1. Small Island States in the Face of Climatic Change: The End of the Line in International Environmental Responsibility

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1. Small island developing states in international law

Small island developing states (SIDS) are increasingly recognised as deserving of special consideration, both in international law generally and in international environmental law in particular. This special recognition has grown since the 1992 Earth Summit and was clearly reflected in the 1994 Programme of Action for the Sustainable Development of Small Island Developing States (to be revisited in 2004) and within the 2002 Plan of Implementation from the World Summit on Sustainable Development (WSSD, 2002a, Chapter VII). These documents all reflect the same consideration: that most SIDs face an uphill battle in meeting the challenges of sustainable development irrespective of climate change. They already need specific assistance to meet the economic, social and environmental problems that are already affecting them. Accordingly, as the Political Declaration of the 2002 World Summit on Sustainable Development concluded, the countries of the world would, among other things, 'continue to pay special attention to the developmental needs of Small Island Developing States' (WSSD, 2002b, Paragraph 24). Unfortunately for SIDs, however, the other dilemmas they face in achieving sustainable development are dwarfed by one environmental problem over all others: climatic change.

2. Climate change

'Climate change' refers to a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is, in addition to natural climate variability, observed over comparable time periods (UNFCCC, 1992, Article 1. Definitions). Anthropogenic climate change is caused by 'greenhouse gases'. The primary greenhouse gases are carbon dioxide, methane, and nitrous dioxide. These gases are increasing in concentration in the atmosphere. The evidence for

this may be seen in the oscillations of historical greenhouse gas concentrations through to more specific contemporary measurements. These measurements show concentrations of greenhouse gases not found in the atmosphere for thousands of years.

3. The sources of the pollutants

Modern industrial society is the primary culprit in terms of the creation of greenhouse gases. Since the industrial revolution industry, agriculture, and transport have all contributed vast amounts of emissions. Historically, the lion's share of these pollutants came from developed countries. This share may be seen in terms of sovereign output (i.e. the country's overall emissions) and per capita output (i.e. an individual's emissions from one country compared to an individual in another). Both types of output involve a different emphasis as well as a different political point of view IPCC (1996a, pp.7–8). For example, in the mid-1990s, the global average for per capita carbon dioxide emissions was 4,157kg, but the national figures ranged from 19,675kg for the United States through to 949kg for China, 652kg for India, all the way down to 2kg for Somalia (UNDP, UNEP, World Bank, WRI, 2000, p.282). Although there are some developing countries, such as Turkey, Korea and Mexico (Pearce, 1997), that are taking their per capita outputs to levels comparable to those of developed countries, the wide disparity in emissions on a per capita basis between the developed and developing world is expected to continue into the foreseeable future. Conversely, when viewed from a sovereign basis, with regard to developed countries (if viewed as a 100 per cent total of carbon dioxide emissions), the United States produces 36.1 per cent of total emissions, the Russian Federation 17.4 per cent, Japan 7.4 percent, Germany 7.4 per cent and the UK 4.3 per cent (Kyoto, 1997a, Annex). However, unlike the remaining differences between developed and developing countries with regard to greenhouse gas emissions on a per-capita basis, a clear change is occurring with regard to sovereign emissions. The key change is that the aggregate emissions from developing countries are growing at a much faster rate than those of developed countries (IEA, 2000, p.167). If such increases continue, it is expected that the developing world will be producing more carbon dioxide from the burning of fossil fuels by 2005 than all the industrialised countries were producing in 1988 (Pearce, 1988,). Between 2010–25, the developing world should be responsible for well over half of all global emissions (Pearce, 1997; MacKenzie, 1990, p.5; and Reddy, 1990, pp.63, 69). Certain key developing countries are expected to make exponential increases in their emissions. For example, by 2025 (if not earlier) China is expected to be the world's largest emitter, in overall terms, of greenhouse gases (Smil, 1994, pp.325–32).

4. Present changes and future predictions

The scientific evidence of global warming currently available is consistent with, but does not yet provide definitive proof of, the theories of climatic change (IPCC, 2001a, p.2). The current evidence consists of continual record breaking annual global temperatures (IPCC, 2001a), increased precipitation and storm activity, enhanced unusual

weather patterns (IPCC, 2001a) over a number of (but not all) regions (IPCC, 2001a, n13.4), an increase in cloud cover over some regions (IPCC, 2001a), increased frequency and intensity of droughts in some regions (IPCC, 2001a, n13. 5), changes in species migration (Pearce, 2002a), shrinkage of glaciers, thawing of permafrost, later freezing and earlier break-up of ice on rivers and lakes, lengthening of mid- to high-latitude growing seasons, poleward and altitudinal shifts of plant and animal ranges, declines in some plant and animal populations, and earlier flowering of trees, emergence of insects, and egg-laying in birds. Associations between changes in regional temperatures and observed changes in physical and biological systems have been documented in many aquatic, terrestrial and marine environments (IPCC, 2001). There is also already evidence that sections of the ocean are becoming less saline and warmer (IPCC, 2001a).

Exactly where such trends will take us in the future, in terms of overall temperature changes, is a matter of debate. That is, the current estimates of what the temperature change will be by 2100 range between 1°C–5.8°C (IPCC, 2001a). The variance in this figure is due to unpredictable factors such as technology, demographic change, and economic development (IPCC, 2000, pp.1–15). This is an important point: the full effects of climate change are not unalterable and the choices that governments make in the present have the ability to influence any final outcome. Despite the fact that the climatic future is not set in concrete, it is likely that without radical changes to current emissions that humanity will witness temperature increases in the range of 0.1 to 0.2°C per decade over the short-term future (IPCC, 2001a, n13.13). Although these figures appear small, if they continue unabated they may come eventually to represent temperature changes that have not been seen for tens of thousands, if not hundreds of thousands, of years.

5. The impacts of climatic change upon SIDs

The adverse effects of climate change are those that alter the physical environment or biota, that in turn have significant deleterious effects on the composition, resilience, or productivity of natural and managed ecosystems, or on the operation of socio-economic systems, or on human health and welfare (FCCC, 1992, Article 1. Definitions). These adverse effects could result in significant impacts on many ecological systems and socio-economic sectors (COP, 1996). It is likely that these effects will be more pronounced on developing countries due to their restricted ability to adapt to quickly changing situations (IPCC, 1996a, p.10).

In terms of specific effects, climatic change will affect a vast number of ecologically related considerations. In terms of overall problems facing a large number of countries, it is expected that climatic change will, in certain areas, affect food production (output and location) (IPCC, 1996b, p.9 and IPCC, 1998, p.6), stress fresh water supplies (IPCC, 2001a, n20. 4, 8; and IPCC, 1998, p.5) increase the intensity of heat waves (IPCC, 2001a, n20, p.4; and WRI, UNDP & World Bank, 1999, pp.67–69), and, in conjunction with other factors, increase levels of certain diseases such as malaria and dengue fever IPCC, 1996b, p.12).

With particular regard to SIDs, a number of additional threats may be considered paramount. First, sea levels may slowly rise due to the thermal expansion of the oceans and the reactions of the icecaps [*they are reacting to the thermal expansion of the oceans? If not say 'to the rise in temperature' after 'icecaps'*] (IPCC, 2001a, n13.16). The time frame adopted for this scenario will affect the picture of the anticipated sea-level rise. As a rule, increases in the rise of sea levels are much greater the further the time frame is cast (IPCC, 2001a, n13.16). For example, in 500 years an eventual rise of 7 to 13 metres may be likely. However, the typical time frame is 100 years, and between 2000 and 2100 the global mean sea level is projected to rise by between 0.09 to 0.88 metres (IPCC, 2001a, n13.16).

Sea-level threats may have a detrimental effect on a number of industrialised and developing countries (IPCC, 1998, n30.7, 15-16). As bad as sea-level increases may be for these countries, however, it is the SIDs that are at the edge of extreme risk. This threat has been repeatedly recognised in the discussions of the United Nations Framework Convention on Climate Change (FCCC) (UNFCCC, 1992, Preamble. Paragraphs 12 & 19; see also Decision 1/CP. 7.3.), regional groupings such as the South Pacific Forum,[1] and the UN Global Conference for the Sustainable Development of Small Island Developing States, the latter of which noted:

> *'While small island developing states are among those that contribute least to global climate change and sea level rise, they are among those that would suffer most from the adverse effects of such phenomena and could in some cases become uninhabitable'* (UN GCSDSIDS (1994).

This prognosis is possible given the fact that many SIDs rarely rise more than 3 to 4m above the present mean sea level (IPCC, 2003, p.34). A 1m rise could result in an 80 per cent land loss for the Majuro Atoll in the Marshall islands (IPCC, 1996a, n29.11). The Maldives consist of some 1,300 tiny islands, with an average size of only 1-2km^2 and an average height above sea level of only 1 to 1.5m (Wells, 1989). Tuvalu consists of five atolls and four separate reef islands and has a total land mass of only 23km^2, virtually all of which is less than 2m above sea level (*New Scientist*, 1989). Kiribati consists of 700km^2 on 33 islands, most of which are also less than 2m high (Pearce, 2000a). All of these SIDs are all directly at risk. Larger islands such as Tonga and Vanuatu are also threatened (New Scientist, 1992).

The overt threat to SIDs is due to the fact that the adaptive capacity of human and ecological systems is generally low in these areas, while their vulnerability is very high. The 2001 projected sea-level rise will probably cause enhanced coastal erosion, loss of land and property, the dislocation of people and the consequent threat of 'environmental refugees' (Beston, 2000; and Pearce, 1992), reduced resilience of coastal ecosystems, saltwater intrusion into freshwater resources, and high resource costs that will be necessary to respond to and adapt to these changes. Islands with very limited water supplies are also highly vulnerable to the impacts of climate change on the water balance. Tourism, an important source of income and foreign exchange for many islands, may face severe disruption from climate change and sea-level rise. Limited

arable land and soil salinisation makes agriculture in SIDs, both for domestic food production and cash crop exports, highly vulnerable.

In addition to the problem of a rising sea-level, two further consequences of climate change may have a disproportionate affect upon SIDs. First, with regard to worsening weather patterns, the most commonly associated climatic phenomena linked to global warming are storms, tornadoes, and cyclones (Pearce, 2002d). The evidence, according to the insurance industry, is that weather-related damage has increased fourfold since 1960 (Pearce, 2002c).-Although this is an area of uncertainty (especially with regard to region-specific impacts), it is predicted that as the climate warms precipitation in certain areas will increase (IPCC, 2001a, n13.13), as will storm activity (IPCC, 2001a, n13.5, 16).

Second, climate change will have disruptive effects on specific ecosystems. Typically, the climatic change effects on ecosystems are linked to the ice caps and forests. However, there is an equally important body of work of direct relevance to SIDs relating to the effects upon oceans. Oceans sequest and store larger amounts of carbon than land-based reserves. In doing so, they retain heat storage and control thermal inertia. Accordingly, oceans are the 'flywheel' of the climate system (IPCC, 1996a, n29.14). Although the biological consequences of a changing climate upon the oceans are far from fully understood, it is believed that the change may bring about detrimental results by raising the temperatures of the oceans. This will probably change migratory patterns for a number of ocean species (Broecker, 1997), facilitate habitat destruction – especially in critical areas for dependent species (IPCC, 2001c, pp.2, 11), and may lead to drastic changes in ocean circulation, vertical mixing and overall climatic stability. Such effects could have strong implications in terms of nutrient availability, biological productivity and the structure and functions of the marine ecosystems most critically affected (Independent World Commission on the Oceans, 1998, p.45). For the species that are already endangered, the effects may be terminal. This is especially so where the species are endemic and have few migration options. Unfortunately, the biodiversity in and around SIDs often fits squarely within these criteria (IPCC, 2003, pp.31–4).

Coral reefs are key oceanic ecosystems and are often associated with SIDs. The prognosis for these ecosystems is typically one of advanced bleaching because of reduced calcification rates due to higher greenhouse gas levels. This may happen because coral reefs require highly stable environments, and temperature fluctuations of just one or two degrees above normal can have a devastating impact upon them (Pearce, 2002b). Episodes of coral bleaching over the past 20 years have been associated with several causes, including increased ocean temperatures. As of 2002, an estimated 16 per cent of the world's coral reefs have died from bleaching since 1998 (Pearce, 2002e). It is likely that future sea surface warming will increase stress on coral reefs and will result in the increased frequency of marine diseases (IPCC, 2001b, n30.12; and Dicks, 2003) In addition, mangrove, sea-grass beds, and other coastal ecosystems and their associated biodiversity may be adversely affected by rising temperatures and accelerated sea-level rise. Declines in coastal ecosystems will probably also have a negative impact

upon reef fish and will threaten reef fisheries, as well as the livelihoods of those who rely upon such resources (IPCC, 2001b, n30.17).

In conclusion, the potential effects of climatic change upon SIDs are extreme. This is because not only will SIDs most likely experience the same effects of climatic change as other countries in terms of impacts on food, water, disease and heat waves, but they will also suffer a series of problems which will be uniquely detrimental to them. These are sea-level rise, increased erratic weather, and changing ecosystems. Each one of these effects will be difficult enough to manage. Cumulatively, the ultimate outcome may only be guessed at.

6. The international response to climate change

6.1 The accepted ecological limit and the scientific recommendations

The accepted ecological obligation to be regarded as the guide to international negotiations in this area is found in the FCCC. This guiding provision stipulates that the ultimate objective of the Convention is to achieve the:

> *'stabilisation of greenhouse gas concentrations 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 that food production is not threatened and to enable economic development to proceed in a sustainable manner'* (UNFCCC, 1992, Article 2).

In hard numbers, the Intergovernmental Panel on Climate Change has suggested that to stabilise (not necessarily reduce) the build-up of greenhouse gases in the atmosphere to prevent a doubling of the pre-industrial concentrations of greenhouse gases will require emission reductions: 'to decline to a very small fraction of current emissions' (IPCC, 2001a, n13.12). The typical figure associated with this cut is an approximate reduction of 60 per cent in the current level of greenhouse gas emissions (for discussion see IPCC, 1995, p.11).

6.2 The international legal response

In spite of a long process of discussions, the 1992 FCCC failed to contain any hard goals on reducing greenhouse gas emissions. Rather, the soft obligation for developed countries was to reduce, by the end of the 1990s, their greenhouse emissions to 1990 levels (UNFCCC, 1992, Article 4(2)a). However, the soft target within the FCCC was soon recognised as inadequate and the signatories thereafter concluded the Kyoto Protocol. The final target adopted in the Kyoto Protocol obliged developed countries to reduce their greenhouse emissions by: 'at least 5 per cent below 1990 levels in the commitment period 2008 to 2012' (Kyoto Protocol, Article 3.(1). Note, the targets for developed countries are differentiated. Accordingly, not all countries have the same reduction target).

6.3 The difficulties between the ecological limits and the legal response

Despite the achievements of the Kyoto Protocol, there are three clear problems in this area which make the chasm between the scientific and legal responses very wide.

First, the overall targeted reduction period is remarkably limited. The defence against this is that it is hoped that the Kyoto Protocol targets will be increasingly revisited (ideally like those of the Montreal Protocol) as the scientific needs solidify – along with the will of the international community to confront the problem. Although this may be the desire, the first step of the Kyoto process (a 5 per cent reduction in the face of the necessary 60 per cent reduction) is comparatively small, when it is considered that the first step of the Montreal process was a 50 per cent cut in harmful emissions (Montreal Protocol, 1987, Article 2 & Annex A). This is not to demean the 5 per cent target, rather to point out that given the very slow rate of progress – based on both the size of the target and time within which it has to be achieved – if the international community continues at the same pace, it will, from the perspective of the SIDs, most probably be too late to make any meaningful difference.

The second difficulty is that although the 5 per cent reduction is comparatively small, it has already resulted in vast difficulties for one of the key greenhouse gas emitters – the United States – which has chosen to walk away from the Kyoto Protocol and refused to ratify it (Brown, P., 2001). This act not only diluted the overall effectiveness of the Protocol because of the absence of the world's largest emitter of greenhouse gases, but also threatened the existence of the overall Protocol, because 55 per cent of (developed) countries with reduction obligations have to ratify the Protocol before it comes into force (Kyoto Protocol, Article 25.1). The United States' refusal to ratify the Protocol meant that virtually every other industrialised country had to in order for it to enter into force.

The third problem is that the reductions envisaged by the Kyoto Protocol only apply to developed countries (Kyoto Protocol, Preamble, Paragraph 4). Moreover, any attempts to begin to place even the smallest of mandatory – as opposed to voluntary – limits upon the greenhouse gas emissions of developing countries have been forcefully resisted, despite the clear pressure from high-level fora such as the G8 (G8 Summit Communique, no date; G8 Environment Minister's Communique, no date). Although there may be strong political justifications for this point of view, from the perspective of those at the sharp end of the ecological effects of climate change, failure to include at least the primary developing countries – who will soon become the principal emitters of greenhouse gases – in any meaningful reductions of even stabilisation targets is very bad news.[2]

The result of these three points is that the Kyoto Protocol is a weak instrument in terms of its overall reduction goals, its failure to include the United States, and its failure to encompass developing countries.

7. SIDs within the climate change negotiations

7.1 Substantive influence

At the fourth formal meeting in the negotiations leading to the formation of the FCCC the Alliance of Small Island States (AOSIS) emerged as a group independent of both the industrialised and developing-country groupings. Their independent status developed because of their unique position in the climate change debate; of all countries, they are probably the most threatened by the effects of climatic change. As such, their desire to halt global warming is greater than any other countries (developed and developing) whose agendas may be complicated by any number of other objectives. This specific role has been evident since the late 1980s when gatherings such as the South Pacific Forum tried continually to focus world attention on the threats that they face from climate change. This problem, and the necessity to solve this problem, is, as the 1994 Global Conference on the Sustainable Development of Small Island Developing States noted, of 'utmost importance to small island developing states' (Report of the Global Conference on the Sustainable Development of Small Island Developing States, 1994, Annex I, Section III, Paragraph 19. The particularly vulnerable status of SIDs was reconfirmed at the 2002 World Summit on Sustainable Development (WSSD, 2002, Paragraph 36).

Such needs and vulnerabilities have resulted in the SIDs receiving special recognition within the FCCC (UNFCCC, 1992, Article 4(8)a), and being given advanced speaking rights there. They made notable use of their special status in the mid-1990s by trying to achieve meaningful reduction targets, such as that proposed by AOSIS for a 20 per cent reduction in greenhouse gases by industrialised countries in 1995. Unfortunately, this proposal met with little success (Report of the COP, 1995, Part One, Proceedings, Paragraph 57 & 58). Thereafter, their advanced speaking rights failed to make any noticeable impact on the international diplomatic landscape.

Despite this omission at the FCCC level, the SIDs continue to reiterate their 'deep concerns' about climate change in a number of other fora that are easier for SIDs to control. For example, in the South Pacific Forum, the members continue to call for: 'urgent action to reduce greenhouse emissions and for further commitments in the future by all major emitters' (Thirty Third Pacific Island Forum, 2002, PIFS (02) 8. Paragraph 24 & 25). Within the South Pacific context, such demands have become a clear source of tension with some of the SIDs' more reticent neighbours, such as Australia, who have refused to ratify the Kyoto Protocol (Thirty Third Pacific Island Forum, 2002, PIFS (02) 8. Paragraph 26). The overall disappointment with both the United States and Australia with regard to this matter cannot be understated. This is probably best displayed by the serious consideration given in the region by some of the SIDs to attempt to sue both Australia and the United States over their failure to ratify the Protocol (Christie, 2002).

7.2 Special considerations for SIDs within the FCCC

In addition to their special status within the workings of the FCCC, the SIDs are also unique in their link to climate-related financial assistance to meet the adverse effects of climate change. In this regard they are at the front of the queue in terms of financial assistance for both capacity building and general assistance to meet their reporting and public education goals. Likewise, with regard to financial assistance for adaptation to climate change the SIDs are at the front of this staggered process (UNFCCC). Finally, a dedicated fund exists to help the most vulnerable countries (UNFCCC, Article 3(2) & 4.(4)) of which the SIDs (along with the least developed countries) are, once more, at the forefront (UNFCCC, 1992, Article 4. 8. Decision 6/CP.7. Additional guidance to an operating entity of the financial mechanism). The Fund for helping the most vulnerable countries focuses largely on the initial stages of adaptation by making sure that national adaptation plans[3] are adequate and that the capacity-building process of these countries is well supported by suitable experts.

8. Moving outside of the conventional debate

When the overt risks posed to SIDs are juxtaposed against the limited and precarious nature of the Kyoto Protocol, the question needs to be asked: what can be done to improve the situation? A number of suggestions have been advanced and fall into the categories of broadening the leverage via human rights considerations and/or realigning the debate in terms of broad obligations regarding sustainable development, as enshrined in international law.

8.1 Human rights vs inter-sovereign negotiations

Given the dire nature of the current international legal situation, some commentators have suggested that there may be merit in pursuing actions in other international or political arenas, with a view to enhancing the legal status of the citizens of SIDs in the face of climate change. Such ideas typically include conventional or/and evolving human rights theories. The traditional human rights claims, when viewed from a SIDs perspective, may invoke key articles from the Universal Declaration of Human Rights, such as article 15 which provides that no-one shall be denied their nationality (see the Universal Declaration of Human Rights (1948) reprinted in Evans, 2003, pp.36, 41). More liberal approaches argue that there is (or should be) a human right to a clean and secure environment which should be enforced. The genesis of this claim comes from the 1972 Stockholm Declaration on the Human Environment which stated as its first principle:

> *'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, and he bears a solemn responsibility to protect and improve the environment for present and future generations.'*

The last two words of this principle, pertaining to the so-called rights of 'future generations', add an extra layer of depth to these arguments. This is especially so given the

near endless manner in which the language of the 'rights and interests of future generations' has become entwined in the documents of international law and international judgments (see Gillespie, 1997, Chapter 5). For example, the International Court of Justice (ICJ) in its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons (ICJ Reports, 1996, para. 29) clearly stated:

> *'the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn'.*

Given the fact that many of the forecasted detrimental effects of climate change will happen in the future and ultimately effect the generations yet unborn, this ideal has a particularly strong resonance.

Despite the philosophical allure of such ideas revolving around human rights discourses, it needs to be clearly recognised that these will not solve the problem of adequately confronting climatic change. There are three reasons for this. Firstly, the appeal of the rights of future generations is only an idea. Moreover, as an idea, it is philosophically lacking in terms of both theory and possible application (Gillespie, 1997, n94). Beyond acting as a moral compass, the future generations argument has no legal standing in international law. Likewise, so-called human rights based upon environmental considerations have no standing in international law. The international community has already backed away from the strength of Principle 1 of the Stockholm Declaration. This retreat can clearly be seen with the first principle of the Rio Declaration in 1992 ('Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.') which represented a clear watering down of the Stockholm Declaration on this idea. The 2002 World Summit on Sustainable Development followed suit and presented an even thinner version than both of its predecessors on this point. It is also significant that no treaty refers explicitly to the right to a decent environment in such terms. This failure is not hard to understand when the slow progress of the rights discourse development is recognised. Even more widely accepted ideas, such as those relating to the rights of indigenous people, that exist now (let alone in the future) are currently struggling to be recognised (see Gillespie, 2001a; and 2000).

The final problem is one of substance based upon the current international system (Birnie and Boyle, 2002, p.256). The difficulty is that climate change, as with all major international environmental problems, has to be dealt with on a state-to-state basis. To argue otherwise is to confuse apples and oranges. The solution to this problem will come from agreements between sovereign states. This means that the rights that individuals may or may not possess will not, in this context, provide the leverage necessary to achieve the desired goals within in the Westphalian system that the global community currently inhabits. For example, when New Zealand and Australian citizens were concerned about the detrimental health and environmental effects of French atmospheric (ICJ, 1974b) and underground (ICJ, 1995) nuclear testing in the South Pacific, they did not posit their cases upon the rights of individual citizens. Accordingly, the ICJ resolved the dispute through obligations owed between countries and not to indi-

viduals within them. Likewise, when countries were concerned that their water supply from neighbouring countries was being detrimentally affected, their claim was not based on the effects on the individual but on the obligations owed between states in this area (ICJ, 1997). Finally, when citizens of countries were threatened with complete and utter destruction by the possible use of nuclear weapons that other countries possess, the case was not presented on the basis of human rights (as clearly nuclear war must run contrary to every possible human right) but on the basis of state relations as traversed through a number of international state-to-state documents and obligations (ICJ, 1996). This is not to suggest that human rights approaches do not have merit. Nothing could be further from the truth. Rather, this is to point out that human rights approaches will not provide the platform necessary to achieve change in this arena.

8.2 Sustainable development

Given the limitations of the rights approach, as well as the current difficulties with the Kyoto Protocol, some commentators have suggested that attempts should be made to achieve leverage by arguing that the actions of many countries with regard to greenhouse gas emissions are blatantly unsustainable from a SIDs perspective. Given the mantra-like quality of 'sustainable development' emanating from the 1972, 1992, and 2002 international conferences where, in the last one at least, the signatories pledged their 'Commitment to Sustainable Development' (WSSD, 2002c), this would appear a very strong argument due to its universal acceptance. In addition, when juxtaposed against the extremity of the climate change and SIDs debate it should be very easy to apply. Indeed, if sustainable development is to mean anything, at its base it would have to encompass a states' basic right not to be obliterated by the acts of other states that have a negative environmental impact.

Although this claim has an intuitive appeal to it, it too is doomed to failure. In an ideal world, the phrase 'sustainable development' could be aired and all would agree and know what was meant by it. However, we do not live in an ideal world and the term 'sustainable development' has become increasingly lost in a labyrinth of political (Gillespie, 2001b) and philosophical (Gillespie, 1997) considerations.

Such fundamental differences, which are inherent in the term 'sustainable development', have a direct bearing on the question of whether sustainable development can, in any sense, be considered to be an enforceable legal principle as opposed to a moral goal. Indeed, it is possible to identify the main elements of the concept of sustainable development, such as the moral consideration of future generations. However, their specific normative implications are far from certain in relation to the manner is which they relate to each other in terms of international environmental concerns, let alone with regard to human rights law or international economic law (see Birnie and Boyle, 2002, p.85). One only has to examine the potpourri of ideas that accompanied the declarations in 1972, 1992 and 2002 to realise that although such declarations may contain many lofty ideals, when these are properly thought through, they may, in fact, be at loggerheads with each other. Accordingly, a consensus on the meaning of sustainable development or on how to implement it in individual cases is clearly lacking in

the international arena (Birnie and Boyle, 2002, p.95). This failure is obvious in practice where bodies such as the ICJ have steered away not only from the broader debates about the principles of what is or is not sustainable development, but also from the labyrinth of weighing social, political, philosophical, and economic values in the sustainable development debate. As such, it is much easier for the ICJ to slip into an examination of justiciable questions which focus on procedurally related issues in the sustainable development debate (such as the adequacy of environmental impact assessments, etc.). Thus, it is only when the ideals of sustainable development can actually be run through some existing and agreed standards or principles that the adequacy of the goals and processes can be meaningfully evaluated.

9. Understanding the international court of justice: The climate negotiations as the only game in town

Between 1994 and 1996, the ICJ struggled with the question pertaining to the legality of nuclear weapons. Although it eventually came to the conclusion that to use nuclear weapons in self defence as a last resort was not illegal, it did, however, set out a number of caveats along the way. Of particular note for this discussion was the idea that the question of the legality of nuclear weapons could ultimately be decided outside of an ongoing international process. That is, the states that possess nuclear weapons were already engaged in the Non Proliferation Treaty with its promise to: 'pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control' (Non-Proliferation Treaty, 1968, Article IV). It was because of this ongoing process within an existing, specific, international framework which was/is designed to conclude the substance of the question before the ICJ, that the ICJ decided that the possession of such weapons could not be illegal. This was because – somewhat obviously – if they already had such weapons and were trying to negotiate a way to rid themselves of them, until the negotiations were concluded, the weapons could not, ipso facto, be considered illicit. The same conclusion would exist for the climate change context.

This treaty provided what the ICJ called the 'broader context' (ICJ, 1996) in which to pursue and conclude such negotiations in good faith. This obligation of good faith in international negotiations is repeated in numerous other international instruments[4] and in other ICJ cases such as those relating to Nuclear Testing (ICJ, 1974a) and the Gabcíkovo-Nagymaros Project (ICJ, 1997, para 142). In the latter instance, the Parties were directed back to the negotiating table to: 'look afresh at the affects on the environment ... [and find] ...a satisfactory solution' (ICJ, 1997, para 140). Moreover, this obligation to return to the bargaining table was not to be taken lightly because:

> *'The Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage'* (ICJ, 1997, para 140).

The conclusion of the Gabcikovo-Nagymaros judgment, like that on the Legality of Nuclear Weapons, is particularly telling. That is, beyond the obligations to negotiate in good faith:

> *'It is not for the Court to determine what shall be the final result of these negotiations to be conducted by the Parties. It is for the Parties themselves to find an agreed solution that takes account of the objectives of the Treaty, which must be pursued in a joint and integrated way, as well as the norms of international environmental law...'* (ICJ, 1997, para 141).

10. Conclusion

SIDs are already vulnerable to globalisation in conventional economic, social and environmental terms. They are, however, particularly vulnerable to one environmental problem above all others, climate change. Climate change has the propensity to change radically the ecology of SIDs at multiple levels and, in certain instances, it may threaten their very existence. Even for those SIDs that can survive sea-level rises, they will still have to contend with climatic changes which will most likely affect everything from the species that they harvest through to their status as a tourist destination.

The good news is that the international community has agreed to a treaty and protocol which have the agreed underlying objective of stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. The bad news is that the Kyoto Protocol is nowhere near achieving this goal given the meagreness of the target, the failure of the United States to accept it, as well as the failure to include developing countries. Accordingly, given the way the negotiations are currently heading, it is likely that the international community will fail in the goal it has set itself.

This failure is already being reflected in the climate negotiations themselves, where the SIDs have slowly disappeared from making the substantive suggestions and actions akin to their original privileged role in the FCCC forum. Currently, the SIDs' influence appears to be one of being trapped within the financial mechanisms of the regime which are closer to adapting to climate change, rather than trying to stop the problem at source. In other words, the battle is already lost and the best approach for SIDs is to prepare for the inevitable rather than taking the lead at forcing mitigation. This retreat is regrettable as the climate future is open for capture.

Given this scenario, the question must be asked: Where to from here? Are there other ways to secure the rights and interests of the SIDs? Within this realm, suggestions have ranged from using human rights claims through to re-orientating the debate to one of wide-ranging discussions about what is, or is not, sustainable development. Both of these approaches are doomed to failure if the objective is to solve the problem at hand by stopping the encroaching problem, rather than allowing it to occur.

If the objective is to solve the problem and protect the interests of those who are most at risk, it is essential that the climate negotiations are reinvigorated. Moreover, the International Court of Justice is clear on this point: when negotiations are ongoing in

a distinctive forum, it will not interfere with those discussions unless they are being conducted in bad faith or are clearly diverting from either established principles or the goals of the Convention they are operating under. Here is the nub: given the accepted goal of the FCCC and the current dismal position of the Kyoto Protocol, it is possible that a failure of good faith is occurring, especially when viewed from the perspective of the SIDs given the limited time frame in which climate change must be confronted. As such, if the objective is to protect the interests of the citizens of the SIDs, two options need active consideration. First, the influence of SIDs needs to be reactivated and strongly enhanced within the FCCC negotiations. Second, there may be merit in seeking an ICJ advisory opinion in this area – to see if good faith is being met in the context – as the consequences of climate change and the current international failure to meet the FCCC goals are both spectacular failures that future generations in the SIDs will have to inherit.

Notes

1. For example: 'global warming and sea level rise were among the most serious threats to the Pacific region and the survival of some island states.' South Pacific Forum Communique. Paragraph 29. Available from www.forumsec.org.fj/docs/fc93.htm.
2. This is not to suggest that reduction targets for developing countries should be simply forced upon them. Clearly, developed countries have to take the lead in this process, due to their clear historical legacy for the cumulative build-up of greenhouse gases in the atmosphere. Moreover, despite the fact that the developing countries emissions will eventually eclipse those of the industrialised countries, the continuing disproportionate per-capita emissions, in line with the technological and economic ability to successfully confront climate change should actually make the burden fall more on the developed world. However, the bold point remains that the developing countries are not obliged to make any greenhouse reductions (irrespective of the linkages for why this is, or ought to be another way).
3. UNFCCC, 1992, Decision 28/CP.7. Guidelines for the Preparation of National Adaptation Programmes of Action (NAPAs). These were clearly going well, as in 2002 the COP decided they did not need to be reviewed. See Decision 9/CP.8. Review of the guidelines for the preparation of national adaptation programmes of action.
4. This basic principle is set forth in Article 2, paragraph 2 of the Charter. It was reflected in the Declaration on Friendly Relations between States (resolution 2625 (XXV) of 24 October, 1970) and in the Final Act of the Helsinki Conference of 1 August, 1975. It is also embodied in Article 26 of the Vienna Convention on the Law of Treaties of 23 May, 1969, according to which '[e]very treaty in force is binding upon the parties to it and must be performed by them in good faith'.

References

YBIEL 2 (1991) *Yearbook of International Environmental Law 2*. Oxford University Press, Oxford. p.112.

YBIEL 8 (1997) *Yearbook of International Environmental Law 8*. Oxford University Press, Oxford. pp.184–5.

Adler, R. (1999) 'Fresher Waters', *New Scientist*, July 31, p.22.

Adler, R. (2001) 'Here Comes the Rain', *New Scientist*, December 22, p.11.

New Scientist (2000) 'All Change', *New Scientist* , November 4, p.13.

AOSIS Protocol. (1994) Noted in *YBIEL 5*. Oxford University Press, Oxford. p.164.

Beston, A. (2000) 'Climate Refugees', *NZ Herald*, Feb 15, A5.

Birnie, P. and Boyle, A. (2002) *International Law and the Environment*. Oxford University Press, Oxford, 2nd edn.

Broecker, W. (1997) 'Thermohaline Circulation: The Achilles Heel of our Climate System?', *Science*, 278, pp.1582-8.

Brown, L. (2001) *Vital Signs: 2000-2001*. Earthscan, London.

Brown, P. (2001) 'US Isolated By Treat to Arrest Climate Change', *Guardian Weekly*, July 26, p.1.

Christie (2002) 'Lawsuits may be next weapon in climate change fight.' March 6, Reuters. Available from: www.enn.com/news/wire-stories/2002/03/03062002/reu_46587.asp

Cocker, M. (1999) 'Coral Reefs Don't Like It Hot', *Guardian Weekly*, Dec 19, p.32.

COP, 1996 The Geneva Ministerial Declaration. Report of the Second Session of the COP, Geneva. 1996. FCCC/CP/1996/15/Add.1. 29 Oct. 1996. Annex. Para 2.

Depledge, J. (1999) 'Coming Of Age At Buenos Aires', *Environment*, 41(7), pp.15, 18.

Desai, B. (1999) 'Institutionalising the Kyoto Accord', *Environmental Policy and the Law*, 29(4), p.159.

Dicks, L. (2003) 'Worm Brings Death to Coral', *New Scientist*, Apr 12, p.16.

Ecologist (1999) 'The World's Coral Reefs In Hot Water', *Ecologist*, 29(3), p.1.

Edwards, R. (1999) 'Freezing Future', *New Scientist*, Nov 27, p.6.

Edwards, R. (2003) 'The Mother of All El-Nino's Revealed', *New Scientist*, Jan 18, p.4.

Epstein, P. (2000) 'Is Global Warming Harmful To Health?', Scientific American, August, pp. 36-43.

Evans, M. (2003) Universal Declaration of Human Rights, 1948. Reprinted in *Blackstones's International Law Documents*, M. Evans (ed). Blackwells London, pp.36, 41.

G8 Environment Minister's Communique. Available From www.g7.utoronto.ca/g7/environment/2001trieste/communique.html, Paragraph 8.

G8 Summit Communique. Available from www.g7.utoronto.ca/g7/summit/1998birmingham/finalcom.htm

Gillespie, A. (1997) *International Environmental Law, Policy & Ethics*. Oxford University Press, Oxford..

Gillespie, A. (2000) 'Biodiversity, Indigenous Peoples & Equity in International Law', *New Zealand Journal of Environmental Law*, 4, pp.1-49.

Gillespie, A. (2001a) 'Aboriginal Subsistence Whaling: A Critique of the Inter-Relationship Between International Law and the International Whaling Commission.' *Colorado Journal of International Environmental Law and Policy*, 21(1), pp.79-139.

Gillespie, A. (2001b) *The Illusion of Progress: Unsustainable Development in International Law and Policy*. Earthscan, London.

ICJ (1974a) Nuclear Tests (Australia v. France), Judgment of 20 December 1974, *ICJ Reports 1974*, p.268, para. 46.

ICJ (1974b) Nuclear Tests Case (NZ v France). ICJ 1974. December 20. General List Number 59.

ICJ (1995) Request for an Examination of the Situation in Accordance with Paragraph 63 of the 1974 ICJ Judgment of NZ v. France. ICJ 1995. September 22. General List No. 97.

ICJ (1996) Legality Of The Threat Or Use Of Nuclear Weapons. 8 July General List No. 95. para 98.

ICJ (1997) Case Concerning The Gabcíkovo-Nagymaros Project. 25 September (Hungary/ Slovakia) ICJ 1997. 25 September. General List No. 92

ICJ (1996) Legality of the Threat or Use of Nuclear Weapons. 8. July General List No.95, para. 29.

IEA (2000a) Decision 11/CP.4. National communications from Parties included in Annex I to the Convention. COP 4 (1998). Buenos Aires. FCCC/CP/1998/16/Add.1. 20 January 1999. 47. Paragraph 10 (b).

IEA (2000b) *International Energy Outlook 2000*. IEA, Washington.

Independent World Commission on the Oceans (1998) *The Ocean: Our Future*. Cambridge University Press, Cambridge.

IPCC (1995) *Climate Change 1994: Radiative Forcing of Climate Change*. Cambridge University Press, Cambridge.

IPCC (1996a) *Climate Change 1995: Economic and Social Dimensions*. Cambridge University Press, Cambridge.

IPCC (1996b) *Climate Change 1995: Impacts, Adaptations and Mitigation*. Cambridge University Press, Cambridge.

IPCC (1998) *The Regional Impacts of Climate Change: An Assessment of Vulnerability*. Cambridge University Press, Cambridge.

IPCC (2000) *Emission Scenarios*. Cambridge University Press, Cambridge.

IPCC (2001a) *Climate Change 2001: The Scientific Basis*. Cambridge University Press, Cambridge.

IPCC (2001b) *Climate Change 2001: Impacts, Adaptation and Vulnerability*. Cambridge University Press, Cambridge.

IPCC (2001c) Third Assessment Report: Summary for Policy Makers. Geneva, IPCC.

IPCC (2003) *Climate Change and Biodiversity*. IPCC Technical Paper V, Geneva.

MacKenzie, D. (1990) 'Communication Gaps Undermine Reports on Global Warming', *New Scientist*, June 23, p.5.

MacKenzie, D. (1994) 'No Advance In Sight On Greenhouse Treaty', *New Scientist*, September 10, p.6.

Montreal Protocol on substances that deplete the ozone layer. 19 International Legal Materials (1987) p.111. Article 2 & Annex A.

New Scientist (1990) 'Growing Greenhouse', *New Scientist*, March 3, p.10.

New Scientist (1989) 'Toodleloo Tuvalu', *New Scientist*, March 25, p.22.

New Scientist (1992) 'Don't Let Us Drown, Islanders Tell Bush', *New Scientist*, June 13, p.6.

New Scientist (1995) 'Hot Air In Berlin', *New Scientist*, March 25, p.3.

New Scientist (2001) 'Sea For Yourself', *New Scientist*, Apr 21, p.23.

New Scientist (2002a) 'Hotting Up', *New Scientist*, March 30, p.15.

New Scientist (2002b) 'Heat Seeking Fish Holiday in Cornwall', *New Scientist*, May 18, p.25.

The Non-Proliferation Treaty on Weapons of Mass Destruction (1968). Article IV.

Oberthur, S. (1995) 'The First Conference of the Parties', *Environmental Policy and the Law*. 25(4), p.144.

Pearce, F. (1988) 'Time For Politicians To Act', *New Scientist*, Oct 15, p.21.

Pearce, F. (1992) 'Yields Tumble In Greenhouse World', *New Scientist*, Apr. 18, p.4.

Pearce, F. (1997) 'Countdown to Chaos,' *New Scientist*. Nov 29. p.22.

Pearce, F. (1999a) 'All Bets Are Off', *New Scientist*, Sep 18, p.5.

Pearce, F. (1999b) 'US Gives Kyoto The Cold Shoulder', *New Scientist*, Nov 13, p.12.

Pearce, F. (2000a) 'Turning Back the Tide', *New Scientist*, Feb 12, pp.44–6.

Pearce, F. (2000b) 'Washed Off the Map', *New Scientist*, Nov 25, p.5.

Pearce, F. (2002a) 'Its Started', *New Scientist*, March 30, p.11.

Pearce, F. (2002b) 'Grief on the Reef', *New Scientist*, Apr 20, p.11.

Pearce, F. (2002c) 'Insurers Count the Cost', *New Scientist*, July 27, p.7.

Pearce, F. (2002d) 'Europe's Wake Up Call', *New Scientist*, Aug 24, p.4.

Pearce, F. (2002e) 'Its Started', *New Scientist*, March 30, p.11.

Reddy, A. (1990) 'Energy For the Developing World', Scientific American, September, pp.63, 69.

Report of the Conference Of the Parties, UNFCCC, Berlin, 1995. FCCC/CP/1995/7. 24 May 1995. Part One, Proceedings. Paragraph 57 & 58.

UN, Report of the Global Conference on the Sustainable Development of Small Island Developing States. A/CONF.167/9. October, 1994. Annex I, Section III.

Schrope, M. (2000) 'Corals Face Catastrophe', *New Scientist*, May 27, p.8.

Schrope, M. (2002) 'Global Warming, Global Fever', *New Scientist*, June 29, p.22.

Simon, P. (1992) 'Why Global Warming Could Take Britain By Storm', *New Scientist*, Nov 7, pp.35–7.

Smil, V. (1994) 'China's Greenhouse Gas Emissions', *Global Environmental Change*, 4(5), pp. 325–32.

South Pacific Forum (1988) Fiji Communique. Ministry of Foreign Affairs, Wellington, New Zealand Paragraph 32.

South Pacific Forum (1989) Kiribati. Communique. Ministry of Foreign Affairs, Wellington, New Zealand Paragraph 20.

South Pacific Forum (1990) Vanuatu. Communique. Ministry of Foreign Affairs, Wellington, New Zealand Paragraph 6 & 7.

Stockholm Declaration on the Human Environment (1972)

Tangen, K. (1999) 'The Climate Change Negotiations: Buenos Aires and Beyond', *Global Environmental Change*, 9, pp.175–8.

Thirty Third Pacific Island Forum (2002) (Fiji, August 2002). PIFS (02) 8. Paragraph 24 & 25. South Pacific Regional Environment Programme (SPREP), Samoa.

UN GCSDSIDS (1994) Report of the Global Conference on the Sustainable Development of Small Island Developing States. A/CONF.167/9. October, 1994. Annex I, Section III

UNDP, UNEP, World Bank, WRI (2000) *World Resources 2000-2001*. Oxford University Press, Oxford.

UNFCCC COP (1992) United Nations Framework Convention on Climate Change. United Nations Conference on Environment and Development A/AC.237/18. May 15. 1982

Wells, S. (1989) 'Gone With The Waves', *New Scientist*, Nov 11, p.29.

WRI, UNDP and World Bank (1999) *World Resources 1998-1999*. Oxford University Press, Oxford.

WSSD (2002a) Plan of Implementation for the 2002 World Summit on Sustainable Development. Johannesburg.

WSSD (2002b) *The Johannesburg Declaration on Sustainable Development*. 2002. A/CONF 199/20.WSSD/ September 4 2002.