violations of the right to life as a result of the impact that such emissions have had and are continuing to have on global temperatures and other indicators[152]. Specific causation refers to 'a specific activity [that] has caused a specific damage'[153]. Applicants usually try to attribute specific causation 'in order to put a "figure to a claim" and to link this to a particular actor'[154]. Analysis of the latter category is beyond the scope of this paper as the issues of redress and reparations is another subject area entirely, befitting of a great deal more depth of analysis than can be achieved here.

In terms of general causation then, as was portrayed in part one, the scientific consensus that global climate change has a primarily anthropogenic cause, only excepting natural climate variations, is now so universal that it can be taken as fact. Additionally, there is already evidence that such changes 'will lead to impacts on ecosystems and human life', as set out by the IPCC in their February 2007 report[155]. The extent to which states have contributed to the problem is also discernible from the scientific data though, as discussed, science cannot help us reach the requisite level of certainty regarding attribution of a particular instance of damage and the emissions of a particular state. While it is true that 'damage or injury is not a precondition for the existence of a wrongful act and thus it is possible to require cessation without showing any causal link aside from the mere breach of an international obligation by a state'[156], in this context it is the very existence of a breach of the right to life that is at issue. The jurisprudence on the subject of human rights and the environment has tended to require a certain threshold of harm, and of course, clear attribution of the harmful act(s) to the state. It is doubtful that such standards would be met in many cases concerned with climate change and human rights at the present time. This is not to suggest, however, that with a broad understanding of the right to life and perhaps a slight lowering of standards for causation and attribution, that judicial decisions in favour of the applicant will not be made in the future.

From the perspective of the ILC the meaning of causation is drawn from the jurisprudence of

international courts and tribunals and can be seen as analogous to the meaning of such phrases as 'losses attributable as a proximate cause' or 'any direct loss, damage, including environmental damage and the depletion of natural resources, or injury to foreign governments, nationals and corporations as a result of the wrongful act'[157]. More specifically the ILC decided that 'attributes such as "directness" or "foreseeability" or "proximity" must qualify the relationship between the wrongful act and the injury'[158]. It is doubtful whether, considering the lack of clear scientific evidence, the threshold set by such qualifications would be met in the present context. However, one author considers the approach of certain domestic systems in an analysis of causation and climate change. The German High Court has 'argued that because the contributions by multiple emitters cannot be separated, it is practically impossible to establish a causal relationship between particular emissions contributions and damage to trees and soil, and thus to attribute damage to a particular emitter'[159]. In this case the claim was rejected, not on the grounds of causation but on grounds of 'inability to establish fault on the part of the public authorities'[160]. Okowa has considered the possibility of determining 'the relative causal contribution of states to damage caused' and states that 'air pollution … is caused by multiple factors, thus, of the scientific and evidentiary problems associated with apportioning responsibility, only some are due to causal behaviour'[161]. A good example of judicial use of this reasoning is the *Trail Smelter* arbitration, in which 'multiple causes did not deter the tribunal in its award of damages'[162]. Climate change clearly has multiple causes from a plethora of source states, and so such reasoning can be instructive, though the issue remains problematic. Strictly in terms of responsibility for climate change damage itself, although:

*'it is impossible to attribute specific emissions of a specific country to specific impacts (or damages), there is a causal link between each ton of greenhouse gas emitted and the change in radiative forcing. Thus, even though the shares of contributions differ and only lead to the resulting changes in accumulation, they are equally causal in a legal sense'**[163]**.*

This touches on the concept of cumulative causation which is an interesting one to consider in this context. Cumulative causation has been defined as instances 'where several actors contribute to an injury or event, but no one behaviour is sufficient to bring about the injury'[164]. The result is that all of the actors that have contributed are 'jointly liable' for any damage caused[165].

A related concept is that of establishing causation on the basis of contribution. This approach leaves 'the issue of how much of the damage might have been caused by this contribution to the stage of apportioning damages'[166]. Again Verheyan draws on US and German domestic legal approaches. In the latter the underlying principle is expressed like this: 'if it is impossible to determine which activity in which one of the parties involved has caused the damage, each of them shall be responsible for the damage caused'[167]. The rationale for this is clearly sensible, and relevant to the climate change issue: given the difficulty in determining the degree to which each contributor contributed to the problem, 'the victim should not bear the burden of proving whose share caused which damage'[168]. The US approach is predicated on how 'substantial' the contribution has been[169]. In this instance the term 'substantial' is taken to mean that 'the fact that the defendant's conduct "has such an effect in producing the harm as to lead

responsible men to regard it as a cause"'[170]. This is a concept that has found favour in the past with the International Law Commission. The organisation has accepted 'that an unlawful act might not be the exclusive cause of an outcome, and assumed that establishing causation would be possible if the state in question played not the exclusive, but a "decisive" role in causing the injury'[171]. That this important international body holds such a view is perhaps indicative of some limited movement by such institutions towards more effective, more applicable and useful rules in the area of climate change.

Attribution

Another major difficulty has to do with the attribution of responsibility for the wrongful act. As stated by Xue, 'the purpose of attribution is to establish the link between the wrongful act and its responsible author'[172]. The ILC has described the issue is these terms:

*'In theory, there is nothing to prevent international law from attaching to the state the conduct of human beings or collectivities whose link with the state might even have no relation to its organisation; for example, any actions or omissions taking place in its territory could be considered acts of the state. In practice, however, we find that what is, as a general rule, attributed to the state at the international level are the acts of members of its "organisation," in other words, the acts of its "organs" or "agents." This is the basic principle'**[173]**.*

Tol and Verheyan describe the point in these terms: 'to hold states responsible for climate change damages, it is either necessary to identify a legally relevant behaviour by a state or to attribute the actions of private persons to the state'[174]. Firstly, in terms of the state, it must have either allowed or failed to regulate emissions of greenhouse gases that were over and above a particular threshold[175]. It also needs to be noted that, at least for polluting activities, international law stipulates that polluting acts must be 'of serious consequence' before state responsibility is engaged[176]. In other words, a certain threshold of harm must be reached before state responsibility is engaged. It is also stipulated that 'the injury must be established by clear and convincing evidence', which put together amounts to a high threshold for the establishment of state responsibility. Louka suggests that policy makers ought to consider two issues with a view to clarifying the position:

'1. The polluting activities must be "of serious consequence". Because some form of pollution is part of everyday life, the amount and nature of pollution that is significant for the establishment of a strict liability claim under international law must be clearly established, and;

*2. There must be clear and convincing evidence of harm. This is a difficult requirement to meet, as the Trail Smelter case itself demonstrates. Most of the damage to environment is hard to establish, as the scientific evidence is often inconclusive'**[177]**.*

Once again the Rio Declaration is useful in this regard. It is careful not to differentiate between state and private conduct in the wording of Principle 2, which is the principle that brings the no-harm rule into the Declaration[178]. However, it is practically impossible for a state to 'assume

"full accountability for the actions of their citizens who, in the exercise of their human rights, are not subject to governmental control"'[179]. Further, on this point the ILC has stated that the 'behaviour of private persons, for example private industry and energy utilities emitting greenhouse gases, cannot be regarded as conduct of a state'[180]. Tol and Verheyan are of the opinion that Article 8 of the Articles on State Responsibility could be read to 'imply that, as soon as an activity is permitted or licensed by a state ("under the control of…"), the resulting behaviour is attributable to the state'[181]. However, this seems unlikely to be upheld in a court when one considers the current position of the ILC and other bodies on this matter.

In terms of the right to life, in *Bordes and Temeharo v France*, a case connected with the risk of harm from nuclear radiation arising from French nuclear tests in the South Pacific, and in which the applicants claimed violations of the right to life, the Committee was 'concerned with the remoteness of the harm'[182]. In its decision the Committee noted that the applicant's contention that 'the French authorities had been unable to show that the tests would not endanger' the people of the South Pacific was 'highly controversial even in concerned scientific circles' and that it was therefore 'not possible for the Committee to ascertain its validity or correctness'[183]. This decision made it clear that 'lack of scientific certainty coupled with the burden of proof on the applicants [limits] claimant's ability to obtain relief through human rights proceedings'[184]. The emphasis placed by the Committee on the sorts of evidence and proof required in this case perhaps gives some indication of the likely response of the same Committee to applications concerning climate change damage.

The separate but related issues of a plurality of responsible states and a plurality of injured states is covered by Articles 46 and 47 of the ILC Articles. The *Nuclear Tests* cases are a good example of resort to the ICJ by what the International Law Commission calls a 'plurality of injured states', covered in Article 46, as both Australia and New Zealand claimed to be injured by the nuclear tests carried out by France at the Muraroa Atoll[185]. This Article reads:

*'Where several States are injured by the same internationally wrongful act, each injured State may separately invoke the responsibility of the State which has committed the internationally wrongful act'**[186]**.*

Article 47 covers the issue of a plurality of responsible states, a concept which is very important in the context of this paper. Essentially, this Article 'states the general principle that in such cases each State is separately responsible for the conduct attributable to it, and that responsibility is not diminished or reduced by the fact that one or more other States are also responsible for the same act'[187]. It is important to note that, in the context of human rights violations which have occurred as a result of climate change, it is theoretically possible for all states that are responsible for emissions that have contributed to climate change damage to be held to account, although it would clearly be prudent to be strategic about which states were singled out, perhaps on the basis of which states had failed to honour their Kyoto, or similar, obligations.

The commentary which accompanies the Articles on State Responsibility cites the Convention on the International Liability for Damage caused by Space Objects (1972) and quote Article IV(2)

which provides in part: 'if the extent of the fault of each of these States cannot be established, the burden of compensation shall be apportioned equally between them'[188]. Although this is a*lex specialis* it nevertheless 'indicates what a regime of joint and several liability might amount to so far as an injured state is concerned'[189]. This seems to be an opposite method to that suggested by the international environmental law principle of common but differentiated responsibility, discussed below.

Due Diligence

The vast majority of greenhouse gas emissions which contribute to the climate change problem are produced by ordinary citizens carrying out of lawful actions, such as through air travel or vehicle use. It is therefore necessary to employ some form of due diligence argument in order to link the state's responsibility with these and other activities that are actually lawful. Tol and Verheyan identify two ways of exploring the due diligence issue: firstly, 'a state has to violate a duty of care or a rule of international law to trigger responsibility' and secondly, 'the causal link between damage and activity attributable to the state is enough to trigger responsibility and compensation duties'[190]. The first way is also found in the ILC Articles, in Article 1, which includes a due diligence test within its terms, as stated in the commentary. Therefore, 'state responsibility can only occur if the respective state has not acted with the appropriate care'[191].

However, outside the scope of the Articles, the issue of strict liability for climate change damage has been discussed in the literature. According strict liability would mean determining 'whether states should be liable for any damage caused by certain activities under their control regardless of negligence or fault'[192]. In the absence of negligence or fault on the part of the state however, the ability of individual victims to access redress would probably be severely compromised. Strict liability can still be of use however, for instance with regard to lawful activities which in any event entail a great risk for the environment[193]. In the Inter-American system, 'although actions may not be brought against corporations, who are often the perpetrators of environmental harm, actions may be brought against states for failure to take necessary preventive measures to assure respect for human rights'[194].

Time Frame

Article 13 of the Articles on State Responsibility 'codifies the prohibition of any retrospective assumption of responsibility'[195]. In short the Article 'indicates [that] the relevant period of time for determining whether an obligation exists is not when the *damage* occurs but when the climate-changing *activity* occurs'[196]. In this context there is clearly a certain time-lag between the emissions taking place and the harmful effect which may amount to a wrongful act occurring. It is therefore necessary to consider the implications of this time frame difficulty. Any court considering this matter is likely to have to determine 'when the breach begins and when it ends'[197], another area of scientific complexity.

Conclusions

The problematic, complex issues of causation, attribution and due diligence, among the others discussed above, present significant obstacles to individual victims of violations of the right to life occurring as a result of climate change. Notwithstanding these difficulties states ought to adopt certain principles in this area regardless of any proof of direct culpability. A widely accepted declaration of the precautionary principle can be found in the 1992 Rio Declaration:

*'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'**[198]**.*

This principle 'seeks to anticipate and avoid environmental damage particularly when human rights are involved'[199]. It is important that continuing debate about the precise causes and consequences of climate change not result in a failure to act to stem the already serious threats to human life and to the global ecosystem at large that are either in incontrovertible evidence, or which are highly likely to occur.

Conclusion

In conclusion it is submitted that the current state of international human rights law is ill-equipped for dealing with the human costs of climate change damage. As the ACIA has stated, 'there is an international scientific consensus that most of the warming observed over the last 30 years is attributable to human activities'[200]. Indeed, 'the strength of the trends and the patterns of change that have emerged in recent decades indicate that human influences, resulting primarily from increased emissions of carbon dioxide and other greenhouse gases, have now become the dominant factor' in global climate change[201]. Despite the evident anthropogenic cause however the current internationally accepted rules on state responsibility place barrier after barrier in the way of individual victims trying to apportion accountability and access redress.

The seemingly intractable difficulty of causation is particularly problematic. Without this scientific evidence which would link a particular source state with a particular consequence of pollution it is doubtful whether the requisite standards of proof would be reached in some systems. It is the Inter-American system that appears to offer the most likely avenue, placing the burden of proof as it does on the state.

It was beyond the scope of this paper to consider alternatives to the present system. In any case, any change in international law takes a great deal of time to institute itself and so it seems prudent to work for the moment with the mechanisms already in place. Significant changes need to be instituted, but as with all developments in international law, this will likely take a protracted period of time. It may be that as the problem becomes markedly worse, for instance when Bangladesh begins to loose significant portions of its territory, that the international political and the international legal communities will come to place greater emphasis on the needs and rights of the individual victims.

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02/09/07.

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[1] In a recent Ipsos Mori poll, reported by BBC News in early July 2007, it was found that 56% of those interviewed 'believed scientists were still questioning climate change' and that 'terrorism, graffiti, crime and dog mess were all of more concern than climate change', see: *'Scepticism over climate claims'* viewed at http://news.bbc.co.uk/go/pr/fr/-/1/hi/sci/tech/6263690.stm on 03/07/2007. For the purposes of this paper the terms climate change, global warming and global climate change will be used interchangeably to denote the phenomenon whereby the naturally occurring greenhouse gases in the Earth's atmosphere, which 'are transparent to incoming shortwave solar radiation but absorb and trap longwave radiation emitted by the earth's surface', are subject to increasing levels due to human activities (see Sands, Philippe *Principles of International Environmental Law 2nd Edition* (Cambridge: CUP, 2003), pp.357-8). It is important to note however, that the Intergovernmental Panel on Climate Change, whose published reports will be discussed below, adopts the following definition: 'any change in climate over time, whether due to natural variability or as a result of human activity' (see IPCC Summary for Policymakers, viewed at http://www.ipcc.ch/pub/spm22-01.pdf on 04-07-07, p.2). The author has chosen to use a definition that excludes natural climate variability because the focus of this paper is on the difficulties associated with establishing state responsibility for climate change, and under no understanding of state responsibility can states be held accountable for such natural variability.

[2] The Intergovernmental Panel on Climate Change (IPCC), established jointly by the United Nations Environment Programme (UNEP) and the World Meteorological Organisation (WMO) to offer insight into the climate change debate (see Louka, Eli *International Environmental Law: Fairness, Effectiveness, and World Order* (Cambridge: CUP, 2006), p.20) stated in its Fourth Assessment Report of February 2007 that 'most of the observed increase in globally averaged temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic greenhouse gas concentrations' (see IPCC Summary for Policymakers, p.10. Original emphasis). The state of the scientific debate is such that, for the purposes of this paper, it will be taken as fact that anthropogenic greenhouse gases (GHG) produced by the burning of fossil fuel emissions has contributed to present global climate change. In 2007 alone there have been cyclones in Pakistan, mass crop failures in the southern United States, droughts in the vast agricultural lands of south-eastern Australia, glacial retreat throughout the Himalayas, and increased flooding in Bangladesh. See: Usborne, David *Wild Weather: dispatches from an ailing planet* 02/07/07 at http://environment.independent.co.uk/article2727874.ece viewed on 16/07/07;

Gumbel, Andrew *The wrath of 2007: America's great drought* 11/06/07 at http://news.independent.co.uk/world/americas/article2643033.ece viewed on 16/07/07; Marks, Kathy *Australia's epic drought: the situation is grim* 20/04/07 at http://news.independent.co.uk/world/australasia/article2465960 viewed on 16/07/07; McFerran, Ann *Bangladesh: a nation in fear of drowning* 18/04/07 at http://environment.independent.co.uk/climate_change/article2458848.ece viewed on 16/07/07; Sengupta, Somini *Glaciers in retreat* 17/07/07 at http://www.nytimes.com/2007/07/17/science/earth/17glacier.html viewed on 17/07/07.

[3] Middaugh, Marguerite E. *Linking Global Warming to Inuit Human Rights* 8 San Diego Int'l L.J. 179 para.190.

[4] The Petition to the Inter-American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States can be read in full at: http://www.inuitcircumpolar.com/files/uploads/icc-files/FINALPetitionICC.pdf. Among the rights included in the Inuit petition are the right to the benefits of culture (Art.14 Protocol of San Salvador), the right to use and enjoy their personal property (Art.21 IACHR), the right to health (Art.10 Protocol of San Salvador), and the right to life (Art.4 IACHR). For further details of the case see: http://www.inuitcircumpolar.com/ and http://www.ciel.org/Climate/Climate_Inuit.html.

[5] See UN Docs. E/CN.4/Sub.2/AC.4/2004/CRP.1 pp.2-3; E/CN.4/Sub.2/2005/28 pp.2-3. Another example is Bangladesh, which stands to loose a significant portion of its territory as a result of sea level rise.

[6] Okamatsu, Akiko *Problems and Prospects of International Legal Disputes on Climate Change* at http://web.fu-berlin.de/ffu/akumwelt/bc2005/papers/okamatsu_bc2005.pdf viewed on 02/08/07.

[7] Xue Hanquin *Transboundary Damage in International Law* (Cambridge: CUP, 2003), p.73.

[8] Crawford, James *The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries* (Cambridge: CUP, 2005) p.77. The commentary cites the 1938 PCIJ *Phosphates in Morocco* case in which the Court 'affirmed that when a State commits an internationally wrongful act against another State international responsibility is established "immediately as between the two States",' and the 1950 ICJ decision in *Interpretation of Peace Treaties* which stated that "refusal to fulfil a treaty obligation involves international responsibility".

[9] Okowa, Phoebe N. *State Responsibility for Transboundary Air Pollution in International Law* (Oxford: OUP Oxford Monographs, 2004) p.63. This is a point also emphasised by Kiss, Alexandre and Shelton, Dinah *Manual of European Environmental Law* (Cambridge: Grotius, 1993), p.6-7 and Birnie, Patricia W. and Boyle, Alan E. *International Law and the Environment* (Oxford: Clarendon Press, 2002), p.83.

[10] Okowa, p.63.

[11] Middaugh, para.191. It is particularly important in this context that the United States sign up to the Kyoto Protocol mechanism as 'without US participation further, more aggressive measures are out of reach'.

[12] Henson, Robert *The Rough Guide to Climate Change* (London: Rough Guides, 2006), p.5.

[13] IPCC Summary for Policymakers, p.2.

[14] IPCC Summary for Policymakers, p.5.

[15] IPCC Summary for Policymakers, p.8.

[16] Henson, p.31. In the absence of this causal link the rule contained in the law on state responsibility which stipulates that, in order for an internationally wrongful act to arise, an act or omission of a state must be attributable to that state, remains unfulfilled. Causation will be discussed in greater detail below.

[17] Henson, p.31.

[18] On problems associated with international legal disputes on climate change, see: Okamatsu, Akiko *Problems and Prospects of International Legal Disputes on Climate Change* at http://web.fu-berlin.de/ffu/akumwelt/bc2005/papers/okamatsu_bc2005.pdf viewed on 02/08/07; Okowa, pp.1-12; 24; 63-93; 171-197; Xue pp.73-113; Verheyan, Roda *Climate Change Damage and International Law: Prevention Duties and State Responsibility* (Leiden: Martinus Nijhoff, 2005), 225-333.

[19] Sands, p.3.

[20] For more information about the ICC see http://inuitcircumpolar.com/index.php?ID=1&Lang=En viewed on 17/08/07.

[21] Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, available at: http://inuitcircumpolar.com/files/uploads/icc-files/FINALPetitionICC.pdf on 04-07-07. p.1. See also *Inuit Petition Inter-American Commission on Human Rights to Oppose Climate Change Caused by the United States of America* 7-12-05, viewed at: http://www.inuitcircumpolar.com/index.php?Lang=En&ID=316 on 03-07-07 and Wagner, Martin and Goldberg, Donald M. *An Inuit Petition to the Inter-American Commission on Human Rights for Dangerous Impacts of Climate Change* Earthjustice/CIEL viewed at: http://www.ciel.org/Climate/Climate_Inuit.html. on 12-07-07.

[22] *Impacts of a Warming Arctic – Arctic Climate Impact Assessment* (Cambridge, CUP: 2005), p.5. The ACIA is 'a high level intergovernmental forum that provides a mechanism to address the common concerns and challenges faced by arctic people and governments'. Its members states are: Canada, Denmark, Greenland, the Faroe Islands, Finland, Iceland, Norway, Russia, Sweden and the United States. There are six indigenous people's organisations and official observers.

[23] *Inuit Petition,* p.83.

[24] Middaugh, para.185.

[25] Middaugh, para.187.

[26] *Inuit Petition Inter-American Commission on Human Rights to Oppose Climate Change Caused by the United States of America* 7-12-05, viewed at: http://www.inuitcircumpolar.com/index.php?Lang=En&ID=316 on 03-07-07.

[27] Current problems associated with securing ratification of the major treaties, and with the negotiation of new ones, points to the conclusion that any singling out of a one large emitter for what is likely to be expensive redress obligations will end up worsening international relations and further disinclining the state to engage in international efforts aimed at effective mitigation.

[28] The UNFCCC was opened for signature at the UN Conference on Environment and Development (UNCED) in Rio in 1992, popularly known as the Rio Summit. See Warbrick and McGoldrick (eds), p.448. Art.17 of the UNFCCC states that the Parties 'may, at any ordinary session, adopt protocols to the convention'. The Kyoto Protocol, discussed below, is the only such Protocol so far adopted in this manner to the Framework Convention. It entered into force on 21 March 1994, ninety days after the fiftieth instrument of ratification was received, as specified by Art.23. See Sands, p.128.

[29] For discussion of the drafting process and further insight into the difficulties encountered, see Warbrick and McGoldrick, pp.448-450.

[30] Art.2 UNFCCC viewed at http://unfccc.int/resource/docs/convkp/conveng.pdf on 17/08/07.

[31] Figures viewed at: http://unfccc.int/parties_and_observers/parties/items/2352.php and http://maindb.unfccc.int/public/country.pl?group=kyoto respectively on 02/09/07.

[32] Middaugh, para.191.

[33] Harris, D. J. *Cases and Materials on International Law 6th Edition* (London: Thomson Sweet and Maxwell, 2004) p.828.

[34] Harris, p.828.

[35] Harris, p.808.

[36] Cited in Harris, p.808.

[37] Warbrick and McGoldrick, p.460. The Protocol was opened for signature on 11th December 1997 and entered into force on 16th February 2005.

[38] Warbrick and McGoldrick, p.460.

[39] Warbrick and McGoldrick, p.453.

[40] Hovi, Froyn and Bang *Enforcing the Kyoto Protocol: can punitive consequences restore compliance* Review of International Studies 2007 (33) pp.435-449, at p.435.

[41] Hovi, Froyn and Bang, p.436.

[42] Redgwell, Catherine *Non-Compliance Procedures and the Climate Change Convention* viewed at http://www.geic.or.jp/climgov/03.pdf on 28/07/07.

[43] Redgwell, Catherine *Non-Compliance Procedures and the Climate Change Convention* viewed at http://www.geic.or.jp/climgov/03.pdf on 28/07/07.

[44] Among other commentators, see Hector Faundez Ledesma cited by the Inter-American Commission in *Alejandre v Cuba*, No.86/99 September 29th 1999.

[45] CCPR General Comment No.6: the right to life 30/04/82, para.1.

[46] Ramcharan, B.G. *The Right to Life in International Law* (Lancaster: Martinus Nijhoff Publishers, 1985), p.6-7. Ramcharan also draws attention to the close connection between the right to life and a right to a healthy environment, a concept that has been gaining ground for some time. This is, however, beyond the scope of this paper, not being a formally internationally recognised part of the right to life. In particular he argues that a right to a safe environment should stem from the right to life despite the former perhaps coming to develop a content of its own.

[47] Ramcharan, p.8.

[48] CCPR General Comment No.6: the right to life 30/04/82, para.1.

[49] CCPR General Comment No.6: the right to life 30/04/82, para.5. Emphasis added.

[50] Which is of significance because Ramcharan is recognised as a leading commentator on the right to life.

[51] IHRL Documents, p.69.

[52] Shelton, Dinah *Human Rights and the Environment: Jurisprudence of Human Rights Bodies* for the Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment, 14-16 January 2002, Background Paper No.2, para. 1(a).

[53] Shelton, introduction to *Human Rights and the Environment: Jurisprudence of Human Rights Bodies* for the Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment, 14-16 January 2002, Background Paper No.2.

[54] Shelton, para.1(b)(ii).

[55] Cited in Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.90.

[56] Cited in Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.90.

[57] Boyle, Kevin *The right to life under the European Convention (Article 2)*, p.1. Forthcoming publication for *Interights* ECHR training materials for Russian lawyers.

[58] ECHR Art.2(1).

[59] *McCann and Others v UK* Series A no.324, Judgment of 27/09/95 cited in Boyle, p.1.

[60] *X v UK* No.7154//75 1978 cited in Boyle K., p.8.

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[62] Sands, Philippe, *Human Rights, Environment and the Lopez-Ostra Case: Context and Consequences* EHRLR No.6 1996, p.597.

[63] Sands (1996), p.598.

[64] Sands (1996), p.615.

[65] Sands (1996), p.615.

[66] Sands (1996), p.615.

[67] Sands (1996), p.615.

[68] Clapham, A *Human Rights in the Private Sphere* (Oxford: Clarendon Press, 1993), p.178. Such cases include *Marcx v Belgium* Series A, No.31 (1979), para.14 and *Tyrer v UK* Series A No.26 (1978), para.31.

[69] Sands (1996), p.615.

[70] Middaugh, para.194.

[71] Middaugh, para.194.

[72] Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment 14-16 January 2002 Background Paper 6 *Review of Jurisprudence on human rights and the environment in Latin America*. Although the debate over whether there is an emergent right to a healthy environment is beyond the scope of this paper, this case law is illustrative of an increasing willingness by some international courts to talk of the right to life and the environment in the same context, and as being part of the same area of concern.

[73] Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment 14-16 January 2002 Background Paper 6 *Review of Jurisprudence on human rights and the environment in Latin America*.

[74] *Case of Yanomami Indians*, Case 7615 (Brazil), Inter-Am. C.H.R., OEA/Ser.L/V/II.66 doc. 1985, available at http://www.cidh.org/annualrep/84.85eng/Brazil7615.htm cited in Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.89.

[75] *Case of Yanomami Indians*, Case 7615 (Brazil), Inter-Am. C.H.R., OEA/Ser.L/V/II.66 doc. 1985, available at http://www.cidh.org/annualrep/84.85eng/Brazil7615.htm cited in Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.89-90. Emphasis added.

[76] Cited in Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.90. The Commission's involvement with the main subject of the Ecuador report, the Oriente region, lasted for several years following the exploitation of the region for it's oil reserves resulting in contamination of the environment, including the water supply. The Commission emphasised the impact on the right to life that the environmental contamination had and pointed out that States are required to adopt positive measures to safeguard the environment. In regard to economic development the report stated that the American Convention 'requires that it take place under conditions of respect for the rights of affected individuals'. The report concluded that 'environmental degradation can "give rise to an obligation on the part of a state to take reasonable measures to prevent" the risk to life associated with environmental degradation'. See Shelton, *Human Rights and the Environment: Jurisprudence of Human Rights Bodies*, Joint UNEP-OHCHR Expert Seminar on Human Rights and the Environment.

[77] Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.91.

[78] Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.91.

[79] Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.90.

[80] Petition to the Inter American Commission on Human Rights seeking relief from violations resulting from global warming caused by acts and omissions of the United States, p.91.

[81] Coomans, Fons and Kamminga, Menno T. (eds) *Extraterritorial Application of Human Rights Treaties* (Oxford: Intersentia, 2004), p.1.

[82] Coomans and Kamminga, p.1.

[83] For instance, in the field of international humanitarian law, the instruments are 'not dependent on the question [of] whether a person is the victim of territorial or extraterritorial state conduct'. See Coomans and Kamminga, p.2. For example, common Article 1 of the Geneva Conventions (1949) provides that 'the high contracting parties undertake to respect and to ensure respect for the present Convention *in all circumstances*'. See Roberts and Guelff *Documents on the Laws of War 3rd Edition* (Oxford: OUP, 2005), p.197.

[84] The 1948 Genocide Convention does not contain any territorial restrictions. In *Case concerning Application of the Convention on the Prevention and Punishment of Genocide*

(Bosnia-Herzegovina v Yugoslavia) Preliminary Objections 11th July 1996, at para.31, the ICJ stated that 'the obligation of each State has to prevent and to punish the crime of genocide is not territorially limited by the Convention'.

[85] Coomans and Kamminga, p.2-3.

[86] Coomans and Kamminga, p.3-4.

[87] See: Coomans and Kamminga, p.4-5.

[88] See also Cerone, John *Out of bounds? Considering the reach of international human rights law* CHRGJ Working Paper No.5, 2006. p.3. This is a position also adopted by the ICJ. See especially the Israeli Wall Opinion in which the Court 'opined that the ICCPR, the ICESCR, and the CRC applied to Israel's conduct in the Occupied Territories', in Cerone p.5.

[89] *Sergio Euben Lopez Burgos v Uruguay*, Communication No.R.12/52, UN Doc. Supp. No.40 (A/36/40) at 176 (1981), at para.12(1).

[90] *Sergio Euben Lopez Burgos v Uruguay*, Communication No.R.12/52, UN Doc. Supp. No.40 (A/36/40) at 176 (1981), at para.12(2).

[91] *Sergio Euben Lopez Burgos v Uruguay*, Communication No.R.12/52, UN Doc. Supp. No.40 (A/36/40) at 176 (1981), at para.12(3).

[92] *Sergio Euben Lopez Burgos v Uruguay*, Communication No.R.12/52, UN Doc. Supp. No.40 (A/36/40) at 176 (1981), at para.12(3).

[93] *Sergio Euben Lopez Burgos v Uruguay*, Communication No.R.12/52, UN Doc. Supp. No.40 (A/36/40) at 176 (1981), Individual Opinion submitted by a member of the Human Rights Committee under rule 94(3) of the Committee's provisional rules of procedures, Mr. Christian Tomuschat.

[94] General Comment 31, *Nature of the General Legal Obligation Imposed on States Parties to the Covenant* 26/05/04, at para.10.

[95] Cerone, p.5.

[96] Cerone, p.8.

[97] Cerone, p.8.

[98] Cerone, p.2.

[99] Cerone, p.2.

[100] Cerone, p.2.

[101] Cerone, p.3.

[102] See *Coard et al v United States* the Commission found that the phrase "subject to its jurisdiction" 'may , under given circumstances, refer to conduct with an extraterritorial locus where the person concerned is present in the territory of one state, but subject to the control of another state – usually through the acts of the latter's agents abroad'. See Cerone, p.9.

[103] Cerone, p.10. In *Drozd and Janousek v France and Spain* the Court found that responsibility 'can be involved because of acts of their authorities producing effects outside their own territory'. In *Bankovic v Certain NATO Member States* rejected the applicant's claims as being beyond the Court's jurisdiction. The Court further held that 'the European Convention would apply to a state's conduct abroad "when the … State, through the effective control of the relevant territory and its inhabitants abroad as a consequence of military occupation or through the consent, invitation or acquiescence of the Government of that territory, exercises all or some of the public powers normally to be exercised by that Government"'. See *Bankovic*, Eur.Ct.H.R. 52207/99, 41 ILM 517 (2001), at para.71.

[104] *Ilascu and Others v Moldova and Russia*, ECtHR, 8 July 2004, at para.314.

[105] Cerone, p.18. In the more recent case of *Issa v Turkey* the Court approached the reasoning of the Human Rights Committee, stating: 'accountability in such situations stems from the fact that Article 1 of the Convention cannot be interpreted so as to allow a State party to perpetrate violations of the Convention on the territory of another State, which it could not perpetrate on its own territory'. See *Issa v Turkey*, ECtHR, 30 arch 2005 at para. 71.

[106] *Alejandre v Cuba* No.86/99 September 29th 1999, para.18.

[107] *Alejandre v Cuba* No.86/99 September 29th 1999, para.23.

[108] *Alejandre v Cuba* No.86/99 September 29th 1999, para.23.

[109] *Alejandre v Cuba* No.86/99 September 29th 1999, para.25.

[110] *Alejandre v Cuba* No.86/99 September 29th 1999, para.52.

[111] Middaugh, para.197.

[112] See for example Churchill and Freestone, Churchill, Robin and Freestone, David (eds) *International Law and Global Climate Change* (London: Martinus Nijhoff, 1991) p.122-3.

[113] Churchill and Freestone, p.122. This issue will be discussed further below.

[114] Verheyan, Roda *Climate Change Damage and International Law: Prevention Duties and State Responsibility* (Leiden: Martinus Nijhoff, 2005) p.227.

[115] Verheyan, p.228.

[116] Verheyan, p.228.

[117] Cited in Crawford, p.127.

[118] Verheyan, p.228.

[119] On the *Trail Smelter* Arbitration see Okowa pp.10, 67; Sands pp.4, 30. The *Trail* case concerned a Canadian company which was 'emitting sulphur dioxide fumes, which, as the tribunal found, were causing damage to crops and timber in the State of Washington' across the border in America.

[120] As Okowa has observed: 'In the *Corfu Channel* case, the international Court was faced with the issue of Albanian responsibility for the presence of mines in its territorial waters, which posed danger to international navigation. The Court referred to certain general and well-recognized principles in support of the proposition that every state was under a duty not to "allow knowingly its territory to be used for acts contrary to the rights of others"', see Okowa at p.68. This rule is now regarded as being of general application, as evidenced by Birnie and Boyle, p.141; and Brownlie, Ian *System of the Law of Nations: state responsibility, part 1* (Oxford: Clarendon Press, 1983), p.152-5.

[121] *Trail Smelter Arbitration* 35 AJIL 716 (1941) cited in Sands, p.30.

[122] Okowa, p.65.

[123] Okowa, p.65.

[124] Crawford, p.82. The Court also held that there are 'certain general and well-recognized principles, namely: elementary considerations of humanity, even more exacting in peace than in war; the principle of the freedom of maritime communication; and every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States'. For further information concerning the facts of the case see Cassese, Antonio *International Law 2nd Edition* (Oxford: OUP, 2005)

pp. 85, 189 and Harris, pp.405-410.

[125] Boyle, Alan E. and Anderson, Michael R. *Human Rights Approaches to Environmental Protection* (Oxford: Clarendon Press, 1996) p.43.

[126] Boyle and Anderson, p.43.

[127] Birnie and Boyle, p.110.

[128] Verheyan, p.147. For the 'no-harm' rule as custom, see Birnie and Boyle, p.109.

[129] Verheyan, p.177. Original emphasis.

[130] *Legality of the Threat or Use of Nuclear Weapons case* Advisory Opinion (1997) 35 I.L.M. 809 and 1343 cited in Harris, p.959 and also in Middaugh, para.198.

[131] Verheyan, p.178.

[132] Cited in Birnie and Boyle, p.111.

[133] Birnie and Boyle, p.111.

[134] Birnie and Boyle, p.111.

[135] UNFCCC, Art.3(1).

[136] For in-depth analysis of the principle of common but differentiated responsibility see: French, Duncan *Developing States and International Environmental Law: The Importance of Differentiated Responsibilities* 49 ICLQ 1 (2000), pp.35-60.

[137] Verheyan, p.330. In order to establish state responsibility for a wrongful act, (in the context of this paper, a violation of the right to life that has occurred as a result of climate change damage), international law demands that three steps are followed.

[138] Verheyan, p.229.

[139] See http://www.un.org/aboutun/charter/ viewed 24/08/07. See also Crawford, p.1.

[140] Crawford, p.77.

[141] Crawford, 77.

[142] Crawford, p.77. This principle is a long standing one in international law. The Permanent Court of International Justice in the *Phosphates in Morocco* case affirmed that 'when a State commits an internationally wrongful act against another State international responsibility is established "immediately as between the two States". Similarly, in *Interpretation of Peace Treaties* the Court found that 'refusal to fulfil a treaty obligation involved international responsibility'. The logic of the rule is not disputed. As the Commentary to the Articles state, 'every State, by virtue of its membership in the international community, has a legal interest in the protection of certain basic rights and the fulfilment of certain essential obligations', and also that 'the basic principle of international law is that each State is responsible for its own conduct in respect of its own international obligations'. See Crawford pp.77-80.

[143] Crawford, p.81.

[144] Crawford, p.81-2.

[145] Crawford, p.83.

[146] Crawford, p.84.

[147] This line of reasoning is adopted by Joy-Dee Davis in her paper *State Responsibility for Global Climate Change: the case of the Maldives* (2005), http://fletcher.tufts.edu/research/2005/Davis.pdf on 14-07-07, p.24.

[148] Crawford, p.125.

[149] Crawford, p.125.

[150] Verheyan, p.249.

[151] See Verheyan, p.249.

[152] For definition of general causation see Tol, Richard S.J. and Verheyan, Roda *Liability and Compensation for Climate Change Damages – a legal and economic assessment* 15-09-01

viewed at:
www.vulnerabilitynet.org/OPMS/getfile.php?bn=seiproject_hotel&key=1140130282&att_id=1012
on 16-08-07, p.3.

[153] Tol and Verheyan, p.3.

[154] Tol and Verheyan, p.3.

[155] IPCC Summary for Policymakers, p.4. This is further accepted by Tol and Verheyan, p.4.

[156] Verheyan, p.249.

[157] See Verheyan, p.250.

[158] Verheyan, p.251.

[159] Verheyan, p.252.

[160] Verheyan, p.252.

[161] Okowa cited in Verheyan, p.253.

[162] Cited in Verheyan, p.253.

[163] Tol and Verheyan, p.4.

[164] Verheyan, p.253-4.

[165] Verheyan, p.253-4.

[166] Verheyan, p.254.

[167] Verheyan, p.255.

[168] Verheyan, 256.

[169] Verheyan, p.255.

[170] Cited in Verheyan, p.255.

[171] Verheyan, p.256.

[172] Xue, p.74.

[173] Xue, p.74.

[174] Tol and Verheyan, p.2.

[175] Tol and Verheyan, p.2.

[176] Louka, p.41.

[177] Louka, p.41.

[178] Tol and Verheyan, p.3.

[179] Tomuschat cited in Tol and Verheyan, p.3.

[180] Tol and Verheyan, p.3.

[181] Tol and Verheyan, p.3.

[182] Shelton, para.1(b)(iii).

[183] Shelton, para.1(b)(iii).

[184] Shelton, para.1(b)(iii).

[185] Crawford, p.270.

[186] Crawford, p.270.

[187] Crawford, p.272.

[188] Crawford, p.274.

[189] Crawford, p.274.

[190] Tol and Verheyan, p.4.

[191] Tol and Verheyan, p.4.

[192] Tol and Verheyan, p.5.

[193] Tol and Verheyan, p.5.

[194] Middaugh, para.195.

[195] Verheyan, p.235.

[196] Verheyan, p.235.

[197] Verheyan, p.237.

[198] Cited in Middaugh, para.193.

[199] Middaugh, para.193.

[200] *Impacts of a Warming Arctic – Arctic Climate Impact Assessment* (Cambridge, CUP: 2005), p.2.

[201] *Impacts of a Warming Arctic*, p.8.