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ADDRESSING CLIMATE CHANGE THROUGH SUSTAINABLE DEVELOPMENT AND THE PROMOTION OF HUMAN RIGHTS

Margreet Wewerinke and Vicente Paolo Yu III



RESEARCH PAPERS

34

ADDRESSING CLIMATE CHANGE THROUGH SUSTAINABLE DEVELOPMENT AND THE PROMOTION OF HUMAN RIGHTS

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SOUTH CENTRE

NOVEMBER 2010

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ABBREVIATIONS

CESCR	Committee on Economic, Social and Cultural Rights
COP	Conference of the Parties
EITs	Economies in transition
ESTs	Environmentally sound technologies
EGTT	Expert Group on Technology Transfer
GHGs	Greenhouse gases
GDP	Gross Domestic Product
GNI	Gross National Income
INC	Intergovernmental Negotiating Committee
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
ILC	International Law Commission
LDCs	Least Developed Countries
OHCHR	Office of the UN High Commissioner for Human Rights
ODA	Official Development Assistance
SIDS	Small Island Developing States
SBI	Subsidiary Body on Implementation
SBSTA	Subsidiary Body on Scientific and Technological Advice
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention for Climate Change

EXECUTIVE SUMMARY

Climate change poses a risk to the human rights of millions of people--such as their rights to life, health, food and water. The risks are highest in developing countries, where extreme weather events, crop failures and other emergencies related to climate change are projected to occur with greater frequency. Most developing countries also lack the necessary technological and financial resources to adapt to climate change. Indeed they are already facing increased difficulties in realizing the economic, social and cultural rights of their people due to the financial, economic and food crises and growing populations. The capacity of developing countries to realize human rights domestically is further limited as a result of the over-use by developed countries of the global atmospheric space and the global carbon budget.

This paper sets out the relevance of international human rights obligations in light of the multiple constraints climate change poses to the sustainable development of developing countries. These legally binding obligations have been agreed upon by states since the creation of the United Nations and are incorporated in widely ratified human rights treaties. Legal human rights obligations specifically require states to act to protect peoples and individuals from violations of their human rights and for states to cooperate to this end. Climate change will impact a wide range of these human rights and could potentially lead to their serious and widespread violation.

Preventing climate change-induced human rights violations requires intensive international cooperation. In particular, it requires that inequities between developed and developing countries and their peoples are addressed in accordance with the legal principle of affirmative action. This principle, which is incorporated in international human rights law, is an expression of an exception to the general principle that all states are sovereign equals, which means that generally all states have the same legal obligations. It provides that a state may have to treat right holders differently, if by treating right holders similarly when they are in unequal positions, inequalities are maintained. This paper demonstrates that the framework provided by the United Nations Framework Convention on Climate Change (UNFCCC) is particularly suitable to facilitate rights-based cooperation in accordance with the principle of affirmative action and the legal duty of all states to cooperate to realize human rights.

The UNFCCC framework, including the UNFCCC and the Kyoto Protocol, is premised on legal principles that run parallel to, and reinforce, international human rights obligations. The framework balances concerns for the development needs of developing countries with the responsibilities and obligations of all countries to address climate change and thus mitigate human rights harm. Of particular importance are the principles of equity and common but differentiated responsibilities and respective capabilities of developed and developing countries. In accordance with these principles, developed countries have specific obligations to mitigate their emissions in order to modify the longer-term trends in global emissions and provide financing and technology transfer to developing countries for adaptation and sustainable development.

An assessment of developed countries' compliance with their UNFCCC obligations reveals a persistent compliance gap. It has proven difficult to address this gap through legal mechanisms, most notably because the UNFCCC lacks an enforcement mechanism. In this

regards, the inherent legal basis of internationally agreed human rights norms deserves special attention. As legally binding international norms, human rights are rules that have been reaffirmed continuously by more than two-thirds of the international community of just under two hundred states, most of which are also Parties to the UNFCCC. Human rights also lay at the basis of the concept of *erga omnes*, obligations that are “owed towards the entire world and all its inhabitants.”

As the failure of developed countries to comply with their UNFCCC obligations may result in widespread human rights violations, developing countries may turn to international tribunals to address this failure. In other words, international tribunals could be requested to clarify the legal obligations of states under international human rights law in relation to climate change and climate change legislation. This opportunity for encouraging timely and adequate action on climate change will become all the more viable if non-compliance with these *de minimum* norms continues and economic and ecological inequities between developed and developing countries increase even further as a result.

I INTRODUCTION

It is well accepted that climate change is caused by human beings. The Intergovernmental Panel on Climate Change (IPCC) has confirmed in several reports climate change is man-made and caused by the excessive emission of greenhouse gases (GHGs) since industrialization.¹ One hundred and ninety four (194) states have agreed with this assessment in ratifying the United Nations Framework Convention for Climate Change (UNFCCC)² in which a legal definition of climate change is found in Article 1 that states “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.”³

International law not only recognizes that there is evidence that climate change is caused by human beings, but generally that human beings or countries have been the greatest contributors to climate change. Historically, developed countries – as a result of their industrialization process and its associated production and consumption patterns – have accounted for around three-fourths of total anthropogenic emissions of greenhouse gases into the atmosphere since the start of the Industrial Revolution (i.e. from around 1850 to the present). Developing countries – despite their larger populations but as a result of their lower industrialization levels – have contributed much less to such anthropogenic emissions. Currently, with just 15 per cent of the world population, developed countries account for 45 per cent of CO₂ emissions.⁴ By 2030, “developing countries are projected to account for just over half of total emissions” from less than half in 2004,⁵ largely as a result of increasing populations and economic growth.⁶ Notably, per capita emissions in developed countries (with a population of approximately 1.2 billion) is almost four times higher (at 16.1 tons of CO₂ equivalent) than in developing countries (with a population of approximately 5.6 billion and per capita emissions of 4.2 tons of CO₂ equivalent).

In the Preamble of the UNFCCC Parties recognize that “the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions in developing countries will grow to meet their social and development needs.”⁷

The IPCC projects that “with current climate change mitigation policies and related sustainable development practices, global GHG emissions will continue to grow over the next

¹ See for example the IPCC’s Fourth Assessment Report at www.ipcc.ch.

² United Nations Framework Convention on Climate Change Article 1(2), May 1992, S. Treaty Doc. No. 102-38, 1771 UNTS 107 [hereinafter UNFCCC].

³ Ibid.

⁴ United Nations Development Programme (UNDP), *Human Development Report 2005* (2005) [hereinafter HDR 2005], p. 42.

⁵ Ibid.

⁶ See UNDESA – Population Division, *World Population Prospects: The 2008 Revision*, at <http://esa.un.org/unpp/p2k0data.asp>, projecting developing country population growth from 5.67 billion in 2010 to 7.03 billion in 2030.

⁷ UNFCCC, Preamble.

few decades”⁸ and that “continued GHG emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century that would very likely be larger than those observed during the 20th century.”⁹ Near-terms projections suggest that “a warming of about 0.2° C per decade” will occur.¹⁰

Unless current rates of greenhouse gas (GHG) emissions are drastically cut and reversed, global average temperatures will rise by at least 2° C by 2050, according to the IPCC. This will result in, among others, the creation of hundreds of millions of environmental refugees mostly from developing countries, acute water shortages of large proportions of the global population (again mostly in developing countries), food shortages as agricultural production goes down all over the world, sea level rise of at least 1 meter¹¹, and the extinction of a third of the world’s species. Even before that, the expected 1° C rise by 2020 and the 1.3° C rise by 2025 will already have devastating impacts on the lives and livelihood of people, especially the poor and especially in developing countries.

In terms of regional impacts of climate change, following are some examples of major projected impacts:

- Africa, where most LDCs are located, is projected to be hard hit by increased water-related stresses such as droughts which could reduce yields from rain-fed agriculture by 50%. This could severely compromise food production and security. Projected sea level rise is likely to affect low lying coastal areas with large populations (such as Alexandria, Egypt; Lagos, Nigeria; Abidjan, Cote d’Ivoire¹²).¹³
- Likewise, most parts of developing Asia will likely see decreased freshwater availability, and coastal areas with large populations are likely to face increased floodings from sea surges or rivers (such cities as Kolkata and Mumbai, India; Dhaka, Khulna, and Chittagong, Bangladesh; Guanzhou, Shanghai, Tianjin and Ningbo, China; Ho Chi Minh City and Hai Phong, Vietnam; Jakarta, Indonesia; Bangkok, Thailand; and Yangon, Myanmar¹⁴).¹⁵
- In Latin America, projections are that the Amazonia will start drying out by mid-century, turning from tropical forest to savanna. Agricultural productivity is projected to decrease, and water availability could also be significantly affected.¹⁶
- SIDS are expected to be most adversely affected by sea level rise exacerbating inundation, storm surge, erosion and other coastal hazards, “thus threatening vital

⁸ Intergovernmental Panel on Climate Change (IPCC), *Fourth Assessment Report: Climate Change 2007 (Synthesis Report)*, adopted at IPCC Plenary XXVII, Valencia, Spain, 12-17 November 2007, at IPCC 4AR Synthesis Report [hereinafter IPCC 4AR Synthesis Report], p. 44.

⁹ Ibid., p. 45.

¹⁰ Ibid.

¹¹ According to the World Bank, “the impact of sea level rise from global warming could be catastrophic for many developing countries – the World Bank estimates that even a one meter rise would turn at least 56 million people in the developing world into environmental refugees.” See World Bank, “The Impact of Sea Level Rise on Developing Countries: A Comparative Analysis” (WPS4136, February 2007), at <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:21215328~pagePK:64165401~piPK:64165026~theSitePK:469382,00.html>.

¹² For a ranking of world cities most exposed to coastal flooding arising from climate change, see e.g. R.J. Nicholls et al., “Ranking of the World’s Cities Most Exposed to Coastal Flooding Today and in the Future – Executive Summary” (OECD, 2007)[hereafter Nicholls].

¹³ IPCC 4AR Synthesis Report, p. 50.

¹⁴ Nicholls, p. 3.

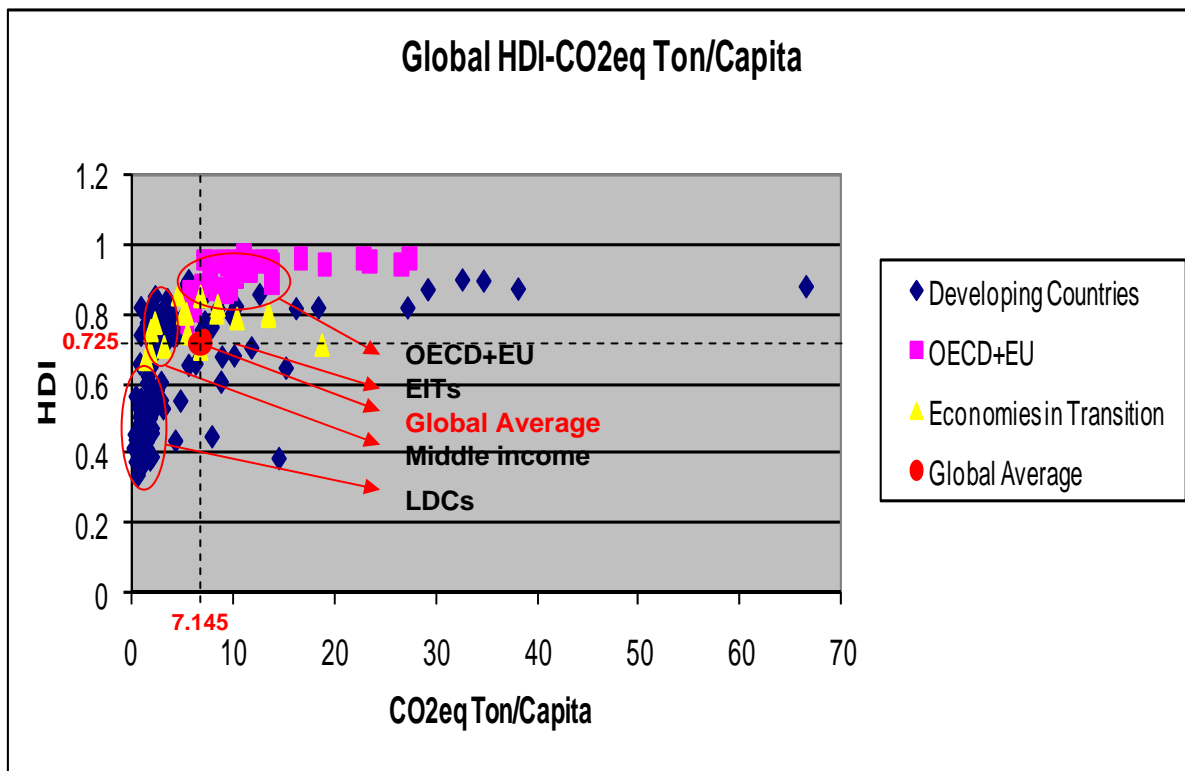
¹⁵ IPCC 4AR Synthesis Report, p. 50.

¹⁶ Ibid.

infrastructure, settlements and facilities that support the livelihood of island communities.” Availability of coastal resources (such as fisheries) is projected to be adversely affected due to, inter alia, beach erosion and coral bleaching. Water availability in many small islands in the Caribbean and the Pacific is expected to become insufficient to meet demand during low-rainfall periods by mid-century.¹⁷

The human and financial costs to countries of coping with extreme weather events, crop failures and other emergencies related to climate are growing and will continue to grow higher. Developing countries, especially Least Developed Countries (LDCs) and Small Island Developing States (SIDS), who are already facing difficulties in alleviating poverty as a result of their economic situation, are particularly vulnerable to the adverse effects of climate change because they “have fewer resources to adapt: socially, technologically and financially.”¹⁸

There has historically been a close correlation between greenhouse gas emissions and development progress. This correlation may change as a result of technological shifts. However, it remains true that the over-use by developed countries of the global atmospheric space and the global carbon budget, with the adverse climate impacts that such over-use is now bringing forth, is in effect the carbon basis for their industrialization while at the same time effectively shrinking the development space of developing countries. This can be clearly seen in the following figure, where high levels of human development (as reflected in the Human Development Index of the United Nations Development Programme (UNDP)) are generally correlated to high levels of per capita GHG emissions and vice-versa.



Source: South Centre calculations based on UNDP data for HDI (<http://www.undp.org>) and WRI-CAIT for GHG emissions data (<http://cait.wri.org>)

¹⁷ Ibid.

¹⁸ UNFCCC, *Climate Change: Impacts, Vulnerability and Adaptation in Developing Countries* (2007), p. 6.

This correlation is one reason why developing countries have tended to view climate change through a ‘development lens.’ This approach also recognizes that there is an increasing development gap between the developed and developing countries (as measured in terms of income inequality). While income levels rose steadily in developed countries over the past half-century, most developing countries have not seen the same steady increase in income levels especially over the past twenty-five years.¹⁹ China and some other parts of Asia aside, the figure above shows that global income inequality has increased from 1950 to 2001 – with African, Latin American, and Eastern European Gross Domestic Product (GDP) per capita actually falling relative to developed country per capita GDP.²⁰ This gap between developed and developing countries will widen further due to climate change if no countermeasures are being taken.

The need for developing countries to ensure sufficient economic and social development and growth patterns in order to fill the development gap must hence be fully recognized. This need is amplified by growing populations in developing countries. Developing countries’ populations are estimated by the United Nations to grow by almost half by 2050 (from around 5.3 billion in 2005 to 7.9 billion in 2050²¹). This means, unavoidably, that developing countries’ GHG emissions will also need to grow if they are to secure adequate economic and social development.²² With a limited global carbon budget, developed countries (whose populations will remain stable up to 2050 at around 1.25 billion) will need to make even deeper emissions reductions to be able to provide developing countries with the additional emissions budgets. However, at the same time, the growth of emissions in developing countries could be lowered if their economic development could be generated using low carbon technologies, which will require developed countries, consistent with the UNFCCC, to provide greatly increased flows of financing to acquire such technology and undertake actual transfers of such low carbon technology to developing countries.

Developed countries have consumed and continue to consume more than their fair share of the global atmospheric space (with respect to greenhouse gas concentrations in the atmosphere) relative to their share of the global population. This leaves developing countries at a disadvantage – both in economic and atmospheric terms – as their populations grow (while the populations of developed countries generally remain stable) and consequently, their need to improve and increase economic productivity also grows.

The impacts of climate change will have far reaching effects on the sustainable development of developing countries including the attainment of the Millennium Development Goals and other internationally agreed development goals by 2015. These impacts compound the major development challenges that continue to exist, and addressing these continues to be the overriding priority of developing countries. On 2000 to 2005 growth trends, the UNDP in 2005 suggested that “it will still take India until 2106 to catch up with high-income countries. For other countries and regions convergence prospects are even more limited. Were high-income countries to stop growing today and Latin America and Sub-Saharan Africa to continue on their current growth trajectories, it would take Latin America until 2177 and

¹⁹ United Nations Department of Economic and Social Affairs (UN DESA), *World Economic and Social Survey 2006: Diverging Growth and Development* (2006), p. 1 [hereafter WESS 2006].

²⁰ Ibid.

²¹ See <http://esa.un.org/unpp/p2k0data.asp>.

²² This need is recognized and reflected in the third paragraph of the Preamble as well as in the framework of commitments in the UNFCCC itself which does not require any specific mitigation obligations on the part of developing countries.

Africa until 2236 to catch up.”²³ Other than for the fast-growing Asian developing countries, most other developing countries are falling behind, rather than catching up, with developed countries in terms of income growth, with Africa’s share of the income poor projected to increase by 2015.²⁴

With the current global financial and economic crisis, developing countries are likely to be even farther from achieving their development objectives. This crisis was triggered by widespread speculative lending and investment in major international financial centres in developed countries, encouraged by regulatory flaws and failures in these countries. However, the economic and financial impacts of the crisis are hitting developing countries more sharply and severely than developed countries “through capital reversals, rising borrowing costs, collapsing world trade and commodity prices, and subsiding remittance flows.”²⁵ As the United Nations states:

Growth in world gross product (WGP) is expected to slow to 1.0 per cent in 2009, a sharp deceleration from the rate of 2.5 per cent estimated for 2008 and well below the more robust pace in previous years. While most developed economies are expected to be in a deep recession, a vast majority of developing countries is experiencing a sharp reversal in the robust growth registered in the period of 2002-2007, indicating a significant setback in the progress made in poverty reduction for many developing countries over the past few years. The prospects for the Least Developed Countries (LDCs), which did so well on average over the past years, are also deteriorating rapidly.²⁶

Poverty in developing countries as a result of the economic crisis is expected to rise, further exacerbating the poverty-inducing impacts that the adverse effects of climate change may have on developing countries.

Hence, for developing countries, by and large, achieving sustainable development remains the primary and overriding national policy objective to which all other policymaking should contribute. This is also the reason why, in the climate change negotiations, developing countries have been insisting on ensuring that any agreed outcomes be balanced and reflect the essential development concerns and interests of developing countries – not only in order to reflect the treaty foundations of these processes but also to ensure that there is no intended or unintended foreclosure of the sustainable development prospects of developing countries as a result of such negotiations.

Sustainable economic development – that is, a development pathway that provides adequate economic opportunities and a decent quality of life in a manner that is equitable and environmentally sustainable – is needed. The poor in developing countries simply cannot afford to see development in their countries be constrained by climate change. Development is also urgently needed in order to minimize and mitigate climate change risks by improving developing countries’ adaptive capacity. Furthermore, developing countries would be in a better position to participate in global efforts to address climate change if the basic economic needs of their populations are already met. Sustainable development as the overriding priority of developing countries must be placed at the heart of the global climate change discourse.

²³ United Nations Development, *Human Development Report (2005)*, p. 37.

²⁴ Ibid. See also World Bank, *Global Economic Prospects 2007*, p. 42, where the World Bank projects that “[t]here would be a further falling behind in Sub-Saharan Africa with its modest per capita growth below the high-income average, and Latin America would see little if any convergence on average.”

²⁵ UN DESA, *World Economic Situation and Prospects 2009: Update as of mid-2009*, p. 1.

²⁶ UNDESA. Available from <http://www.un.org/esa/policy/wess/wesp.html>.

II THE INTERNATIONAL LAW FRAMEWORK FOR GLOBAL ACTION TO ADDRESS CLIMATE CHANGE

In this section we demonstrate that international human rights law and the UNFCCC framework provide parallel legal obligations that are mutually reinforcing. We also outline how these legal obligations provide a sufficient legal basis for state responsibility for actions that contribute to the adverse effects of climate change. We pay particular attention to those obligations of international human rights law that relate to sustainable development.

A. The UN Framework Convention on Climate Change

There is currently only one single universally legally-binding treaty governing international action to address climate change. This is the UN Framework Convention on Climate Change (including its Kyoto Protocol). The UNFCCC contains principles that balance concerns for the development needs of developing countries with the responsibilities and obligations that all countries have to address climate change. Achieving this balance was not an easy task.

The negotiations in the Intergovernmental Negotiating Committee (INC)²⁷ that eventually resulted in the UNFCCC lasted five sessions between February 1991 and May 1992. More than 150 States participated. They discussed the need for a binding commitment to and the setting of measurable objectives and timelines for greenhouse gas reductions by developed countries, establishing a financial mechanism for climate action, ensuring technology transfer from developed to developing countries, and defining different levels of responsibilities among developed and developing countries to meet the climate change challenge. The negotiations were based on an increasingly apparent need for international cooperation to take effective action to adapt to and mitigate the effects of climate change. Negotiations on these topics, and other issues, eventually resulted in a multilateral treaty, the UNFCCC, which was adopted and opened for signature in May 1992. It entered into force on 21 March 1994²⁸ with more States Parties than almost any other existing treaty, including the Charter of the United Nations.

The UNFCCC erects an architecture with the following core features:

- the requirement that decision making be based on a strong foundation of the science of climate change;
- the requirement of that equity be a guiding principle of decision making and the apportionment of responsibility for acting on climate change that stresses:
 - recognition and allocation of both historical and current responsibility for anthropogenic greenhouse gas emissions;

²⁷ The mandate for the INC was established by the UN General Assembly pursuant to its Resolution No. A/RES/45/212 of 21 December 1990.

²⁸ Aware that the UNFCCC's provisions may not in themselves be sufficient to tackle climate change, UNFCCC Parties in the mid-1990s set out to establish firmer and more detailed commitments for developed countries in terms of binding greenhouse gas (GHG) emissions reduction, resulting in 1997 in the adoption of the Kyoto Protocol at the 3rd Conference of the UNFCCC Parties in Kyoto, Japan. It sets out basic rules for binding GHG emissions reductions for developed countries and has provisions intended to assist developing countries in voluntarily reducing their own GHG emissions. The Kyoto Protocol entered into force on 16 February 2005.

- understanding of the relationship between greenhouse gas emissions and economic development, especially insofar as developing countries are concerned;
- obligations relating to the mitigation of greenhouse gas emissions, the provision of financing, technology transfer, and cooperation among countries that are based on common but differentiated responsibilities and developed countries' respective capabilities;
- a linking of developing countries' obligations to developed countries fulfillment of their obligations to provide financing and technology to developing countries; and
- mechanisms for measurement, reporting and verification of actions.

The principles of equity and common but differentiated responsibilities are elaborated in two sets of commitments contained in Articles 4.1 and 4.2, 5, 6, 10, and 12 that provide for:

- common commitments to provide and communicate climate change-related information;²⁹ adopt and implement mitigation and adaptation measures;³⁰ cooperate in technology transfer, adaptation, "climate-proofing" economic, social and environmental policies and actions, research and observation, information exchange, education, training and public awareness;³¹ consider and take into account the needs and concerns of developing country Parties;³² and communicate information regarding the Party's implementation of the UNFCCC;³³ and
- differentiated commitments (in addition to the common commitments above) applicable specifically for developed country Parties relating to mitigation;³⁴ communication of information regarding such mitigation;³⁵ financing for developing countries' national communications and the implementation by developing countries of their UNFCCC commitments;³⁶ meeting the costs of adaptation of developing countries;³⁷ and technology transfer to developing countries (including supporting the development in developing countries of endogenous technologies and technological capacity);³⁸

The mutually dependent nature of these commitments is stated in Article 4.7 of the UNFCCC, as follows:

[t]he extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.

²⁹ UNFCCC Article 4.1(a).

³⁰ UNFCCC Article 4.1(b).

³¹ UNFCCC Article 4.1(c) to (i), 5 and 6.

³² UNFCCC Article 4.8 to 4.10.

³³ UNFCCC Article 4.1(j) and 12.1.

³⁴ UNFCCC Article 4.2(a) and (b).

³⁵ UNFCCC Article 4.2(b).

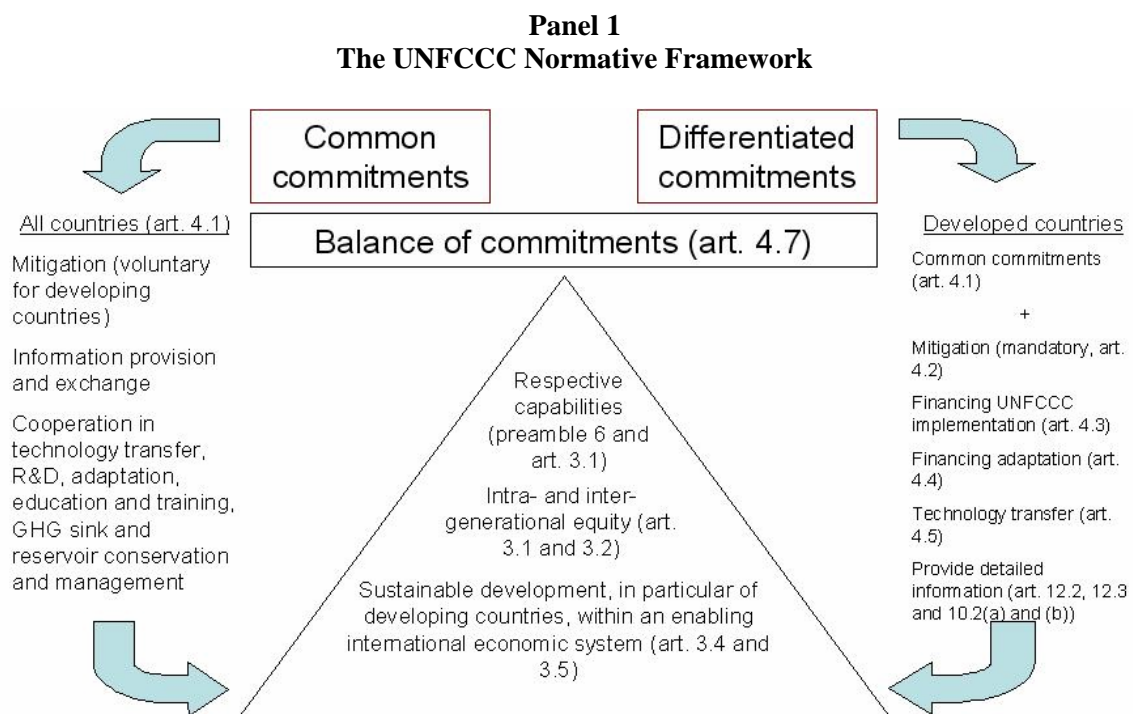
³⁶ UNFCCC Article 4.3.

³⁷ UNFCCC Article 4.4.

³⁸ UNFCCC Article 4.5.

Article 4.7 means that it is the extent of implementation by developed countries of their commitments under Articles 4.3, 4.4 and 4.5 that determines the extent to which developing countries must implement their obligations under Article 4.1 and Article 12.1.

In other words, as Panel 1 illustrates in the absence of the effective implementation by developed countries of their commitments the corresponding commitments by developing under the UNFCCC cannot be expected to be full nor effective.



The problem of climate change is most pressing for the estimated as many as three billion most vulnerable people in world whose well-being is threatened. To achieve the action necessary to assist these people it is necessary to view the international climate change regime in its wider context. Two of the most important aspects of the wider context are human rights and development. We shall see that these aspects are closely related in international law.

B. International Human Rights Law³⁹

1. Human Rights and Climate Change – Recent Initiatives

Turning to human rights is not a novel idea. Already in 2007, in a first attempt to link human rights and climate change explicitly in an international agreement, several Small Island Developing States convened a conference on the human impacts of climate change. The Small Island Conference resulted in the adoption of an outcome document that outlined the “clear

³⁹ This section draws heavily on an article (forthcoming) by Wewerinke, M. and Doebbler, C., “The Added Value of the Human Rights Approach to Climate Change” (2010).

and immediate implications” of climate change on human rights.⁴⁰ Several months later the United Nations Human Rights Council addressed the link between climate change and human rights in a specific resolution.⁴¹ This resolution determined that climate change “poses an immediate and far-reaching threat to people and communities around the world” and requested the Office of the United Nations High Commissioner for Human Rights (OHCHR) to undertake “a detailed analytical study of the relationship between climate change and human rights.”⁴²

The OHCHR had been engaged in considering the human rights consequences of climate change at least since 2007.⁴³ It replied by the request of the Council by submitting in a timely manner its thirty-two page report to the Council’s tenth Regular Session.⁴⁴ However, the report concludes that “[t]he physical impacts of global warming cannot easily be classified as human rights violations, not least because climate change-related harm often cannot clearly be attributed to acts or omissions of specific States.” This conclusion is disputable. In the introduction we already noted that science demonstrates that the developed countries are responsible for around three quarters of the emissions that are the main cause of the climate change impacts that are being experienced today and will be experienced in the near-term future. Such evidence arguably makes it possible to attribute climate change to acts or omissions of States – for example a State’s failure to continue to refuse to regulate GHG emissions. In spite of its conservative findings, however, the report did pave the way for a second resolution, adopted by the Council in March 2009 in which it recognized that

... climate change-related impacts have a range of implications, both direct and indirect, for the effective enjoyment of human rights including, inter alia, the right to life, the right to adequate food, the right to the highest attainable standard of health, the right to adequate housing, the right to self-determination and human rights obligations related to access to safe drinking water and sanitation⁴⁵

In the resolution, the Council also recognized that “human beings are at the centre of concerns for sustainable development and that the right to development must be fulfilled so as to meet equitably the development and environmental needs of present and future generations.”⁴⁶ However, the resolution does not address the historic responsibility of developed countries for the human rights impacts of climate change. The resolution does also not incorporate what may be the most innovative contribution of the OHCHR report, namely its conclusion that international cooperation is an obligation under human rights law.⁴⁷ Instead, it affirms that “human rights obligations and commitments have the potential to

⁴⁰ Small Island Conference, Malé, Maldives, 13-14 November 2007, Malé Declaration on the Human Dimension of Global Climate Change, at 2 (14 November 2007).

⁴¹ UN HRC Res. 7/23 (28 March 2008), reprinted in UN Human Rights Council, *Report of the Human Rights Council on Its Seventh Session*, 65-66, UN Doc. A/HRC/7/78 (14 July 2008).

⁴² Ibid.

⁴³ See, for example, address by Ms. Kyung-wha Kang, Deputy High Commissioner for Human Rights to the Conference of the Parties to the United Nations Framework Convention on Climate Change and its Kyoto Protocol held in Bali, Indonesia from 3-14 December 2007.

⁴⁴ United Nations Report of the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and human rights (Report of OHCHR), UN Doc. A/HRC/10/61 (15 January 2009), para. 96.

⁴⁵ UN HRC Res. 10/4 (25 March 2009), reprinted in UN Human Rights Council, *Report of the Human Rights Council on Its Tenth Session*, 14, UN Doc. A/HRC/10/L.11 (12 May 2009) [hereinafter UN HRC Res. 10/4].

⁴⁶ Ibid.

⁴⁷ John H. Knox, “Linking Human Rights and Climate Change at the United Nations,” 33(1) *Harvard Environmental Law Review* 477, 496 (2009)..

inform and strengthen international and national policy-making in the area of climate change, promoting policy coherence, legitimacy and sustainable outcomes.”⁴⁸

This rather vague language is no coincidence. Indeed, in the negotiations on the resolution, developed countries were at pains to avoid the suggestion that legal obligations to fulfill human rights reach beyond the obligations of national governments towards their own citizens.⁴⁹ This position was again visible when the Council held a panel discussion on the relationship between climate change and human rights during its eleventh Regular Session.⁵⁰

As we shall discuss below, the human rights approach to climate change builds on legally binding obligations that states have already undertaken and as such does not depend on resolutions adopted by the Human Rights Council. Nevertheless the Human Rights Council and its mechanisms can play an important role in clarifying the legal obligations that are relevant to climate change. In this regard, it is interesting to note that the 2010 Social Forum, a special mechanism of the Human Rights Council, has been expressly mandated to consider how climate change affects human rights.⁵¹

Several other international and regional human rights bodies have also addressed climate change. For example, the Committee on the Elimination of Discrimination against Women adopted a Statement on Gender and Climate Change⁵² and the plenary parent body of the Inter-America Commission for Human Rights, the General Assembly of the Organization of American States also adopted a resolution on Human Rights and Climate Change in the Americas in 2008.⁵³ None of these forums have sufficiently recognized the role of existing international legal obligations for ensuring human rights as requiring action on climate change to protect peoples’ and individuals’ human rights.

From a legal perspective, the failure to utilize human rights to the full extent possible for dealing with the adverse impacts of climate change is largely due to the failure to apply this approach in conjunction with the duty to cooperate and the right to development, which resonate with states’ legal obligations under the UNFCCC. This comprehensive understanding of the human rights approach to climate change is taken below.

⁴⁸ See UN HRC Res. 10/4.

⁴⁹ See Marc Limon, “Human Rights and Climate Change: Constructing a Case for Political Action,” 33(1) *Harvard Environmental Law Review* 439, 476 (2009), p. 455.

⁵⁰ The panel discussion was held on 15 June 2009 at the Palais des Nations, in Geneva, Switzerland from 15:00 to 18:00 hours. The webcast of the panel discussion is available at <http://www.un.org>.

⁵¹ UN HRC Res. 13/16, UN Doc. A/HRC/13/L.16 (18 March 2010).

⁵² United Nations Convention on the Elimination of All Forms of Discrimination Against Women (UN CEDAW), Statement of the CEDAW Committee on Gender and Climate Change, adopted at the 44th Sess., held in New York, USA, from 20 July to 7 August 2009.

⁵³ General Assembly of the Organization of American States, OAS Doc. AG/RES. 2429 (XXXVIII-O/08), adopted at the 4th plenary session, held on 3 June 2008.

2. Human Rights and Climate Change – The Normative Linkage

a. Human Rights Providing Parallel Legal Obligations

International human rights law is of significance for states dealing with climate change for several reasons. It provides relevant legal obligations that serve as a basis for state responsibility because they have been defined in treaties or by the consensus of states as obligations which when violated give rise to specific legal consequences. As such, international human rights law strengthens the legal framework of the UNFCCC by providing parallel legal obligations. International human rights law also provides, together with principles of general public international law, for a duty of cooperation between states. Finally and perhaps most significantly, international human rights law provides forums for interpreting states obligations and applying them to specific situations. This may include interpreting the general duty to prevent or compensate for harm.

The general importance of legal obligations – whether derived from international human rights law or from the law on climate change - emanates from their character as 'legally' binding on all states to whom they apply. This means that at the very least a state that fails to abide by its international legal obligations or commits an international wrongful act can be labeled a 'pariah state', a '*hostis humanitis generis*', or a 'threat' to the international community. And at best concrete legal consequences will be incurred by the state acting wrongfully that can range from compensation to injured states to the right of other states to action being taken against the recalcitrant state. In other words, a violation of a legal obligation is not without consequences.⁵⁴

The added value of legal human rights obligations is especially strong because these obligations relate to the fundamental human rights of all individuals. Human rights, as the 1992 Vienna Declaration and Programme of Action on Human Rights points out, are universal, interrelated, indivisible and inalienable.⁵⁵ When such widespread consensus has been reached on issues so close to the human experience of every human being, it is hard for any state or group of states to ignore this consensus. No state wants to be labeled a gross violator of human rights or even as not having a significant concern for the human rights of the people under its jurisdiction.⁵⁶

The precise obligations that may give rise to state responsibility are spelled out in treaties and have been elaborated and confirmed in both national and international jurisprudence. This has allowed international human rights standards to be applied universally and with some degree of consistency.

⁵⁴ See, for example, Draft Articles on the Responsibility of States for Internationally Wrongful Acts, annexed to and adopted by UN GA Res, 56/83 (12 December 2001), corrected by UN Doc. A/56/49(Vol. I)/Corr.4. [hereinafter Draft Articles on State Responsibility] Article 31 of which reiterates that "[t]he international responsibility of a State which is entailed by an internationally wrongful act ... involves legal consequences...."

⁵⁵ Vienna Declaration and Programme of Action, adopted at the World Conference on Human Rights, UN Doc. A/CONF.157/23 (25 June 1993), para. 5.

⁵⁶ In this regards it is interesting to note that with the first steps towards the recent establishment of international human rights texts and bodies in Asia (ASEAN), the Arab world (League of Arab States) and Islamic world (Organization of the Islamic Conference) there are both human rights texts and often mechanisms to promote human rights in all parts of the world.

A number of specific human rights are implicated by climate change. In each case because climate change can be attributed to the actions of individuals acting on behalf of states or with the implicit or explicit consent of states, when it causes harm to these human rights state responsibility for a violation of human rights may be incurred. Several of these human rights are discussed below. Other human rights, including the right to self-determination, which may be violated when a people's total territory is inundated by rising sea-levels caused by climate change, are not discussed.

i. The right to life

There are several actual and projected effects of climate change that have a negative impact on the right to life. For example, the increasing intensity of tropical storms in Sub-Saharan Africa has already cost thousands of lives.⁵⁷ Climate projections show a rising trend of climate disasters both in developed and developing countries. These impacts occur and will even intensify due to the high concentration of GHGs that have already been emitted mainly by developed countries. However, as was stated above, developing countries are and will be most seriously affected while often lacking the ability to mitigate and adapt to climate change. Illustratively, more than 90 per cent of the people exposed to climate disasters live in the developing world, and more than half of disaster deaths occur in countries with a low human development index.⁵⁸

The IPCC suggests that climate change can be mitigated to such an extent that the most dangerous scenarios of climate change – with millions of people being killed by climate change – would not occur. Such a level of mitigation cannot be reached without deep domestic emission cuts by those who are historically responsible for climate change (i.e. the developed countries); neither can it be reached without the transfer of technology and financial resources to developing countries which would enable them to avoid 'polluting' development paths. This is because developing countries cannot be asked to halt their efforts to achieve greater levels of industrial development for their people, even if these efforts cause an increase in GHG emissions. The UNDP points out, for example, that 1.6 billion people in the world still lack access to electricity. And the provision of electricity to rural regions of Bangladesh is estimated to have averted 25 child deaths for every 1000 households connected.⁵⁹ In developed countries, however, deep emission cuts are very unlikely to affect the fulfillment of basic needs or have life-threatening consequences.

In addition, economic studies suggest that hundreds of billions of dollars are needed annually for adaptation in developing countries. Without such funding, developing countries might not be able to protect the right to life of their inhabitants against the projected impacts of climate change.

The legal obligations in relation to the right to life are based on several international and regional human rights instruments – such as the International Covenant on Civil and Political Rights (ICCPR)⁶⁰ - and on customary international law.⁶¹ These instruments impose

⁵⁷ See generally United Nations Environment Programme (UNEP), *Global Environment Outlook 4: Environment for Development* 367 (2007), pp. 302-303 [hereinafter UNEP].

⁵⁸ Ibid.

⁵⁹ Ibid., at 45.

⁶⁰ International Covenant on Civil and Political Rights, 999 *UNTS* 171 (entered into force March 23, 1976) [hereinafter ICCPR] at Article 6.

⁶¹ See, for example, the Convention on the Rights of the Child, 1577 *UNTS* 3 (entered into force 2 September 1990) [hereinafter CRC], Article 6; the African Charter on Human and Peoples' Rights, 1520 *UNTS* 217

obligations on states to protect, respect and fulfill this human right. This means states must not act to interfere with the exercise of a human right (respect); must take affirmative action to protect individuals and groups against human rights violations (protect); and must take positive steps to ensure the enjoyment of basic human rights (fulfill).⁶² The United Nations Human Rights Committee has confirmed that the right to life must not “be understood in a restrictive manner,” but “requires that States adopt positive measures.”⁶³ Such measures must include measures to reduce preventable death, including from environmental factors, and to protect individuals from certain imminent environmental threats to life.⁶⁴ Thus, the right is violated not only by states that arbitrarily deprive people of their life, but also by states that fail to act in relation to matters where action is possible and which causes a threat to or loss of life.

The right to life has been recognized as being of a non-derogable nature and of *jus cogens* status.⁶⁵ States’ obligations to respect and protect the right to life have further been determined to extend beyond state borders to actions that effect individuals abroad.⁶⁶

Because climate change is known to cause the arbitrary loss of life, it can be argued that (1) acts that are attributable to a state that have caused or cause climate change may violate the right to life; (2) a state’s failure to take measures – e.g. sufficient mitigation and technology transfer - to prevent dangerous climate change may violate the right to life; (3) developing countries may be forced to increase emissions *because* they have to take positive steps to protect the right to life; and (4) a state’s failure to take measures to ensure that the most vulnerable people and countries can adapt to climate change may violate the right to life.

In each case, to determine whether a violation does occur it is necessary to consider a state’s parallel obligations under the UNFCCC, including the principles of equity, common but differentiated responsibilities and respective capabilities. Moreover, a state’s obligations in relation to the right to life cannot be separated from obligations to respect, protect and fulfill other human rights, including those related to development.

(entered into force 21 October 1986) [hereinafter ACHPR], Article 4; the European Convention for the Protection of Human Rights and Fundamental Freedoms, 213 UNTS 221 (entered into force 3 September 1953) [hereinafter ECHR], Article 6; American Convention on Human Rights, 1144 UNTS 123 (entered into force July 18, 1978), Article 4; American Declaration on the Rights and Duties of Man, O.A.S. Res. XXX, adopted by the Ninth International Conference of American States (1948), reprinted in *Basic Documents Pertaining to Human Rights in the Inter-American System*, OEA/Ser.L.V/II.82 doc.6 rev.1 at 17 (1992), [hereinafter ADRDM], Article 1; the Arab Charter on Human Rights, adopted by the League of Arab States, on 22 May 2004 reprinted in 12 *Int’l Hum. Rts. Rep.* 893 (2005), entered into force 15 March 2008, Article 5(a).

⁶² Para. 15, The Committee on Economic, Social and Cultural Rights (CESCR), General Comment 12, Right to adequate food (Twentieth session, 1999), UN Doc. E/C.12/1999/5 (1999), reprinted in *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, UN Doc. HRI/GEN/1/Rev.6 at 62 (2003).

⁶³ Para. 5 in Human Rights Committee, General Comment 6, Article 6 adopted at the 16th Sess. held in 1982 reprinted in *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, UN Doc. HRI/GEN/1/Rev.1 at 6 (1994).

⁶⁴ Human Rights Committee, General Comment 6: Article 6 (Sixteenth session, 1982), UN Doc. HRI/GEN/1/Rev.6 at 127 (2003).

⁶⁵ See, for example, B.G. Ramcharan, *The Right to Life in International Law*, Hague Academy of International Law (1985).

⁶⁶ See, for example, *López Burgos v. Uruguay*, UN Doc. A/36/40 at 176 (29 July 1981). Also see generally, Fons Coomans, and Menno T. Kamminga, eds., *Extraterritorial application of human rights treaties* (2004) for discussions of this issue by various authors and in various international forums.

ii. The right to an adequate standard of living

Climate change will not only have an impact on the right to life; it also impacts a range of other human rights, including the human right to an adequate standard of living. This right comprises several components, including housing, food, water and clothing. Once again, the impacts on this right are already visible in developing countries and are projected to worsen in the future. For example, in relation to the right to food, in Southern Africa yields from rain-fed agriculture could decrease by 50 per cent between 2000 and 2020 due to decreasing rainfall in this region.⁶⁷ This will likely bring about food shortages, price increases and unemployment.⁶⁸ Coping strategies to deal with these changes, including reducing food consumption, cutting back on the nutritional quality of food, and preventing children from attending school, also have an impact on a wide range of human rights.⁶⁹ The right to adequate housing will also be affected in many ways. For example, for urban slum dwellers that cannot draw on their savings, increasing exposure to floods poses an immediate threat to their lives and livelihoods and in particular on their right to adequate housing.⁷⁰ It is also projected that an estimated 1.8 billion people are at risk of being forced to live in a water-scarce environment by 2080 as a consequence of climate change, causing interference with the right to water.⁷¹

It is important to note that the right to an adequate standard of living is already being impacted by climate change and that some of the projected impacts on this right are already unavoidable. As with the unavoidable impacts on the right to life mentioned above, these impacts occur largely due to the GHGs that have already been emitted by developed countries. Again, such impacts can be mitigated, at least in part, by the transfer of technology and financial resources to developing countries so that adaptation measures can be taken. However, the facts suggest that states will be unable to protect the right to an adequate standard of living in the absence of deep emission cuts.

The right to an adequate standard of living is recognized in customary international law as well as in regional and international treaties.⁷² Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) states in the relevant part that pursuant to Article 11 (1) of the Covenant, States Parties “recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions.” This right and its constituents are also found in the Universal Declaration of Human Rights.⁷³ The different elements of the right have been subject to extensive interpretation by international human rights bodies. For example, the right to food has been interpreted as consisting of the obligation to ensure progressive realization of the right of everyone to the right to food, as well as of a core

⁶⁷ United Nations Development Programme (UNDP), *Human Development Report 2007/2008 (Fighting climate change: Human solidarity in a divided world)* (2007) [hereinafter HDR 2007], p. 91.

⁶⁸ *Ibid.*, p. 84.

⁶⁹ *Ibid.*, pp. 74, 89.

⁷⁰ *Ibid.*, p. 74.

⁷¹ *Ibid.*, p. 95.

⁷² In addition to the International Covenant on Economic, Social and Cultural Rights, the right to food is found in, among others, the Convention on the Rights of the Child, 1577 UNTS 3 (*entered into force* 2 September 1990) [hereinafter CRC], Article 24(2)(c); the European Social Charter, as revised in 1996, Article 4(1); Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights [hereinafter the “Protocol of San Salvador”], Article 12; ADRDM, Article XI; and the Arab Charter on Human Rights, Article 38.

⁷³ Art. 25 of the UDHR.

obligation to ensure that a certain minimum standard is being met immediately. In addition to Article 11 of the ICESCR the right to food is found in several universal and regional treaties.⁷⁴ The right requires “resource allocations and policy initiatives” and “international cooperation.”⁷⁵

Violations of the right to an adequate standard of living may occur through acts that are attributable to states and cause climate change, or through states’ failure to act in relation to mitigation and adaptation, as described above in relation to the right to life. In considering whether a violation of the right to an adequate standard of living has occurred it will be taken into account that the enjoyment of this right depends for a large part on a country’s ability to realize its sustainable development objectives. This makes it even more important to consider states’ legal obligations to respect, protect and fulfill this right in full recognition of the UNFCCC and its key principles, including the right to development, and the duty to cooperate. This point will be elaborated on below.

iii. The right to health

Exemplifying the indivisibility of rights, several of the climate change impacts described above will also undermine the right to health. In addition, there are impacts that have a particular bearing on the right to health, such as the projected increased occurrence of diseases such as cholera, malaria, hantavirus, dengue fever, scrub typhus and schistosomiasis due to temperature and geographic changes associated with climate change.⁷⁶ Many of these effects will be felt most in societies where access to health care facilities is already inadequate.⁷⁷ The threat to the right to life will be greater in the many developing countries where healthcare delivery and basic services are compounded by water quality problems, including contamination of water supply. Inadequate energy production also leads to power outages that cause disruption to the public water supply. This often occurs in countries where fresh-water availability is decreasing due to increasing desertification and salinization.

In a similar way as described above in relation to the rights to life and an adequate standard of living, scientific projections suggest that some of the future impacts on the right to health are still preventable if sufficient mitigation measures are taken. Other impacts will only be preventable through adaptation and increased capacity, accessibility and availability of health care systems in developing countries, which requires financial resources and continuous economic development.

One of the most notable expressions of the human right to health is found in the ICESCR in Article 12. In the future it is likely that the CESCR will express its authoritative

⁷⁴ These include the International Convention on the Elimination of All Forms of Racial Discrimination, Article 5(e)(iii); the CEDAW, Article 14(2); the CRC, Article 27(3); the Convention relating to the Status of Refugees, 189 UNTS 150, entered into force April 22, 1954, Article 21; Convention on Migrant Workers, Article 43(1); the International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities, UNGA Res. 61/106, Annex I, *Official Records of the General Assembly, Sixty-first Session, Supplement No. 49 (A/61/49)* at 65 (2006), entered into force 3 May 2008, Article 26 and 28; the ADRDM, Article XI; and the Arab Charter on Human Rights, Article 38.

⁷⁵ Committee on Economic, Social and Cultural Rights, General Comment 4, The right to adequate housing (Sixth session, 1991), UN Doc. E/1992/23, annex III at 114 (1991), reprinted in *Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, UN Doc. HRI/GEN/1/Rev.6 at 18 (2003).

⁷⁶ IPCC 4AR Synthesis Report, p. 48.

⁷⁷ Ibid.

views on individual petitions considering that an Optional Protocol allowing such communication to be made has recently been adopted.⁷⁸ Additional expressions of the right to health are found in many other human rights instruments.⁷⁹ Even international organizations that cut across regional boundaries, such as the Organization of Islamic States, have endorsed the human right to health.⁸⁰ Like the other economic and social rights enumerated above the right to health requires that a state both refrain from action interfering with the right and take positive action to protect, ensure or fulfill the right for every person under its jurisdiction.⁸¹

The UN Special Rapporteur on the Right of Everyone to the Enjoyment of Physical and Mental Health, Professor Paul Hunt, has highlighted the international dimensions of the right to health in a detailed report to the UN Human Rights Council on international cooperation, in which he confirms that international assistance and cooperation in health are part of a state's responsibility under international human rights law.⁸² In a contribution on the link between climate change and the right to health Professor Hunt, together with Professor Rajat Khosla, clarifies that the duty to respect the right to health entails a responsibility of high-income countries to facilitating access to essential health service as well as adaptation in low-income states.⁸³

⁷⁸ Optional Protocol to the International Covenant on Economic, Social and Cultural Rights, UNGA Res. 63/117 (2008), not yet *entered into force*.

⁷⁹ ICERD, Article 5(e)(iv); CEDAW, Article 11(1)(f), 12 and 14(2)(b); the CRC, Article 24; the Convention concerning Indigenous and Tribal Peoples in Independent Countries, ILO No. 169, adopted at the 76th General Conference of the International Labour Organization on 27 June 1989, entered into force 5 September 1991, especially Articles 7, 20, and 25; International Convention on the Protection and Promotion of the Rights and Dignity of Persons with Disabilities, UNGA Res. 61/106, Annex I, *Official Records of the General Assembly, Sixty-first Session, Supplement No.49 (A/61/49)* at 65 (2006), entered into force May 3, 2008, especially at Article 25 and 26; the ACHPR, Articles 16; Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, adopted by the 2nd Ord. Sess. of the Assembly of the African Union, Maputo, AU Doc. CAB/LEG/66.6 (13 September 2000), entered into force 25 November 2005, especially Article 14; the African Charter on the Rights and Welfare of the Child, OAU Doc. CAB/LEG/24.9/49 (1990), entered into force 29 November 1999, especially Articles 14 and 11(2)(h); the Additional Protocol of the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador), approved by the Ninth International Conference of American States, Resolution XXX, Bogota, 1948 by the Pan-American Union, Final Act of the Ninth Conference of American States 38-45 (Washington, D.C., 1948), especially Article 10; the European Social Charter, originally adopted as 529 UNTS 89, entered into force 26 February 1965, especially Article 11; and revised and adopted as European Social Charter (revised), ETS No. 163, entered into force 7 January 1999, especially Article 11 and 13; Charter of Fundamental Rights of the European Union, 2000 *Official Journal of the European Union* (C 364) 1 (7 December 2000), especially Article 35; and more recently, the Arab Charter on Human Rights, adopted by the League of Arab States, on 22 May 2004 *reprinted in 12 Int'l Hum. Rts. Rep.* 893 (2005), *entered into force* 15 March 2008, particularly Articles 38 and 39; and the Charter of the Association of South East Asian Nations, adopted on 20 November 2007 in Singapore, *accessed at* <http://www.aseansec.org/21069.pdf> (last accessed 12 July 2009), although not enumerating rights in this document it would appear that the ASEAN states view health as one of the human rights that are generally referred to in the ASEAN Charter. *Also see*, ASEAN, Draft Terms of Reference of [an ASEAN Human Rights Body], para. 1.4 (dated 15 January 2009) available at <http://www.scribd.com>.

⁸⁰ *See* Article 17 of the Cairo Declaration on Human Rights in Islam, adopted at the 14th Islamic Conference of Foreign Ministers, Res. No. 49/19-P (1990) and Article 15 of the Covenant on the Rights of the Child in Islam, adopted in OIC Doc. OIC/9-IGGE/HRI/2004/Rep. Final (2004), not yet *entered into force*.

⁸¹ *See* para. 15, CESCR, General Comment 14, The right to the highest attainable standard of health (22nd Sess., 2000), UN Doc. E/C.12/2000/4 (2000), *reprinted in Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies*, UN Doc. HRI/GEN/1/Rev.6 at 85 (2003).

⁸² *See* Paul Hunt, *Report of the Special Rapporteur on the Right of Everyone to the Enjoyment of Physical and Mental Health on Missions to World Bank and the International Monetary Fund and Uganda*, UN Doc. A/HRC/7/11/Add.2 (2008).

⁸³ *See* Paul Hunt and Rajat Khosla., "Right to the Highest Attainable Standard of Health" in *Human Rights and Climate Change*, S. Humphreys (ed.) (2010), pp. 252-253.

It is the international or interstate dimension of the right to health that is particularly relevant to developing countries seeking to protect the rights of their inhabitants against the impacts of climate change. As to the occurrence of violations of the right to health, similar remarks can be made as in relation to violations of the rights to life and to an adequate standard of living. When applied to the facts on the health impacts of climate change this means, among other things, that developed states may be responsible for violating the right to life if they fail to ensure that low-income states can put in place the necessary facilities to avoid devastating health impacts resulting from climate change.

iv. The right to development

The Right to Development has been articulated and recognized as a distinct right. This right evolved from a number of UN General Assembly resolutions, most notably the Declaration on the Right to Development that was adopted by an overwhelming majority of states in 1986.⁸⁴ Starting in 1969 the United Nations and other international forums adopted a number of declarations linking development to human rights. Examples include the Declaration on the Establishment of a New International Economic Order⁸⁵ and the Charter of Economic Rights and Duties of States⁸⁶ both from 1974. These instruments were based on the ideas of equity, common interest and interdependence as basis for the right of countries to development. The two covenants (ICCPR and ICESCR) contain several rights that form the basis of development of the individual such as the right to life, the right to an adequate standard of living, and right to health. Other human rights instruments also include provisions on the right to development such as the Convention on the Elimination of All Forms of Discrimination against Women that requires states to take all appropriate steps to ensure the development of women.⁸⁷

It is now generally accepted that, as conceptualized in the Universal Declaration of Human Rights, human rights come in a single indivisible package composed of civil and political rights (Articles 1 to 21) and economic, social, and cultural rights (Articles 22 to 28). It is clear that “true individual freedom cannot exist without economic security and independence” on the part of the society of which the individual is a member. At the Second UN World Conference on Human Rights in 1993 in Vienna, the Conference Declaration reaffirmed “the right to development, as established in the Declaration on the Right to Development, as a universal and inalienable right and an integral part of fundamental human rights.” The Vienna Declaration affirmed that “Human rights and fundamental freedoms are the birthright of all human beings; their protection and promotion is the first responsibility of government.” It also committed the international community to the duty to cooperate in order to realize these rights.

While the State has the primary obligation to implement a coherent, equitable and sustainable development process at the national level, in an interdependent world, economic growth in any one country is dependent on States and other actors of the international economy that influence trade, finance and flows of capital and technology. Hence, at a

⁸⁴ UNGA Res. 41/128, annex, *Official Records of the General Assembly, Forty-first Session, Supplement No. 53 (A/41/53)* at 186 (1986).

⁸⁵ UNGA Res. 3201 (S-VI), *Official Records of the General Assembly, Sixth Special Session, Supplement No. 1 (A/9556)* (1974).

⁸⁶ UNGA Res. 3281 (XXIX), *Official Records of the General Assembly, Twenty-ninth Session, Supplement No. 31 (A/9631)* (1974).

⁸⁷ 1249 UNTS 13 at Article 3, *entered into force* 3 September 1981.

minimum, the right to development requires states to cooperate with each other to enhance development everywhere in the world and address major obstacles to development such as climate change. The promotion and protection of the right to development itself is explicitly made part of the Human Rights Council's mandate. For this reason the right to development has been the central focus of the UN Human Rights Council's independent expert on human rights and international solidarity, Mr. Rudi Muhammad Rizki.⁸⁸ Because climate change has such significant impacts on the ability of developing countries to develop, the duty of cooperation that is inherent in the right to development is of heightened importance when discussing the consequences of climate change.⁸⁹

b. The Link Between Rights and Development

International human rights bodies have recognized the link between human rights and development, especially in relation to poverty. For example, the United Nations Committee on Economic, Social and Cultural Rights, at its twenty-fifth session held in Geneva in May 2001, defined poverty as “a human condition characterized by the sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights.” This definition of poverty clearly establishes a causal relation between economic and political deprivation and the violation of human rights. It carries with it the implicit message that the process of eradicating poverty – i.e. the process of development – then becomes a fundamental component in promoting and enhancing human rights.

In short, development (resulting in poverty eradication) establishes the conditions necessary for the full enjoyment of human rights. This framework is compelling because it exposes the fundamental dynamics that exist between poverty and economic and political marginalization on one hand and development and economic and political empowerment on the other hand as the backdrop for the enjoyment or non-enjoyment of human rights. Economic and political empowerment of the poor through poverty eradication and development are, therefore, closely interlinked and are essential to the full enjoyment of human rights.

The most fundamental way in which empowerment occurs is through the integration of the concepts of rights and of development as part of the same developmental discourse. Most of the salient features of the existing human rights normative framework such as accountability, the principles of universality, non-discrimination and equality, the principle of participatory decision-making processes, and recognition of the interdependence of rights, can all contribute to the economic empowerment of the people in one way or another.

The rationale for development derives not merely from the fact that the poor have needs but also from the fact that they have rights – entitlements that give rise to obligations on the part of others. Poverty reduction and the promotion of development then becomes more than charity – it becomes a human right obligation that all States have to fulfill on behalf and in favour of their peoples.

⁸⁸ See Report of the independent expert on human rights and international solidarity, UN Doc. A/HRC/12/27 (22 July 2009).

⁸⁹ See Section II(B)(c) of the Report of the independent expert on human rights and international solidarity discussing the duty to cooperate in more detail.

The achievement of development and the realization of the full enjoyment of human rights cannot take place in a context where power relations perpetuate and magnify inequalities, whether between individuals or between countries. Promoting the universality of the normative values of human rights must be done through the promotion of measures that will reduce or eliminate the inequalities in economic and power relations, especially between developed and developing countries, which render such universality effectively moot. Clearly, with most of the world's population (mostly in developing countries) still struggling to get out of poverty and make ends meet, poverty eradication and development must serve as the necessary backdrop and foundation for ensuring that human rights are met. In short, human rights without development would not be human rights, and development without human rights is not development.

On the level of interstate relations, a consequence of the intrinsic link between development and human rights is the need for affirmative action. The principle of affirmative action, which is incorporated in international human rights law, is an expression of an exception to the general principle that all states are sovereign equals, which means that generally all states have the same legal obligations.⁹⁰ It provides that a state may have to treat right holders differently, if by treating right holders similarly when they are in unequal positions, inequalities are maintained. Accordingly, it would require that in any given set of economic, environmental and social conditions, those who are disadvantaged should affirmatively benefit disproportionately in terms of favourable rules that seek to increase their material benefits more than those who are already relatively well-off.⁹¹

In the UNFCCC, the concept of sustainable development as the foundation for global action on climate change can be seen in, inter alia:

- Article 3.4 which recognizes the right to promote sustainable development;
- Article 4.7 which provides for the balance of obligations (see Figure 2) among UNFCCC Parties and which requires that in implementing UNFCCC obligations, the Parties must “take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties.” This balance of obligations in Article 4.7 basically states that the extent of implementation by developing countries of their UNFCCC commitments depends on the extent to which developed countries implement their commitments to provide finance⁹² and technology⁹³ to developing countries. Developed countries are also obliged to undertake binding reductions in their GHG emissions under Article 4.2(a) and (b);
- Article 2 on the objective of the UNFCCC requires that global climate actions to stabilize atmospheric concentrations of GHGs (such as the mitigation actions of developed countries under Article 4.2(a) and (b) and the Kyoto Protocol⁹⁴) must be

⁹⁰ See, for example, Article 6 of the Convention on the elimination of All Forms of Discrimination against Women, 1249 UNTS 13. Also see C.F.J. Doebbler, *International Human Rights Law: Cases and Materials* (2004), pp. 116-118 and Cohen, M. Cohn, “Affirmative Action and the Equality Principle in Human Rights Treaties: United States' Violation of Its International Obligations,” 43 *Virginia Journal of International Law* 249 (2002).

⁹¹ John Rawls calls this the “difference principle.” See John Rawls, *A Theory of Justice* (1971).

⁹² Embodied in UNFCCC Articles 4.3, 4.4 and 4.5.

⁹³ UNFCCC Article 4.5.

⁹⁴ Due to the application of the principle of common but differentiated responsibility, developing countries are not subject to binding emission reductions, although they do have some commitments in common with developed countries under Article 4.1 of the UNFCCC.

done within such timeframes as would allow ecosystems to adapt, secure food supplies, and allow for sustainable development to take place.

The principles of equity and common but differentiated responsibilities and respective capacities are also an exception to the general principle that all states are sovereign equals.

c. The Duty to Cooperate Between States

To ensure that human rights are realized everywhere on the planet, one of the most important legal obligations that form part of the human rights approach is the duty to cooperate. This legal duty is especially important in the context of climate change because it is evident that the states with the least ability to adapt to or mitigate climate change bear the greatest burden of its harmful effects. The duty to cooperate is also important for addressing the “equity challenge” presented by climate change,⁹⁵ with developing countries having contributed the least to causing a problem that affects them most.

The duty to cooperate has a legal basis in the UN Charter. Article 1 of the UN Charter mentions the four purposes of the United Nations. According to Article 1 (3) the purposes of the United Nations include “[t]o achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion.” Article 55 mentions “universal respect for, and observance of, human rights and fundamental freedoms for all” as a purpose which the UN shall promote, while Article 56 obliges members to take joint and separate action in cooperation with the Organization for the achievement of the purposes set out in Article 55.

The duty to cooperate is further supported by Article 28 of the Universal Declaration of Human Rights (UDHR), which is widely acknowledged to reflect customary international law,⁹⁶ and provides that everyone is entitled to a social and international order in which human rights can be fully realized.⁹⁷

The Committee on Economic, Social and Cultural Rights (CESCR) has also confirmed that “in accordance with Articles 55 and 56 of the Charter of the United Nations, with well-established principles of international law, and with the provisions of the Covenant itself, international cooperation for development and thus for the realization of economic, social and cultural rights is an obligation of all States.”⁹⁸

This is consistent with Article 2(1) of the International Covenant on Economic, Social and Cultural Rights (ICESCR), which provides that states have obligations to “[undertake] to take steps, individually and through international assistance and co-operation, especially economic and technical, to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the present Covenant by all

⁹⁵ See S. McInerney-Lankford, “Climate Change and Human Rights: an Introduction to Legal Issues,” *Harvard Environmental Law Review* 431, 438 (2009), p. 431.

⁹⁶ See, generally, H.J. Steiner, P. Alston and R. Goodman, *International human rights in context: law, politics, morals* (2007).

⁹⁷ Universal Declaration of Human Rights, Article 28.

⁹⁸ United Nations Committee on Economic, Social and Cultural Rights (CESCR), General Comment 3: The Nature of States Parties Obligations, International Committee on Economic Social & Cultural Rights, UN Doc. E/1991/23 (14 December 1990), para 14.

appropriate means, including particularly the adoption of legislative measures.”⁹⁹ Notably, the ICESCR, as opposed to the International Covenant on Civil and Political Rights (ICCPR), does not have a jurisdictional clause that restricts the scope and application of the ICESCR.¹⁰⁰ Thus the rights provided in ICESCR must apply, at least to some extent, extraterritorially. This approach was taken by the CESCR in its General Comment on the Right to Social Security.¹⁰¹

In order to ensure the universal realization and enjoyment of human rights the climate adaptation impacts and costs that developing countries will have to bear as a result of the committed warming must be significantly mitigated. At the same time, it is imperative that developing countries be enabled to realize their sustainable development objectives necessary for realizing human rights without causing further damage to the climate – which would result in even more human rights violations. So far we have shown that the UNFCCC, if implemented, provides the framework through which these aims of contemporaneously tackling climate change and underdevelopment – and therewith realizing rights - can be achieved. It may thus be argued that the duty to cooperate implies, as a very minimum, the duty to ensure the full, effective and sustained implementation of the UNFCCC in accordance with international human rights law.

C. State Obligations to Comply with International Law Obligations on Climate Change and Human Rights – *Pacta Sunt Servanda*

While states enjoy a significant amount of discretion as to how they achieve their legal human rights obligations, they do not enjoy the discretion of taking no action at all. This is an application not only of the duty to cooperate but also of the customary law principle of *pacta sunt servanda* which has been codified in the 1969 Vienna Convention on the Law of Treaties.¹⁰² The discretion of states of how to address the human rights impacts of climate change is further limited by the UNFCCC, which, we have argued, provides legal obligations that run parallel to those under international human rights law and are binding upon virtually every member of the international community.

In this context, it is important to consider the state of implementation by both developed and developing countries of their commitments under the UNFCCC. If human rights law is viewed as reinforcing states’ obligations under the UNFCCC, this assessment can accordingly be viewed as an assessment of the extent to which states are already mitigating the threats posed by climate change to human rights that we outlined in Section B.

⁹⁹ Article 2(1) of the International Covenant on Economic, Social and Cultural Rights, 993 *UNTS* 3 (entered into force 3 January 1976) [hereinafter ICESCR].

¹⁰⁰ F. Coomans, “Some Remarks on the Extraterritorial Application of the International Covenant on Economic, Social and Cultural Rights” in F. Coomans & M.T. Kamminga, (eds.), *Extraterritorial application of human rights treaties* (2004), pp. 183-200.

¹⁰¹ UN Committee on Economic, Social and Cultural Rights, General Comment 19: The Right to Social Security (Advance Unedited Version), UN Doc. E/C.12/GC/19 (23 November 2007) para. 54.

¹⁰² Article 26 of the 1969 Vienna Convention on the Law of Treaties requires that “every treaty in force is binding upon the parties to it and must be performed by them in good faith” while Article 27 goes on to emphasize that “A party may not invoke the provisions of its internal law as justification for its failure to perform a treaty”.

1. Developed Country Compliance with Their UNFCCC Obligations

a. Article 4.2(a) and (b) - Taking the Lead in Mitigation to Modify Longer-Term Trends in Emissions and Returning to 1990 Levels

The quantified greenhouse gas emission mitigation commitments of Annex I Parties are spelled out in Article 4.2(a) and (b) of the UNFCCC. These provisions essentially oblige the listed Annex I Parties to:

- adopt national policies and take corresponding measures to mitigate climate change by limiting anthropogenic emissions of greenhouse gases and enhancing greenhouse gas sinks and reservoirs;
- take the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the UNFCCC;¹⁰³ and
- periodically communicate to the Conference of Parties (COP) “detailed information” on their mitigation policies and measures and their greenhouse gas national inventories, “with the aim of **returning individually or jointly to their 1990 levels**” such greenhouse gas emissions (emphasis added).

Realizing that the specific target of returning individually or jointly to their 1990 levels indicated in Article 4.2(b) was still inadequate, UNFCCC Parties decided to negotiate the Kyoto Protocol that would provide additional detail on how the mitigation commitment contained in Article 4.2(a) and (b) of the UNFCCC would be met.

In Article 3 of the Kyoto Protocol, UNFCCC Annex I Parties agreed to undertake “quantified emission limitation and reduction commitments” as contained in Annex B of the Kyoto Protocol. These essentially call for an aggregate reduction by Annex I Parties of at least 5 per cent below 1990 levels.

i. Complying with Mitigation Obligations under Article 4.2(a) and (b) of the UNFCCC and Article 3 of the Kyoto Protocol

As of the middle of the decade 2000-2010, nineteen (19) (mostly Annex I Parties that are not economies in transition (EITs)) of the forty (40) Annex I Parties to the UNFCCC have GHG emission levels that are still above their 1990 emissions. These are:

¹⁰³ The obligation of developed countries under Article 4.2(a) is not simply the limitation of greenhouse gas emissions and enhancing removals but rather doing so in ways that will: (i) show that they are leading in “modifying longer-term trends” – i.e. that they are changing the underlying production and consumption patterns in their societies that result in longer-terms trends of anthropogenic emissions or removals; and (ii) lead to the achievement of the objective of the UNFCCC – i.e. the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference in the climate system, to be achieved within a timeframe sufficient to allow for ecosystems to adapt naturally to climate change, ensure food security and production, and enable economic development to proceed sustainably.

Table 1
Annex I Parties with Emission Levels Still Above 1990 Levels:
2003-2007

1. Australia	7. Ireland	14. Norway
2. Austria	8. Italy	15. Portugal
3. Belgium	9. Japan	16. Slovenia
4. Canada	10. Liechtenstein	17. Spain
5. Finland	11. Monaco	18. Turkey ¹⁰⁴
6. Greece	12. Netherlands	19. United States of America
	13. New Zealand	

Of the 39 Annex I Parties that are Parties to the Kyoto Protocol¹⁰⁵, twenty-one (21) have not yet, as of the period 2003-2007, met their Kyoto Protocol mitigation commitments nor have “made demonstrable progress” in achieving such commitments.¹⁰⁶ These are:

Table 2
Annex I Parties that are Parties to the Kyoto Protocol with Emission Levels Still Above their Kyoto Protocol Annex B Targets:
2003-2007

1. Australia	8. Greece	15. New Zealand
2. Austria	9. Ireland	16. Norway
3. Belgium	10. Italy	17. Portugal
4. Canada	11. Japan	18. Slovenia
5. Denmark	12. Liechtenstein	19. Spain
6. European Community	13. Monaco	20. Sweden
7. Finland	14. Netherlands	21. Switzerland

Table 3
Annex I Parties:
Track Record in Meeting Mitigation Targets Under the UNFCCC and the Kyoto Protocol

Annex I Party	Kyoto Protocol Mitigation Target	1990 or Base Year Emissions (in Million Tons of total GHGs)	Compliance with Targets	
			GHG Emissions as Reported in 4 th National Communication (with Year of Emissions Data)	Percentage +/- from the 1990 or Base Year Emissions
1. Australia	8% above 1990	546.327	597.156 (2007)	9.30%
2. Austria	8% below 1990	79.036	87.958 (2007)	11.29%

¹⁰⁴ Turkey’s GHG emissions rose from 170.1 million tons to 296.6 million tons CO₂ eq between 1990 and 2004. See Turkey’s first national communication at <http://unfccc.int/resource/docs/natc/turnc1.pdf>.

¹⁰⁵ Only the United States is an Annex I Party that is not a Party to the Kyoto Protocol.

¹⁰⁶ It should be noted, though, that the first commitment period of the Kyoto Protocol under which the Annex I Parties are supposed to comply with their targets under Annex B of the Kyoto Protocol covers only the period 2008 to 2012. However, Article 3.2 of the Kyoto Protocol expressly provides that “[e]ach Party included in Annex I shall, by 2005, have made demonstrable progress in achieving its commitments under this Protocol.”

Annex I Party	Kyoto Protocol Mitigation Target	1990 or Base Year Emissions (in Million Tons of total GHGs)	Compliance with Targets	
			GHG Emissions as Reported in 4 th National Communication (with Year of Emissions Data)	Percentage +/- from the 1990 or Base Year Emissions
3. Belarus	8% below 1990	127.361	74.306 (2004)	-41.64%
4. Belgium	8% below 1990	145.7	150.7 (2005)	3.43%
5. Bulgaria	8% below base year 1989	138.377	69.167 (2003)	-50.02%
6. Canada	6% below 1990	599.000	758.000 (2004)	26.54%
7. Croatia	5% below 1990	19.077	14.494 (2003)	-24.02%
8. Czech Republic	8% below 1990	194.21	148.20 (2006)	-23.69%
9. Denmark	8% below 1990	70.4	69.6 (2004)	-1.14%
10. Estonia	8% below 1990	43.5	21.4 (2003)	-50.80%
11. European Community	8% below 1990	5212	4925 (2003)	-5.51%
12. Finland	8% below 1990	43.5	86 (2003)	97.70%
13. France	8% below 1990	568	557 (2003)	-1.94%
14. Germany	8% below 1990	1226.671	1015.691 (2004)	-17.20%
15. Greece	8% below 1990	109.470	137.643 (2003)	25.74%
16. Hungary	6% below base year (average of 1985 to 1987)	122.232	83.248 (2003)	-31.89%
17. Iceland	10% above 1990	3.282	3.083 (2003)	-6.00%
18. Ireland	8% below 1990	55.614	68.46 (2004)	23.10%
19. Italy	8% below 1990	434.781	493.371 (2003)	13.48%
20. Japan	6% below 1990	1,187	1,339 (2003)	12.81%
21. Latvia	8% below 1990	18.654	7.427 (2003)	-60.19%
22. Liechtenstein	8% below 1990	25	26.3 (2003)	5.20%
23. Lithuania	8% below 1990	50.928	17.223 (2003)	-66.18%
24. Monaco	8% below 1990	0.0964	0.1332 (2003)	38.17%
25. Netherlands	8% below 1990	211.7	214.8 (2003)	1.46%
26. New Zealand	Remain at 1990	61.521	76.517 (2005)	24.38%
27. Norway	1% above 1990	50.1	54.8 (2003)	9.38%
28. Poland	6% below base year 1988	568.829	388.473 (2004)	-31.71%
29. Portugal	8% below 1990	60.125	84.661 (2004)	40.81%
30. Romania	8% below base year 1989	262.282	154.627 (2004)	-41.05%
31. Russian Federation	Remain at 1990	3049.7	1876.46 (2003)	-38.47%
32. Slovakia	8% below 1990	72.1	51.6 (2003)	-28.43%
33. Slovenia	8% below 1990	18.566	19.803 (2003)	6.66%
34. Spain	8% below 1990	283.857	402.287 (2003)	41.72%
35. Sweden	8% below 1990	72.210	70.554 (2003)	-2.29%

Annex I Party	Kyoto Protocol Mitigation Target	1990 or Base Year Emissions (in Million Tons of total GHGs)	Compliance with Targets	
			GHG Emissions as Reported in 4 th National Communication (with Year of Emissions Data)	Percentage +/- from the 1990 or Base Year Emissions
36. Switzerland	8% below 1990	52.446	52.252 (2003)	-0.37%
37. Turkey	No Kyoto Protocol target but subject to UNFCCC Art. 4.2(a) and (b) target of 1990 levels	170.1	296.6 (2004)	74.37%
38. Ukraine	Remain at 1990	925.4	413.4 (2004)	-55.33%
39. United Kingdom	8% below 1990	776.1	665.3 (2004)	-14.28%
40. United States	7% below 1990	6109	7074.4 (2004)	15.80%

NOTE 1: Annex I Parties listed in **bold** are those that, as of the date for their GHG emissions data indicated in their 4th national communications have not yet met their Kyoto Protocol Annex B mitigation targets.

NOTE 2: All Annex I Parties are specifically committed under Article 4.2(a) and (b) to, individually and jointly, return their GHG emissions to their 1990 levels.

NOTE 3: The United States is an Annex I Party that is not a Party to the Kyoto Protocol but is listed in Annex B of the Kyoto Protocol. Turkey is an Annex I Party but, while having ratified the Kyoto Protocol, does not have any mitigation targets listed in Annex B of the Kyoto Protocol. Belarus was included in Annex B to the Kyoto Protocol with a quantified emission reduction commitment of 8 per cent below 1990 levels through an amendment to Annex B (decision 10/CMP.2). As at 18 September 2008, this amendment had not yet entered into force.

NOTE 4: The differing base years for Bulgaria, Hungary, Poland and Romania were approved by the COP/MOP decision 9/CP.2, para. 5

NOTE 5: Sources for the GHG emissions data in columns 3 and 4 above are from the 4th national communications and the Kyoto Protocol progress reports submitted by Annex I Parties in 2007. These can be downloaded from http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/3625.php. The calculations in the last column are South Centre calculations.

From 1990 to 2006, total greenhouse gas emissions from developed countries listed in Annex I of the UNFCCC (Annex I Parties) declined by 4.7 per cent, from 18.9 GT¹⁰⁷ CO₂eq to 18.02 GTCO₂eq.¹⁰⁸ However, between 2000 and 2006, total emissions of Annex I Parties “increased by 2.3 per cent (excluding Land use and land-use change and forestry (LULUCF)) and by 1.0 per cent (including LULUCF).”¹⁰⁹

Much of the total aggregate decrease in Annex I emissions during the period from 1990 to 2006 can be attributed to the sharp decrease in emissions from Annex I Parties with economies in transition (Annex I EIT Parties) following the collapse of the economies of the

¹⁰⁷ 1 gigaton (GT) equals 1 billion metric tons.

¹⁰⁸ If emissions and removals arising from land use and land use changes, including forestry (LULUCF), are taken into account, the percentage decrease would be even higher at 5.5 percent (from 17.694 GTCO₂eq to 17.724 GTCO₂eq). UNFCCC, “National greenhouse gas inventory data for the period 1990-2006”, FCCC/SBI/2008/12, 17 November 2008, para. 13.

¹⁰⁹ Ibid.

former Soviet Union and the eastern European countries after the dissolution of the Soviet Union in 1991.¹¹⁰ **Without the EIT Annex I Parties, the emissions of Annex I non-EIT Parties excluding LULUCF increased from 13 GTCO₂eq in 1990 to 14.29 GTCO₂eq in 2006, an increase of 9.9 per cent; the increase in greenhouse gas emissions including LULUCF was 9.1 per cent.** Between 2000 and 2006, greenhouse gas emissions from these Parties excluding LULUCF increased by 1.0 per cent and emissions including LULUCF decreased by 0.2 per cent.¹¹¹

As pointed out above, if the decrease in emissions experienced by Annex I EIT Parties between 1990 and 2000 is not taken into account, **the emissions from the developed countries (i.e. Annex I non-EIT Parties) actually rose by 9.9 per cent compared to 1990 levels between 1990 and 2006.** Such emissions are also projected by Annex I Parties themselves to increase even further by 2020 by around 17 to 22 per cent above 1990 levels.¹¹²

Furthermore, the commitment under Article 4.2(a) is not simply about limiting anthropogenic emissions of greenhouses (as well as protecting and enhancing sinks and reservoirs). The adoption and implementation of mitigation policies and measures by developed countries under Article 4.2(a) is in order for them to demonstrate that they are “taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention ...” This means, essentially, that reductions in developed countries’ emissions must be such as would result in modifications of longer-term emissions trends – i.e. result in long-term downward trends in emissions arising from changes in the production and consumption patterns that underlie such trends. In this context, it is quite clear that developed countries by and large – especially most of the Annex I non-EIT Parties – have not yet complied fully and effectively with their commitment under Article 4.2(a).

As of 2006, most developed countries listed in Annex I of the UNFCCC that are not EITs have not, by and large, complied with their commitment under Article. 4.2(b) to return “individually or jointly to their 1990 levels” their anthropogenic greenhouse gas emissions. Neither have most Annex I Parties that are Parties to the Kyoto Protocol met, as of 2006, their Kyoto Protocol Annex B targets. It is, in fact, largely the EIT Annex I Parties that were able to do so mainly because of the economic difficulties that they faced in the 1990s which resulted in the collapse of many industrial activities. Hence, *Annex I non-EIT Parties by and large, except for a few, have not managed to return to their 1990 levels.*¹¹³

b. Article. 4.3 and 4.4 – Providing Climate Financing to Developing Countries

Developed countries that are listed under Annex II of the UNFCCC are obliged under Article 4.3 to provide new and additional financial resources to developing countries that would:

¹¹⁰ EIT emissions decreased by 37 percent excluding LULUCF or 35 percent including LULUCF. However, EIT emissions are again on the rise as their economies stabilized. During the period 2000 to 2006, EIT emissions increased by 7.4 percent excluding LULUCF and 5.2 percent including LULUCF. *Ibid.*, para. 14.

¹¹¹ *Ibid.*, para. 15

¹¹² See UNFCCC, “Compilation and synthesis of fourth national communications: Addendum – Policies, measures, past and projected future greenhouse gas emission trends of Parties included in Annex I to the Convention”, FCCC/SBI/2007/INF.6/Add.1, 23 November 2007, paras. 146-153.

¹¹³ The non-EIT Annex I Parties that have managed to return to or go below their 1990 levels as of 2006 are: Netherlands, EU, France, Belgium, Sweden, Monaco, United Kingdom, and Germany, if LULUCF is excluded; or Denmark, Netherlands, EU, Belgium, France, Finland, Monaco, United Kingdom, Germany, and Norway, if LULUCF is included. See UNFCCC, “National greenhouse gas inventory data for the period 1990 to 2006”, FCCC/SBI/2008/12, 17 November 2008, Figure 4.

- meet the agreed full costs for the preparation and submission of developing countries' national communications; and
- meet the agreed full incremental costs (including for technology transfer) of developing countries to implement their obligations under Article 4.1.

Additionally, such developed countries as are listed in Annex II of the UNFCCC also have, under Article 4.4, the obligation to “assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting costs of adaptation to those adverse effects.”

Financing flows under the UNFCCC from developed (Annex II) Parties to developing countries pursuant to Articles 4.3, 4.4, and 4.5, are supposed to go through the UNFCCC's financial mechanism established under Article 11.1 to 11.4, with such financing to be “on a grant or concessional basis.”¹¹⁴ The financial mechanism is currently being operated by the Global Environment Facility (GEF), subject to review by the COP every four years. The GEF, as an operating entity of the financial mechanism, is supposed to comply with the guidance issued by the COP for its operation.¹¹⁵ Optionally, under Article 11.5, developed countries may also provide and developing countries avail themselves of financial resources through bilateral, regional, or multilateral channels. Annex II developed Parties are required to include in their national communications the details of measures that they take to comply with their financing obligations under Articles 4.3, 4.4 and 4.5.¹¹⁶ Such measures are taken into account in the context of the COP's review of the financial mechanism that takes place every four years.¹¹⁷

i. Data Relating to Compliance with Article 4.3¹¹⁸

With respect to the obligation to meet the agreed full costs for developing countries' national communications, developed countries have generally taken the approach of providing funding to the GEF which the GEF then provides to developing countries in order to support the preparation of their national communications. In this regard, the GEF has adopted operational procedures for the expedited financing of national communication from developing country Parties to assist eligible countries in formulating and submitting proposals based on COP 8 guidelines.¹¹⁹ Under these operational procedures, up to US\$405,000 is made available to each developing country Party for the preparation of its national communication. The GEF also provides an additional US\$15,000 per country for stocktaking exercise and stakeholder

¹¹⁴ UNFCCC Article 11.2.

¹¹⁵ Under Article 11.1, the financial mechanism “shall function under the guidance of and be accountable to the [COP], which shall decide on its policies, programme priorities and eligibility criteria related to” the UNFCCC.

¹¹⁶ UNFCCC Article 12.3.

¹¹⁷ See Annex of COP decision 3/CP.4 adopted in late 1998 which contains the guidelines and objectives for the review of the financial mechanism. Additional guidelines and objectives for such review were provided by the COP in December 2007 in COP decision 6/CP.13. Three reviews of the financial mechanism have taken place since the review guidelines were adopted in late 1998.

¹¹⁸ For discussion of Annex II Parties' reports in terms of their provision of financial resources pursuant to the UNFCCC, see e.g. UNFCCC, “Compilation and synthesis of fourth national communications: Executive summary”, FCCC/SBI/2007/INF.6, 19 November 2007, paras. 27 ff.; and UNFCCC, “Compilation and synthesis of fourth national communications: Addendum - Financial resources, technology transfer, vulnerability, adaptation and other issues relating to the implementation of the Convention by Parties included in Annex I to the Convention”, FCCC/SBI/2007/INF.6/Add.2, 19 November 2007, paras. 27 ff.

¹¹⁹ See http://www.gefweb.org/Documents/enabling_activity_projects/documents/GEF-C22-Inf16.pdf for the text of these procedures.

consultations in preparation of the project proposals. That such amounts should be determined by the GEF alone is contrary to the obligation of developed countries to provide “agreed full cost” funding for the preparation of national communications. This has been one of the most contentious issues under continued negotiations on the matter of developing country national communications under the Convention.¹²⁰

With respect to the obligation to provide “new and additional” financial resources to cover the “agreed full incremental costs” for the implementation by developing countries of their UNFCCC commitments under Article 4.1, it is difficult to ascertain with exactitude on the basis of the developed Parties’ national communications whether such obligation has been fully complied with. This is primarily because of the difficulty in obtaining comparable data from the Parties concerned.

A majority of the developed country parties have reported an increase in their contributions to multilateral institutions, as well as the GEF, for the period reported in the fourth national communications (generally, 2001-2003, with the exception of some who were able to report on 2004 as well) as compared to those reported in the third national communications. Bilateral and regional development assistance with regard to mitigation also increased, with the energy and transport sectors receiving the largest share of assistance, while total bilateral contributions for adaptation-related activities remained broadly stable, going mostly to capacity-building activities.

Financing from developed countries with regard to adaptation is notably lower than contributions relating to mitigation. Developed countries’ mitigation-related bilateral financing increased from US\$13.05 billion during the period 1997-2000 to US\$285.04 billion for the period 2001-2004, while their financing for adaptation fell from US\$7 billion in 1997-2000 to US\$362.1 million in 2001-2004. This is due in large part to a massive increase in reported bilateral financing for mitigation by the United States from US\$2.42 billion for 1997-2000 to US\$276.684 billion for 2001-2004. However, such increase in reported US bilateral climate-related mitigation financing is artificial and involves multiple cases of padding, double-counting, and aggregate-counting due to the fact that the US counted as mitigation financing not only direct environment-related Official Development Assistance (ODA) flows¹²¹ but also its trade and development-related ODA such as project financing, export credits, risk and loan guarantees, investment insurance and credit enhancements that “facilitate the transfer of climate-friendly technology,” as well as some US private sector commercial investments and lending.

Indeed, the US is not an isolated case, although it seems to be the most egregious in terms of artificially enhancing the reported extent of its climate financing flows. It is important to note that ***virtually all of the financing that Annex II Parties reported in their fourth national communications (save for Italy for some of its financing) as compliance with their UNFCCC Articles 4.3, 4.4 and 4.5 financing obligations form part of these Parties’ overall official development assistance (ODA) programmes rather than being “new***

¹²⁰ See e.g. the views of developing countries generally critical of GEF performance on this issue of providing support for the preparation of developing country NCC’s under Article 4.3, such as Saudi Arabia and Uruguay, in FCCC/SBI/2007/MISC.13; Brazil, Jamaica and Paraguay, in FCCC/SBI/2007/MISC.13/Add.1.

¹²¹ Such as those for USAID’s climate change programme (US\$2.6 billion since 1991), US contributions to the GEF, US contributions to multilateral environmental agreements such as the Montreal Protocol and the UNFCCC, bilateral environment-related projects, etc. See the US’s 4th national communication for a listing.

and additional”¹²² (see table 3). In essence, developed countries’ financial flows that go towards meeting their internationally agreed goal of providing at least 0.7 per cent of their annual Gross National Income (GNI) as ODA are double-counted as also going towards meeting their treaty obligations under UNFCCC Articles 4.3, 4.4 and 4.5 to provide climate financing to developing countries. In this context, therefore, such financial flows are neither new, additional, nor, indeed, mandatory in nature.

However, doing so – i.e. counting ODA financing as UNFCCC-compliant climate financing – is not consistent with UNFCCC Article 4.3 because such climate financing must be new and additional. As the Group of 77 and China has stressed, climate financing must be “new and additional ... which is over and above ODA.” Furthermore, ODA by its very nature is voluntary. The climate financing commitment under UNFCCC Article 4.3 is mandatory.

In effect, by double-counting ODA as climate financing, developed countries are essentially reflecting and responding to their own priorities relating to development assistance and climate financing rather than to the priorities and needs of developing countries. This in essence undermines the balance contained in the UNFCCC with respect to the climate financing needs of developing countries and the climate financing obligations of developed countries.

Mixing ODA flows for development projects and financial flows for climate adaptation and mitigation makes it difficult to obtain a clear picture of the extent to which Annex I Parties are complying effectively with their UNFCCC obligation to provide new and additional climate financing to support developing country implementation of their UNFCCC obligations.

ii. Data Relating to Compliance with Article 4.4

The picture painted by Annex II Parties’ national communications and the various data from different funds pertaining to adaptation is a mixed one.

Similar to the difficulties in obtaining comparable data in relation to Article 4.3 compliance, Article 4.4-related data is also difficult to assess in relation to the extent to which Article 4.4 is being complied with due to the general lack of comparable data from Annex II Parties. *But, based purely on the fourth national communications from Annex II Parties, the yearly contribution to climate change adaptation funding fluctuates year on year and has not seen a yearly increase in most countries.*

iii. Other Considerations Relating to Compliance with the Financing Obligation under Article 4.3 and 4.4

With respect to the agreed full incremental costs of developing countries to implement their common commitments under Article 4.1, the UNFCCC secretariat’s estimated annual cost requirements to fund adaptation, mitigation and technology transfer for developing countries in

¹²² With regard to “new and additional” financial contributions, no universal interpretation to the term appears to exist, as seven Annex II parties considered their contributions to the GEF as part of this category, while two linked their new and additional contributions to pledges made in Bonn Agreements. Two other parties chose to report certain contributions as “new and additional” as well, without identifying the reasons behind such a classification. Some countries merely chose to specify the total amount of bilateral and regional development assistance contributed without indicating all the recipients and which ones in particular are given funds for mitigation and/or adaptation.

an update of its 2007 report on investment and financial flows to address climate change¹²³ are as follows:

Table 4: Estimated Annual Financial Requirements for Adaptation, Mitigation and Technology Transfer for Developing Countries

Adaptation	Mitigation	Technology Transfer
<p>US\$ 27.75-58.25 billion annually in 2030 for developing countries (calculated from the proportion needed in developing countries as indicated in Table 5, FCCC/TP/2008/7, p. 19).</p> <p>The UNFCCC estimate globally for annual adaptation costs is US\$49-171 billion.</p>	<p>US\$52.40 billion annually in 2030 for developing countries (calculated from the proportion needed in developing countries as indicated in Table 4, FCCC/TP/2008/7, p. 18) without including the amount required for investments in technology research, development and deployment of climate technology in developing countries. The UNFCCC Secretariat paper seems to assume that all the costs for the technology transfer-related research, development and deployment for climate technology will go solely to developed countries.</p>	<p>US\$6-41 billion annually up to 2030 for <u>deployment of technologies</u> to developing countries (US\$25-163 billion globally). (see Table 17, FCCC/TP/2008/7, p. 57)</p> <p>US\$176-464 billion annually up to 2030 for diffusion and commercial transfer in developing countries (US\$380 billion to US\$1 trillion globally). (see Table 17, FCCC/TP/2008/7, p. 57)</p> <p>For <u>research and development</u>, global cost estimates amount to US\$10-100 billion annually up to 2030, and for <u>technology demonstration</u>, US\$27-36 billion annually up to 2030 globally. (see Table 17, FCCC/TP/2008/7, p. 57)</p> <p>The UNFCCC Secretariat paper did not put any estimates of the costs that need to be financed in developing countries with respect to climate technology research and development, implying that R&D is done <u>only</u> in developed countries. However, for developing countries, support for endogenous R&D is an important and integral component in any technology transfer under the UNFCCC.¹²⁴</p>
<p>The total UNFCCC estimated annual financial requirements for adaptation, mitigation and technology transfer for developing countries -- which <u>may still be on the low-end</u> in any case due to omissions with respect to technology R&D and demonstration -- would be:</p> <p style="text-align: center;">US\$262.15 billion – US\$615.65 billion annually by 2030</p>		

¹²³ See UNFCCC, “Investment and financial flows to address climate change: an update”, FCCC/TP/2008/7, 26 November 2008. Available from <http://unfccc.int/resource/docs/2008/tp/07.pdf>.

¹²⁴ See e.g. the G77 and China’s August 2008 proposal for a technology transfer mechanism which clearly states that financing should also be provided for technology research and development in developing countries.

Table 5: What is Currently Available or Estimated to be Made Available to Developing Countries under the GEF As an Operating Entity for the UNFCCC's Financial Mechanism

Adaptation	<p>US\$ 50 million – GEF Trust Fund: Strategic Priority for Adaptation</p> <p>US\$ 90.3 million – Special Climate Change Fund (SCCF, GEF administered)</p> <p>US\$ 172.0 million – Least Developed Countries Fund (GEF administered)</p> <p>US\$ 80–300 million per year for the period 2008-2012 from the 2% share of the proceeds of annual sales of certified emissions reductions from Clean Development Mechanism (CDM) projects – Adaptation Fund; current funding estimated at US\$91.3 million</p>
Mitigation	<p>US\$ 1,030 million from the GEF 4th Replenishment for the period 2006-2010, of which US\$352 million is already committed</p> <p>US\$ 154 million – GEF 4 special programme on LULUCF</p> <p>US\$ 8,400 million – Market value of expected emissions reductions from CDM projects during 2007</p> <p>US\$ 41 million – Market value of expected emissions reductions from Joint Implementation (JI) projects during 2007</p>
Technology Transfer	<p>The GEF estimates that 80-100 per cent of GEF climate change mitigation funding fits the technology transfer definitions used by the Convention (see FCCC/SBI/2007/21, Table 2 and para. 62)</p> <p>US\$ 16.2 million were available from the SCCF for the programme for transfer of technology</p>
Total through the GEF	US\$10.03 billion to 10.25 billion

* Unless otherwise indicated, the source for all figures in this table is the UNFCCC secretariat report, FCCC/TP/2008/7, Table 28 (figures are rounded off).

Even solemnly made political commitments by some Annex I Parties in relation to the provision of climate change funding to developing countries have not been met. For example, on 23 July 2001, at the closing plenary of COP6bis in Bonn, Germany, Belgium on behalf of 20 Annex II Parties¹²⁵ presented a Joint “Political Declaration on Financial Support for Developing Countries” in which they stated as follows:

We reaffirm our strong political commitment to climate change funding for developing countries. We are prepared to contribute US\$ 410 million, which is 450 million Euros, per year by 2005 with this level to be reviewed in 2008. Funding to be counted on can include: contributions to GEF climate change related activities; bilateral and multilateral funding, additional to current levels; funding for the special climate change fund, the Kyoto Protocol Adaptation Fund and the LDC fund; and funding deriving from the share of proceeds of the clean development mechanism, following entry into force of the Kyoto Protocol.¹²⁶

¹²⁵ These were the EU-15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom; plus Canada, Iceland, New Zealand, Norway, and Switzerland.

¹²⁶ See UNFCCC, “Statements made in connection with the approval of the Bonn Agreements on the implementation of the Buenos Aires Plan of Action” (decision 5/CP.6), FCCC/CP/2001/MISC.4, 23 October 2001, pp. 6-7.

A study assessing the level of implementation by the 15 European Union Member States that are party to the joint declaration concluded that these Annex II Parties fall “well short of the level of USD 369 million to which they committed themselves” in terms of specific multilateral climate change related funding and that information of other climate change financing flows from these Parties is “insufficient to enable even an informed observer to make a reliable judgment about the volume of aid additional to 2001 levels that is effectively being provided at the present time.”¹²⁷

In fact, the amounts pledged or to be committed from Annex II Parties for climate financing remain far too low to meet the scale of the financing needs of developing countries in relation to climate adaptation and mitigation. The UNFCCC estimates that US\$262.15 – 615.65 billion annually by 2030, while the G-77 and China in their August 2008 climate finance proposal has suggested that initially (as a minimum) at least US\$278.82 billion to US\$557.64 billion (based on the 2007 GDP of Annex I Parties), will be needed. Currently, climate-related funds under the GEF amounts to US\$10.03 billion to US\$10.25 billion, while US\$18.95 billion (including US\$6.68 billion in bilateral initiatives and US\$12.27 billion through multilateral initiatives) in climate-related financing may be forthcoming from Annex II Parties’ individual climate financing initiatives, with approximately US\$4.8082 billion annually being made available as a result of these initiatives over varying time periods. That is, climate financing that is available or may be made available by Annex II Parties in the foreseeable future are a little over one-tenth of the minimum estimated requirements for climate financing coming from the UNFCCC or the G77 and China.

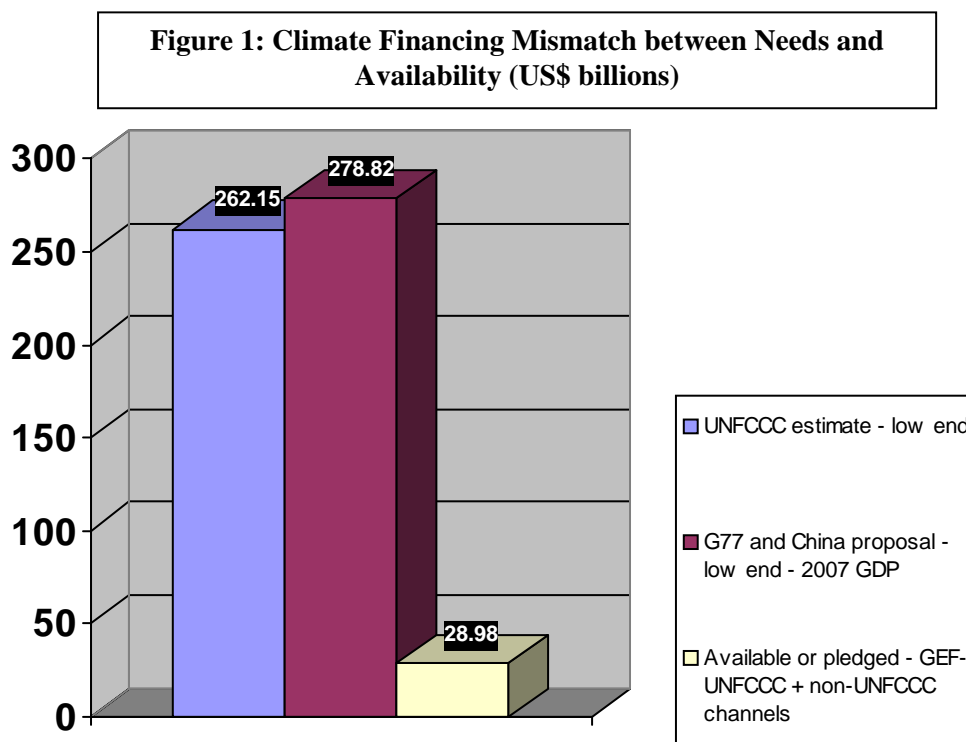
**Table 6: Public Climate Financing
through Non-UNFCCC Channels from Annex II Parties**

Non-UNFCCC Channel	Estimated Amount
Bilateral	US\$6.68 billion
Multilateral	US\$12.27 billion
Total	US\$18.95 billion (with approximately US\$4.81 billion annually being made available as a result of these initiatives over varying time periods)

Source: FCCC/TP/2008/7, Table 29 (figures are rounded off)

As can be seen below, the total of currently available or pledged public sector financing from Annex I Parties, whether through the GEF (as an operating entity for the UNFCCC’s financial mechanism) or through bilateral or other non-UNFCCC multilateral channels, fall far short of current estimates for annual climate financing requirements (whether based on the UNFCCC paper or the G-77 and China financial mechanism proposal). Much more scaling up of public sector financing from Annex II Parties therefore needs to be undertaken in order to meet climate financing requirements.

¹²⁷ See Marc Pallemarts and Jonathan Armstrong, “Financial Support to Developing Countries for Climate Change Mitigation and Adaptation: Is the EU Meeting its Commitments?”, Institute for European Environmental Policy Paper (28 January 2009). Available from http://ccsl.iccip.net/sds_paper_funding.pdf



Source: South Centre calculations

The problem is also not simply limited to the severe funding shortfall evident in both UNFCCC (through the GEF) and non-UNFCCC channels. A major part of the problem relating to current public climate financing from developed countries is that regardless of the delivery channel, these are voluntary and are not directly accountable to the UNFCCC COP. As such, currently available public financing for climate action from developed countries (whether channeled through the GEF or not) does not, and cannot, be compliant with the criteria of predictability and adequacy of financing that is required under Article 4.3 of the Convention. The nature of voluntary financing is directly inconsistent with the mandatory nature of the financing commitments for developed country Parties under the UNFCCC.

Furthermore, it is not clear to what extent such voluntary financing (again whether through the GEF or other non-UNFCCC channels) complies with the COP's guidelines on such financing's consistency with COP policies, programme priorities and eligibility criteria, and on non-introduction of new forms of conditionalities.¹²⁸ For example, in relation to the GEF, the COP has had to issue additional guidance at virtually every session to the GEF, thereby indicating that qualitative deficiencies in the GEF's performance as an operating entity for the UNFCCC's financial mechanism continue to persist. Critiques of the GEF's performance as an operating entity generally relate to, inter alia, the simplicity and efficiency of its funding procedures and the equitable distribution of GEF funding to developing country

¹²⁸ Decision 11/CP.1, paragraph 2(a) states as follows: "**Consistency should be sought and maintained between activities (including those related to funding) relevant to climate change undertaken outside the framework of the financial mechanism and the policies, programme priorities and eligibility criteria for activities as relevant, established by the Conference of the Parties.** Towards this end and in the context of Article 11.5 of the Convention, the secretariat should collect information from multilateral and regional financial institutions on activities undertaken in implementation of Article 4.1 and Article 12 of the Convention; **this should not introduce new forms of conditionalities.**" (emphasis added)

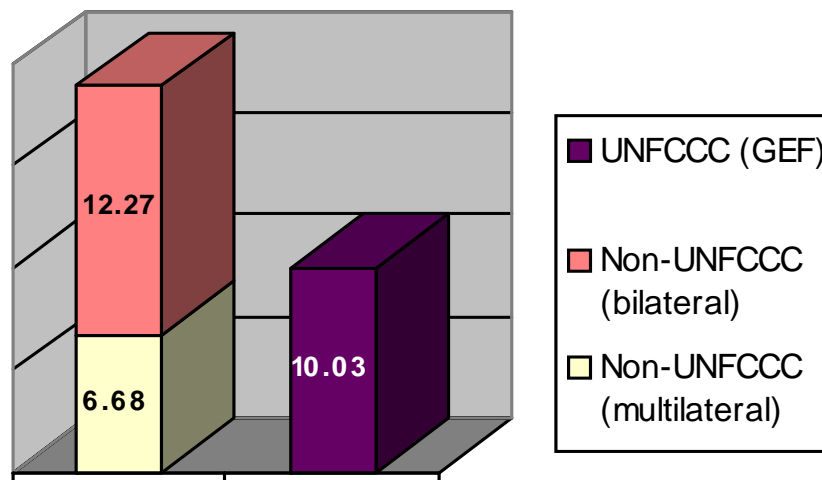
Parties, especially least-developed countries (LDCs) and small island developing states (SIDS).¹²⁹

Developed countries also show a great reluctance to channel climate financing sourced from their governmental funds through the UNFCCC, preferring to use either their own bilateral channels or other multilateral channels such as the World Bank as their vehicles for public sector climate financing flows. They also show a preference for relying on unpredictable and market-driven private sector financing. The public financing from developed countries for climate change-related actions that go through non-UNFCCC channels, and such financing that do go through the UNFCCC's financial mechanism (via the GEF as an operating entity), reflect and respond to the donors' political and economic priorities and interests rather than to the sustainable development priorities of developing countries.

Counting the low-end estimate of US\$10.03 billion channeled or made available through the GEF as an operating entity of the UNFCCC's Article 11 financial mechanism as well as those through bilateral and other non-UNFCCC multilateral mechanisms (US\$18.95 billion), the current total available or pledged public financing for climate change-related actions from Annex I Parties comes up to US\$28.98 billion. Of this total amount, 34.61 per cent is through the UNFCCC (via the GEF as an operating entity) and 65.39 per cent is through non-UNFCCC channels (see Figure 2). This is inconsistent with the provisions of UNFCCC Article 11, which envisions that climate change-related financing should primarily flow through the financial mechanism established in Article 11.

¹²⁹ These critiques are implicitly reflected in, for example, COP Decision 3/CP.12's paragraphs 1(a) and (b) and 2(a), (b) and (d) with respect to the COP's request and invitation to the GEF to further simplify and improve the efficiency of its procedures and processes as well as the last preambular paragraph of the same Decision "noting the concerns expressed by developing country Parties over the implications of the requirements for co-financing, in particular in adaptation project activities", and paragraph 3 urging the GEF "to provide further funding, in a more timely manner, to the developing country Parties, in particular the least developed countries and small island developing States..." The difficulties that developing country Parties have with the GEF were already being experienced since the beginning, as can be seen in the fifth preambular paragraph of COP Decision 11/CP.2 (which was adopted in July 1996, the second year after the UNFCCC entered into force), which expressed concern over the difficulties encountered by developing country Parties in receiving the necessary financial assistance from the Global Environment Facility owing to, *inter alia*, "the application of the Global Environment Facility operational policies on eligibility criteria, disbursement, project cycle and approval, the application of its concept of incremental costs, and guidelines which impose considerable administrative and financial costs on developing country Parties."

Figure 2: Public Sector Climate Financing from Some Annex I Parties – Clear Preference for Non-UNFCCC Channels (in US\$ billions)



Source: South Centre calculations

Many Annex II Parties justify their reluctance to channel such financing through the UNFCCC by arguing that the UNFCCC is not set up institutionally to handle massive financial flows, and that other multilateral institutions such as the World Bank are better equipped and have more expertise in handling such flows. However, considering that the UNFCCC is the sole virtually universal multilateral policy and institutional regime providing the legitimate framework for global action on climate change, climate financing should be channeled through the UNFCCC's financial mechanism and its capacity to handle such flows should be further enhanced.

Existing modalities under which climate financing is being provided by developed countries have the effect of weakening the UNFCCC in terms of its effectiveness as a normative legal regime for global action on climate change and in terms of the effectiveness of its financial mechanism as a catalyst and vehicle for climate financing that is consistent with and supports the objectives of the UNFCCC.

c. Article 4.5 – Transferring Technology to Developing Countries

Article 4.5 commits developed countries to:

- take all practicable steps to promote, facilitate and finance the transfer of, or access to, environmentally sound technologies and know-how to developing country Parties to enable implementation of the UNFCCC; and
- support the development and enhancement of endogenous capacities and technologies of developing country Parties.

The extent of compliance by developed countries with this treaty commitment has also been a subject of much discussion among the Parties. The UNFCCC's Conference of the Parties (COP) has, in various sessions, discussed the issue of the implementation of Article 4.5, with various

decisions coming out that laid down specific actions to be undertaken by Parties, the secretariat, and the subsidiary bodies. Of particular importance is Decision 4/CP.7¹³⁰ which established a framework for “meaningful and effective actions to enhance the implementation” of UNFCCC Article 4.5 “by increasing and improving the transfer of and access to environmentally sound technologies (ESTs) and know-how.” The decision’s annex identified five themes around which such “meaningful and effective actions” would be undertaken. These are on:

- Technology needs and needs assessments;
- Technology information;
- Enabling environments;
- Capacity building; and
- Mechanisms for technology transfer.

In its 2007 report, the UNFCCC Expert Group on Technology Transfer (EGTT) concluded that discussions relating to technology transfer in the UNFCCC “should evolve to a more practical, results-oriented level by promoting actions in specific sectors and regions”.¹³¹ *The EGTT in effect implied that to date, the UNFCCC’s technology transfer-related provisions really have not yet been implemented by developed country Parties.*¹³²

In surveying the extent to which developed countries subject to the obligation to transfer technology under Article 4.5, assessing the extent of compliance with obligations relating to technology transfer under the UNFCCC can be quite difficult to measure due to the difficulty in having comparable data sets and the ambiguity that often results, specifically from the transfer of soft technologies. Contributions related to capacity building are also often counted among financial contributions either bilaterally or multilaterally, and so it is quite possible for those funds to be double-counted. It is also made more complicated by the fact that it is hard to place monetary value on soft technology transfer, such as information sharing or technical demonstrations. Original promises by developed countries are also extremely vague, simply noting that developed countries should help developing countries with climate change adaptation, making it much more difficult to gauge whether or not Annex I countries have lived up to their pledges.

There are several noticeable trends concerning technology transfer, however, that can be discerned from the national communications of developed countries. The majority of technology transfer occurs in the energy sector, mainly energy efficiency and utilization of renewable energy sources. Most countries also place a much higher emphasis on the transfer of soft technology and capacity building in the programmes that they establish rather than on the transfer of hard technologies such as wind technologies, etc. The majority of technology transfer occurs through bilateral partnerships with countries, and often includes both soft and hard technology transfer as well as financial and technical support for initiatives that have been launched in developing countries.

¹³⁰ See <http://unfccc.int/resource/docs/cop7/13a01.pdf#page=22> for the text of this decision.

¹³¹ See UNFCCC, *Expert Group on Technology Transfer: Five Years of Work* (2007), p. 12. Available from http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/egtt_en_070523.pdf.

¹³² For a discussion of Annex I Parties’ reports on their compliance with Article 4.5 as contained in their national communications, see e.g. UNFCCC, “Compilation and synthesis of fourth national communications: Addendum - Financial resources, technology transfer, vulnerability, adaptation and other issues relating to the implementation of the Convention by Parties included in Annex I to the Convention”, FCCC/SBI/2007/INF.6/Add.2, 19 November 2007, paras. 45 ff.

Table 7
Technology Transfer Activities Reported
in the Fourth National Communications of Annex II Parties
(Reporting Period 2001-2004)

Party	Number of Technology Transfer Projects or Programmes	Number of Technology Capacity-Building Projects or Programmes	Total Amounts for Technology Transfer and Capacity-Building (in currency reported)
1. Australia	2	-	AUS\$11.42 million
2. Austria	5	-	US\$18.8 million
3. Belgium	3	3	EUR0.569 million
4. Canada	1	5	CDN\$28.7 million
5. Denmark	1	2	DKK906.7 million
6. European Community	1	7	EUR98.75 million
7. Finland	2	1	EUR9.6 million
8. France	19 (no clear indication as to nature of project or programme reported)		EUR382.088 million
9. Germany	-	7	EUR6.706 million
10. Greece	Not indicated	Not indicated	US\$3 million
11. Iceland	Not indicated	Not indicated	Not indicated
12. Ireland	-	3	EUR7.304 million
13. Italy	Not indicated	Not indicated	Not indicated
14. Japan	1	2	JPY7.556 billion
15. Liechtenstein	Not indicated	Not indicated	Not indicated
16. Monaco	Not indicated	Not indicated	Not indicated
17. Netherlands	-	3	EUR7.8 million
18. New Zealand	1	-	NZ\$0.111 million
19. Norway	-	2	No data
20. Portugal	-	2	No data
21. Spain	Not indicated	Not indicated	Not indicated
22. Sweden	-	3	No data
23. Switzerland	2	3	CHF13.25 million
24. United Kingdom	-	1	GBP3.5 million
25. United States	-	4	US\$42.25 million

Source: South Centre calculations using data sources from the relevant fourth national communications of the Annex II Parties, all of which are available at http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/3625.php

d. Article 4.8 and 4.9 – Addressing the Adverse Effects of Climate Change and the Impacts of the Implementation of Response Measures

Article 4.8 requires developed countries, in implementing their Article 4 commitments, to “give full consideration to what actions are necessary under the Convention, including actions related to funding, insurance and the transfer of technology, to meet the specific needs and concerns of developing country Parties arising from the adverse effects of climate change and/or the impact of the implementation of response measures, especially on:

- “(a) Small island countries;
- “(b) Countries with low-lying coastal areas;

- “ (c) Countries with arid and semi-arid areas, forested areas and areas liable to forest decay;
- “ (d) Countries with areas prone to natural disasters;
- “ (e) Countries with areas liable to drought and desertification;
- “(f) Countries with areas of high urban atmospheric pollution;
- “(g) Countries with areas with fragile ecosystems, including mountainous ecosystems;
- “(h) Countries whose economies are highly dependent on income generated from the production, processing and export, and/or on consumption of fossil fuels and associated energy-intensive products; and
- “(i) Land-locked and transit countries”

Article 4.9 also requires developed country Parties to “take full account of the specific needs and special situations of the least developed countries in their actions with regard to funding and transfer of technology.” These two UNFCCC provisions are further supplemented by Articles 2.3 and 3.14 of the Kyoto Protocol.

The reference to the addressing the “adverse effects of climate change” is with respect to the commitment of developed countries, in connection with Article 4.4, to assist developing countries in adapting to the adverse effects of climate change. In this connection, the COP in 2001 decided to mandate that various adaptation-related implementation activities would be supported by the Global Environment Facility and other bilateral and multilateral sources.¹³³ In 2005, the COP supplemented Decision 5/CP.7’s provisions relating to adaptation by establishing the Nairobi Work Programme on Adaptation to be carried out by the Subsidiary Body on Scientific and Technological Advice (SBSTA) – this work programme is focused on enhancing cooperation relating to scientific climate change adaptation-related information in order to improve the Parties’ understanding and assessment of impacts, vulnerability and adaptation to serve as the basis for decision-making.¹³⁴

Another reference in Article 4.8 that is important to consider is that with respect to the “impact of the implementation of response measures” on developing country Parties. This issue was also dealt with by Decision 5/CP.7,¹³⁵ which also established the LDC Fund under the UNFCCC’s financial mechanism that would support the work programme for LDCs under Article 4.9, including their preparation of their national action plans for adaptation.¹³⁶

The existence of gaps in implementing Decision 5/CP.7 in relation to the adaptation and response measures led the COP in 2004, through Decision 1/CP.10, to further decide that the Parties should enhance their implementation of Articles 4.8 and 4.9.¹³⁷

To date, however, implementation gaps by developed countries continue to exist with respect to their implementation of their commitments under Articles 4.8 and 4.9. For example, the LDC Fund remains severely underfunded, with only US\$172 million as of mid-2008.

¹³³ See FCCC/CP/2001/13/Add.1, Decision 5/CP.7, paras. 7 and 8.

¹³⁴ See FCCC/CP/2005/5/Add.1, Decision 2/CP.11. For a discussion of the contents of the Nairobi Work Programme, see UNFCCC, *The Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change* (2007). Available from http://unfccc.int/files/adaptation/sbsta_agenda_item_adaptation/application/pdf/nwp_brochure.pdf.

¹³⁵ See FCCC/CP/2011/13/Add.1, Decision 5/CP.7, paras. 20-29.

¹³⁶ *Ibid.*, paras. 11-17.

¹³⁷ See FCCC/CP/2004/10/Add.1, Decision 1/CP.10. Preambular paragraph 3 of decision 1/CP.10 explicitly acknowledged that “there is a need to further implement decision 5/CP.7 in order to address the gaps in implementation that remain.”

Total adaptation financing made available through bilateral and multilateral channels such as the GEF falls far short of the estimated adaptation financing requirement. The most recent review of adaptation financing suggests the scale of adaptation financing required globally by 2030 is likely to be in excess of \$500 billion annually.¹³⁸ The UNFCCC Secretariat's analysis (based on six underlying papers) previously suggested that the costs of adaptation in 2030 could be between \$49-71 billion per year globally, of which \$27-66 billion would be required in developing countries. However, according to more recent studies actual costs could be more than ten times greater.¹³⁹ This is for a number of reasons, including that:

- Key sectors have not been included in an assessment of cost (e.g. ecosystems, energy, manufacturing, retailing, or tourism);
- Some of those sectors that are included have been only partially covered;
- The additional costs of adaptation have sometimes been calculated as 'climate mark-ups' against low levels of assumed investment;
- None of these are substantive studies based on detailed and systematic "bottom up" actual evidence of costs of climate impacts;
- The studies are not independent but borrow heavily from each other; and
- They have not been tested by peer review in the scientific or economics literature.¹⁴⁰

To be sufficient, adaptation financing must address three key items:

- Actual costs, losses and damages associated with climate change;
- Costs of avoiding/minimizing avoidable impacts; and
- Lost and diminished development opportunities in developing countries.

Compared with what is required in the order of upwards from US\$500 billion per year in developing countries for adaptation costs, the current total amounts available in multilateral and bilateral channels for adaptation-related financing (which even include double-counted ODA) that are in the order of approximately US\$400 billion as of 2008 is grossly inadequate.

Information from Annex II Parties on the implementation of activities under Decision 5/CP.7, and on addressing the impact of response measures, have both been also inadequate. Clear information that would enable a clear judgment on progress made has not been provided.

Decision 1/CP.10 had requested the Subsidiary Body on Implementation (SBI) to consider the national communications of Parties (including Annex II Parties who were requested to provide detailed information on their implementation of Article 4.8) in relation to such impacts and the implementation of decision 5/CP.7. The SBI undertook such consideration at its twenty-seventh session in June 2007.

In a paper prepared by the UNFCCC secretariat for the SBI on the implementation of Decision 5/CP.7, it stated that there were "wide disparities in the reporting of the various

¹³⁸ Martin Parry et al., *Assessing the Costs of Adaptation to Climate Change: A Review of the UNFCCC and Other Recent Estimates*, August 2009 (Imperial College London, IIED).

¹³⁹ Ibid.

¹⁴⁰ Ibid.

types of support measures envisioned in decision 5/CP.7”¹⁴¹ and that “the national communications do not ... disaggregate the contributions in enough detail to allow analysis of which particular objectives of decision 5/CP.7 an individual country has contributed to.”¹⁴²

In any event, in relation to the implementation by Annex II Parties of Article 4.8 with respect to the impacts of response measures, the UNFCCC secretariat synthesis of national communications summarized Annex II Parties responses as follows:

- A number of Annex II Parties reported that they are undertaking research and development related to the technologies mentioned in decision 5/CP.7, paragraph 26¹⁴³
- Several Annex II Parties described in their national communications initiatives related to cooperation with developing country Parties in the development, production, distribution and transport of indigenous, less GHG-emitting, environmentally sound, energy sources, including natural gas (decision 5/CP.7, para. 28)¹⁴⁴
- Almost all Annex II Parties reported in their national communications activities in the area of support for research into, and the development and use of, renewable energy, including solar and wind energy (decision 5/CP.7, para. 29)¹⁴⁵
- Almost all Parties included in Annex II to the Convention reported on their contributions to multilateral agencies that work toward objectives related to the provisions of decision 5/CP.7¹⁴⁶
- Several Parties [such as Denmark, EC, Greece, Portugal, and United Kingdom] reported efforts to minimize adverse impacts of the implementation of response measures.¹⁴⁷

The assessment of the SBI at its June 2009 session with respect to the implementation of Article 4.8 in relation to the implementation of decisions 5/CP.7 and 1/CP.10 clearly indicates that further work needs to be done with respect to such implementation, clearly implying that implementation gaps continue to exist with respect to the implementation of Article 4.8 (as well as Article 4.9).

2. Implementation by Developing Countries of their UNFCCC Commitments

As pointed out above, developing countries have commitments in common with developed countries under Article 4.1 of the UNFCCC. However, what is important to note is that in implementing such common commitments, the principle of common but differentiated responsibilities and the specific national and regional development priorities, objectives and circumstances of the Parties should be taken into account.¹⁴⁸ Additionally, the extent to which developing countries implement such common commitments would depend on the extent to

¹⁴¹ UNFCCC, “Synthesis of available information related to the impacts of response measures under decision 1/CP.10, paragraph 20”, FCCC/SBI/2007/23, 26 September 2007, para. 23.

¹⁴² *Ibid.*, para. 19

¹⁴³ *Ibid.*, para. 10.

¹⁴⁴ *Ibid.*, para. 15.

¹⁴⁵ *Ibid.*, para. 17.

¹⁴⁶ *Ibid.*, para. 9.

¹⁴⁷ *Ibid.*, paras. 25-29.

¹⁴⁸ UNFCCC Article 4.1 chapeau.

which developed countries implement their commitments to provide financing and technology transfer for the implementation of Article 4.1 by developing countries.¹⁴⁹

These common commitments of developing countries include having to:

- provide and communicate climate change-related information;¹⁵⁰
- adopt and implement mitigation and adaptation measures;¹⁵¹
- cooperate in technology transfer, adaptation, “climate-proofing” economic, social and environmental policies and actions, research and observation, information exchange, education, training and public awareness;¹⁵² and
- communicate information regarding the Party’s implementation of the UNFCCC¹⁵³

With respect to providing climate change-related and UNFCCC implementation-related information, developing countries have by and large done so within the limits of their respective capacities. As of 1 April 2005, 122 developing country Parties have already submitted their initial national communications.¹⁵⁴ Guidelines for the preparation of initial NCCs from developing country Parties were adopted at COP 2 in Geneva in 1996. COP 5 (Bonn, 1999) established a Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE) in order to improve the process of preparation of such NCCs. At COP 8 (New Delhi, 2002) Parties adopted Decision 17/CP.8 providing for the revised guidelines for the preparation of developing country Parties’ NCCs and decided to continue the mandate of the CGE.¹⁵⁵ COP 11 took a decision on the submission of second, and where appropriate, third NCCs from developing country Parties.¹⁵⁶ The preparation of second and, where appropriate third and initial NCCs will be based on the revised guidelines for NCCs by developing country Parties.

The consideration of the information contained in these national communications from developing countries submitted under Article 12.1 is done differently from that of the national communications of developed countries submitted under Article 12.1, 12.2 and 12.3 – i.e. with respect to Article 12.1 national communications of developing countries, the SBI is to “assess the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change”¹⁵⁷ whereas with respect to developed countries’ national communications, the consideration of the SBI should be in order to assist the COP carry out the review required under Article 4.2(d) of the adequacy of developed countries’ mitigation commitments under Article 4.2(a) and (b)¹⁵⁸.

¹⁴⁹ UNFCCC Article 4.7 in relation to Articles 4.3, 4.4 and 4.5.

¹⁵⁰ UNFCCC Article 4.1(a).

¹⁵¹ UNFCCC Article 4.1(b).

¹⁵² UNFCCC Article 4.1(c) to (i), 5 and 6.

¹⁵³ UNFCCC Article 4.1(j) and 12.1.

¹⁵⁴ Article 12.5 specifies that developing country Parties shall make their initial national communications within three years from the entry into force of the UNFCCC or of the availability of financial resources for national communications provided by developed countries under Article 4.3.

¹⁵⁵ See <http://unfccc.int/resource/docs/cop8/07a02.pdf#page=2> for the text of Decision 17/CP.8. The secretariat has produced a user manual to facilitate the usage of the new guidelines, available in 3 UN languages (English - http://unfccc.int/resource/userman_nc.pdf, French - http://unfccc.int/resource/userman_nc_fr.pdf, and Spanish - http://unfccc.int/resource/userman_nc_es.pdf).

¹⁵⁶ See Decision 8/CP.11.

¹⁵⁷ UNFCCC Article 10.2(a).

¹⁵⁸ UNFCCC Article 10.2(b).

Developing countries Parties have provided vast amounts of information in their national communications. Their implementation of Article 4.1 have been largely in the following areas:

- sustainable development and the integration of climate change concerns into medium- and long-term planning;
- preparation of inventories of anthropogenic emissions by sources and removals by sinks of greenhouse gases;
- undertaking measures contributing to addressing climate change;
- undertaking and cooperating in research and systematic observation;
- assessing climate change impacts and undertaking adaptation measures and response strategies; and
- education, training and public awareness.¹⁵⁹

For many developing country Parties, poverty reduction continues to be their overriding aim.¹⁶⁰ In doing so, they have noted that their emissions are still likely to grow commensurate with economic growth.

Developing countries do not have quantified emission reduction targets linked to a base year similar to what developed countries have under Article 4.2(a) and (b). Instead, developing countries are committed under Article 4.1(b) to formulate and implement national mitigation and adaptation measures, taking into account their specific needs and development priorities.

As of 1994, the total greenhouse gas emissions, excluding LULUCF, reported by 122 developing country Parties amounted to 11.7 GTCO₂eq.¹⁶¹ Most developing countries reported that they were net greenhouse gas emitters, but 29 countries reported that they were net greenhouse gas sinks and 36 indicated that their removals of greenhouse gases by sinks exceeded their total emissions.¹⁶²

Developing countries also reported a wide range of measures to address climate change, with most indicating that “the principles of sustainable development were used to guide the assessment of options for abating the increase of GHG emissions and enhancing sinks.”¹⁶³ In this regard, developing countries’ choice of measures was “influenced by key national circumstances relating to population, natural resource endowment, geography, and political and economic structures as well as national priorities such as poverty alleviation, and provision of access to basic facilities and health issues, as well as financial and technological considerations.”¹⁶⁴

Most developing countries that submitted national communications indicated that their technical and institutional capacities were inadequate for meeting their reporting obligations under the UNFCCC regarding national GHG inventories.¹⁶⁵

¹⁵⁹ See e.g. UNFCCC, “Sixth compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention”, FCCC/SBI/2005/18, 25 October 2005.

¹⁶⁰ *Ibid.*, para. 24.

¹⁶¹ *Ibid.*, para. 36. See also FCCC/SBI/2005/18/Add.1, para. 23.

¹⁶² FCCC/SBI/2005/18/Add.1, para. 21.

¹⁶³ FCCC/SBI/2005/18, para. 42.

¹⁶⁴ *Ibid.*

¹⁶⁵ *Ibid.*, para. 86.

The ineffective and insufficient implementation by developed countries of their financial and technology transfer commitments under Articles 4.3, 4.4, and 4.5 and in respect to Article 4.7 can be clearly seen in developing countries' national communications that stressed the need for financial and technological support.¹⁶⁶

D. Ensuring Compliance – The Linkage Between Climate Change and Human Rights Law

The UNFCCC as a treaty regime is not sanctions-based in terms of its enforcement and compliance mechanism. It relies on a regime of transparency through a system of reporting – i.e. the national communications under Articles 4.1(h) and 12 – and review – first by the SBI under Article 10 and then by the COP.

UNFCCC Articles 13 and 14 which currently do not contemplate or provide for binding punitive sanctions as a modality for addressing non-compliance could be amended in order to explicitly provide for such binding punitive sanctions. Note that even under the Kyoto Protocol's Article 18, addressing non-compliance issues by modalities that would have "binding consequences" would need to be done pursuant to an amendment to the KP – although the Kyoto Protocol does have a compliance regime in which the penalty for non-compliance would be ineligibility to participate in the Kyoto Protocol's flexibility mechanisms and having to undertake more emission reductions in the commitment period subsequent to the one in which the non-compliance was found. For example, in 2008, the Compliance Committee under the Kyoto Protocol declared Greece "to be in non-compliance with its obligations under the Kyoto Protocol and not eligible to participate in the (trading) mechanisms."¹⁶⁷

In any event, the lack of a strong enforcement and compliance policy regime under the UNFCCC does not excuse countries which are Parties to the UNFCCC from ensuring that they do comply with their obligations under that treaty. This is particularly true where such obligations also affect their compliance with their human rights obligations. In other words, if an act attributable to a state breaches the respective frameworks of the UNFCCC and international human rights law, it will be very difficult for a state to argue that state responsibility does not arise.

The international law on state responsibility contains the rules for finding states responsible for any violation of international law. Traditionally, state responsibility relies on the existence of specific legally binding obligations. When such obligations are violated by the action of a state to whom they apply and in a manner which the internationally wrongful action can be attributed to that state, we say that state responsibility has been incurred.

The law on state responsibility thus supports the primary rules established by the UNFCCC which we have outlined in Section II A. It also serves to provide injured states with a right to restitution and compensation.¹⁶⁸ The International Law Commission (ILC) has agreed that states may be responsible when they commit an internationally wrongful act and that such responsibility entails consequences. The ILC has considered state responsibility in

¹⁶⁶ See e.g. *ibid.*, paras. 86, 89, 90, 93, 95, 98, 100.

¹⁶⁷ Decision of the Compliance Committee adopted at its meeting on 16-17 April 2008.

¹⁶⁸ C. Voigt, "State Responsibility for Climate Change Damages," 77 *Nordic Journal of International Law* 1-2, (2008) pp. 2-3.

the Draft Articles on the Responsibility of States for Internationally Wrongful Acts (Draft Articles on State Responsibility), reflecting customary international law.¹⁶⁹ While these articles discuss the general principles of state responsibility they do not provide the substantive qualities of responsibility nor exclude the *lex specialis* of principles, such as the principle of differential treatment.

The consequences of state responsibility for violations of legal obligations are established by general international law. If an international obligation is violated a state must, in the first instance end an act that is violating an international obligation. In addition the state committing the internationally wrongful act return the situation to what is was before violation, if possible, and pay compensation. In addition, the state committing the internationally wrongful act as well as every other state in the international community must not recognize the internationally wrongful act or the situation it creates.

These consequences are elaborated in extensive practice that is summarized in articles 29 through 37 of the ILC Draft Articles on State Responsibility.¹⁷⁰ They are legal consequences that have been recognized by international tribunals.¹⁷¹ They are amenable to application by international tribunals dealing with climate change damage claims and could be applied by a tribunal addressing a states' responsibility for violations of human rights due to its contribution to the adverse effects of climate change.

One of the most significant achievements of international human rights law is that it not only provides normative prescriptions, but often also the mechanisms with authority to interpret the norms. Some of these bodies (the European Court of Human Rights, the African Court of Human and Peoples' Rights, the inter-American Court of Human Rights and the European Court of Justice) interpret and apply the norms with legally binding force. Others (the eight United Nations treaty bodies, the African Commission on Human and Peoples' Rights, the Inter-American Commission, and the ILO and UNESCO Committees) interpret the law authoritatively, but not with legally binding authority.

In the case of treaty bodies, state Parties to human rights treaties are required to submit reports, which are examined by the relevant treaty monitoring body.¹⁷² Several human rights treaties also provide for optional individual complaint mechanisms, through which victims can hold their government accountable for failing to comply with their legal obligations to ensure human rights standards.

One of the main accountability gaps exists in a lack of mechanisms to hold governments accountable for their international obligations to protect, respect and fulfill human rights through international assistance and cooperation. Hunt and Khosla have pointed out that the lack of accountability mechanisms that would consider the impact of developed country's policies with regard to the right to health in developing countries is unacceptable "because human rights require effective, transparent and accessible accountability mechanisms in relation to all human rights responsibilities and all actors, including high income states"

¹⁶⁹ Draft Articles on State Responsibility.

¹⁷⁰ Ibid.

¹⁷¹ See, for example, *Chorzów Factory Case*, Permanent Court of International Justice, Ser. A, No. 17, p. 46 (1928).

¹⁷² See, e.g., Committee on Economic, Social and Cultural Rights, Rules of Procedure of the Committee: Provisional Rules of Procedure, Adopted by the Committee at its Third Session, 17, UN Doc. E/C.12/1990/4/Rev.1 (1 September 1993).

responsibility of international assistance and cooperation in health.”¹⁷³ Nevertheless, this situation may change as climate change is becoming an ever greater threat to internationally protected human rights while an increasing amount of evidence is being produced that links this threat to human activities. For example, as to the millions or even billions of people affected by natural disasters, there is overwhelming scientific evidence that the sharp increase in climate hazards is caused by anthropogenic climate change for which developed countries bear the greatest responsibility.¹⁷⁴ Moreover, as Roda Verheyen points out, for extreme weather events the increase in risk of each event can be linked to human activities via ‘detection and attribution’ studies.¹⁷⁵

Another way of ensuring accountability may be through domestic courts. Indeed, states have international legal obligations to implement international human rights law in their domestic legal system. Although not yet directly linking climate change to human rights, a brief sampling of cases brought in national courts shows that there is already *de facto* recognition that climate change affects individuals. In Australia, for example, a local government Council was forced to consider the consequences of environmental impacts of greenhouse gas emissions from a power plant in considering a planning application for its continued operation.¹⁷⁶ The pollution that might be caused by the plant was in effect considered to threaten the quality of life of individual human being everywhere. In Nigeria several oil companies and the federal government were forced to stop gas flaring because of the damage it was causing to the environment and consequently to the human beings living in the vicinity of the oil works.¹⁷⁷ In Germany activists forced government to publicly disclose projects that it supports and which increase greenhouse gas emissions based in part on the argument that greenhouse gas emissions ultimately threaten human beings.¹⁷⁸ In Canada environmental groups have sued the government for failing to fully fulfill its obligations under the Kyoto Protocol.¹⁷⁹ While based on Canada’s legal obligations undertaken in a treaty with other states, there is, of course, the implicit link between the Kyoto Protocol and human rights—even the right to life—that is being protected by the limits on greenhouse gases. And in September 2009 a US Court of Appeals allowed a case claiming damages for greenhouse gas emissions by a power company to proceed reversing a lower court’s decision to dismiss the case.¹⁸⁰ In doing so the US Court of Appeals expressly recognized that the plaintiffs—eight states of the United States and New York City—had a *prima facie* claim for damages due to their contribution to global warming as being among “five largest emitters of carbon dioxide in the United States and . . . among the largest in the world” and because of their emission of “650 million tons per year of carbon dioxide” that is “causing and will continue to cause serious harms affecting human health and natural resources.”¹⁸¹ These decisions reflect a growing trend to use national judicial mechanisms to address the adverse effects of climate

¹⁷³ See generally, Hunt and Khosla, *supra* n. 83.

¹⁷⁴ Ibid.

¹⁷⁵ R. Verheyen, *Climate Change Damage and International Law. Prevention Duties and State Responsibility* (Leiden, Martinus Nijhoff Publishers, 2005) p.30.

¹⁷⁶ Australian Conservation Foundation v. Minister for Planning, [2004] VCAT 2029 (29 October 2004).

¹⁷⁷ *Jonah Gbemre v. Shell, et al, Federal High Court of Nigeria*, Benin Judicial District, Suit No.FHC/B/CS/53/05 (14 November 2005).

¹⁷⁸ Bundes für Umwelt- und Naturschutz Deutschland e.V., et al, v. Bundesrepublik Deutschland, Verwaltungsgericht, Berlin, Case No. VG 10 A 215.04 (10 January 2006).

¹⁷⁹ *Friends of the Earth v. Minister of the Environment*, Court File No. T-1683-07 (filed 19 September 2007).

¹⁸⁰ State of Connecticut, et al. v. American Electric Power Company Inc., et al., Docket No. 05-5104-cv, 05-5119-cv, decided 21 September 2009.

¹⁸¹ Ibid., p. 3.

change. They are also evidence that where there is the will judicial bodies can derive legal standards of responsibility from legal obligations related to climate change.

Finally, it must be noted that international human rights law can also provide a remedy where states fail to implement international human rights law in their domestic legal system. Claims can often be brought before international human rights bodies if it can be demonstrated that domestic legislation or judicial practice is inconsistent with international human rights law. As was suggested above, it is not unthinkable that human rights bodies will progressively consider the human rights implications of climate change policies, which may include the extent to which states comply with their obligations under the UNFCCC. For developing countries it will be important to point out that international human rights law requires full recognition of the principles of differentiation, including affirmative action, in relation to the allocation of responsibility for climate change-induced human rights violations.

In this regard, it must be recalled that the attribution of historical and current responsibility with respect to global warming and climate change is explicitly set out in the UNFCCC. The third paragraph of the Preamble notes that “the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions in developing countries will grow to meet their social and development needs.”

III CONCLUSION

Climate change undermines internationally protected human rights, especially in developing countries. Steep and rapid emission reductions by developed countries are necessary (possibly even leading to “negative emissions”¹⁸²) – especially for the period between now and 2050 – in order to limit the committed warming to the lower end of the range rather than the upper end, which would mitigate some of the future human rights harm projected by the IPCC.

To prevent future human rights violations, however, intensive international cooperation is needed to ensure that developing countries are able to mitigate and adapt to climate change. The threat that climate change poses to human rights will very likely amplify without increased compliance with and strengthening of the UNFCCC framework. For this reason, the legal duty of all states to cooperate to ensure that human rights are protected is a relevant obligation, as it cements the general legal obligations that states have undertaken under international climate change law and requires that the principles of equity and common but differentiated responsibilities and respective capabilities be fully respected. Legal human rights obligations also reinforce the emission reduction obligations of developed states, as well as their obligations to provide adequate finance and technology transfer to ensure that each state is able to guarantee a minimum standard of human rights protection for individuals under its jurisdiction.

A large number of legally binding human rights obligations have been agreed upon by states since the creation of the United Nations.¹⁸³ Many of these human rights treaties contain legal obligations that require states to act to protect peoples and individuals from violations of their human rights and for states to cooperate to this end. Climate change will impact a wide range of these human rights and could potentially lead to their serious and widespread violation.¹⁸⁴ Citing the Universal Declaration of Human Rights, which although not a legally binding instrument itself is a reflection of customary international law that recognizes all the rights just mentioned, the United Nations Development Programme (UNDP) has recently concluded that “[c]limate change is a human tragedy in the making. Allowing that tragedy to evolve would be a political failure that merits the description of an “outrage to the conscience of mankind.”¹⁸⁵

In this contribution we have highlighted that the full protection and promotion of human rights can only be achieved if the economic, social, political and ecological inequities that currently characterize global relationships between developed and developing countries, and their peoples are adequately addressed. This requires consistent application of the principles of differentiation and affirmative action. Indeed, equal rules when applied to subjects with unequal capacities will only tend to further strengthen the stronger subject. Treating unequals

¹⁸² This concept implies going beyond 100 percent emission reductions below 1990 levels by essentially transforming economies to be carbon-negative (and not simply carbon-neutral) – e.g. undertaking actions to create and expand carbon sinks in addition to eliminating carbon emissions, combined with actions to provide financing and technology to developing country Parties for the latter to effect deeper and more rapid emission reductions. For more on this, see e.g. Third World Network, Shared Vision and Burden Sharing in the “Global Goal”. Available from <http://unfccc.int/resource/docs/2008/smsn/ngo/039.pdf>.

¹⁸³ See C.F.J. Doebbler, *International Human Rights Law: Cases and Materials* (2004), p.51.

¹⁸⁴ See Vienna Declaration and Programme of Action, adopted at the World Conference on Human Rights, UN Doc. A/CONF.157/23 (25 June 1993), para. 5.

¹⁸⁵ HDR 2007, p. 4.

equally is just as unjust both morally and normatively as treating equals unequally.¹⁸⁶ Differentiation and affirmative action, on the other hand, avoid that the so-called universality of human rights merely becomes the mantra by which the worlds of the powerful and the powerless create hierarchies of the ‘insiders’ who enjoy human rights and ‘outsiders’ whose rights are recognized only to the extent that those who have the power will it. Differentiation is even more important in the context of climate change, because seeking to address climate change without addressing its underlying economic and ecological inequities and insisting on the application of equivalent climate-related obligations for both developed and developing countries will only result in an intensification of existing skewed, unsustainable, and unequal patterns of production and consumption in favour of the developed countries. Thus, the principles of equity and common but differentiated responsibilities and respective capabilities, and the principle of affirmative action, are perhaps the most important provisions of international law applicable to climate change.

The UNFCCC is, as stated above, a finely balanced policy regime that incorporates a set of obligations and commitments taking into account the common but differentiated responsibilities and respective capabilities of developed and developing countries in relation to climate change. As such, this regime has the potential of facilitating international cooperation to effectively mitigate the human rights consequences of climate change, including human rights consequences related to development challenges faced by developing countries. To this end, what is particularly required is that developed countries, taking into account the objective of the UNFCCC under Article 2, fulfill their obligations to: mitigate their emissions in order to modify the longer-term trends in such emissions pursuant to Article 4.2(a) and (b); and provide financing and technology transfer consistent with Articles 4.3, 4.4, 4.5 as well as 4.8 and 4.9.

Yet, as we have outlined above, developed countries have largely failed to ensure the full, effective and sustained implementation of developed countries’ commitments under the UNFCCC. These failures have legal consequences under international human rights law. Developing countries, on the other hand, have the right to expect financial support and technology transfer from developed countries to enable them to realize the human rights of their populations, including those rights that are affected by climate change. Moreover, it is only when developed countries fully comply with their UNFCCC obligations that developing countries would then be able to fully comply with their obligations to ensure the progressive fulfillment of the human rights of their population. Ultimately, in so doing, both developed and developing countries would then be in a position to fully comply with their human rights obligations under international human rights law.

Given the pertaining lack of implementation of the UNFCCC, perhaps the most important feature of the human rights approach is its inherent legal basis. As legally binding international norms, human rights are more than guiding principles with high moral value. They are rules that have been reaffirmed continuously by more than two-thirds of the international community of just under two hundred states that represent more than six billion

¹⁸⁶ This can be traced back to Aristotle’s insight that injustice also exists “when either equals have and are awarded unequal shares, or unequals equal shares.” See Aristotle, *Nicomachean Ethics* (350 BC), Book V, Chapter 3 (translated by WD Ross), at <http://classics.mit.edu/Aristotle/nicomachaen.5.v.html>. This is also implicit in John Rawls’ general conception of justice: “All social primary goods - liberty and opportunity, income and wealth, and the bases of self-respect - are to be distributed equally unless an unequal distribution of any or all of these goods is to the advantage of the least favored.” See John Rawls, *A Theory of Justice* (1971).

people on the planet earth. As such, human rights also lay at the basis of the concept of *erga omnes*,¹⁸⁷ obligations that are “owed towards the entire world and all its inhabitants.”¹⁸⁸

Ultimately, claims could be placed before international tribunals that would require it to clarify the legal obligations of states under international human rights law in relation to climate change and climate change legislation. This opportunity for encouraging timely and adequate action on climate change will become all the more viable as developed countries continue to fail to comply with their obligations under the UNFCCC and the threat to human rights intensifies as a result of this failure.

¹⁸⁷ The *erga omnes* concept was identified by the International Court of Justice inter alia in its ruling in the *Barcelona Traction* case. *Barcelona Traction, Light and Power Company, Limited (Belgium v. Spain)*, ICJ Reports 1970, p. 3, para. 33.

¹⁸⁸ C.G. Weeramantry, “Achieving Sustainable Justice Through International Law” at p. 24 in M. C. Cordonier Segger and C.G. Weeramantry, *Sustainable Justice: Reconciling Economic, Social and Environmental Law* (2005). Notably, in the same work Judge Weeramantry argues that an *erga omnes* doctrine is being developed in relation to sustainable development.



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