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“Common but Differentiated Responsibilities: An exploration of the Concepts of Equitable Evolution and Graduation within the Climate Change Treaty System”

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Research dissertation presented for the approval of Senate in fulfilment of part of the requirements for the degree of Master of Laws in approved courses and a minor dissertation. The other part of the requirement for the degree was the completion of a programme of courses.

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Declaration

I, Sakhile Koketso, do hereby declare that this minor dissertation submitted for the degree of Master of Philosophy at the University of Cape Town has not been previously submitted by me at this or any other University, that it is my own work and that all referenced material in it have been duly acknowledged.

Sakhile Koketso

Dedication

I wish to dedicate this dissertation to my husband Lesego Peejay Koketso, who has been extremely supportive during this very demanding time and to my children (Retshepile, Vuyisile, Motheo and Tiisetso) who have been very understanding about my many study related absences in the past year. Finally, I dedicate this to my late father Professor Robson MK Silitshena, who believed in me and pushed me to be the best I could be, and instilled in me a love for the environment.

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Most of all I thank God for His guidance and helping me to fulfil my dreams.

Abstract

In light of the growing urgency for action on climate change and the stagnation of negotiations within the climate change regime, the study closely examines the content, legal status and operation of principle of common but differentiated responsibilities, which is assumed to be one of the biggest stumbling blocks in achieving an effective climate change treaty system. The study also analyses the link between the principle and the notions of evolution of the treaty system and graduation of developing countries that have reached an advanced stage of development, and suggests ways in which these can be implemented in a fair and equitable manner.

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Abbreviations

AGBM	Ad-Hoc Working Group on the Berlin Mandate
AWG	Ad-Hoc Working Group
AWG-KP	Ad-Hoc Working Group on the Kyoto Protocol
AWG-LCA	Ad-Hoc Working Group on Long-term Cooperative Action
CBD	Convention on Biological Diversity
CC	Contraction and Convergence
CDR	Common but Differentiated Responsibility
CEIT	Countries with Economies in Transition
CFC	Chlorofluorocarbons
CITES	Convention on Trade in Endangered Species of Flora and Fauna
COP	Conference of the Parties
COP/MOP	Conference of the Parties serving as the Meeting of the Parties
CR	Capability-Responsibility
EC	European Community
EIG	Equity in the Greenhouse
EIT	Economies in Transition
FAR	Fourth Assessment Report
G77/ CHINA	Group of 77 Countries plus China
GATT	General Agreements on Trade and Tariffs
GDP	Gross Domestic Product
GDR	Greenhouse Development Rights
GEF	Global Environment Facility
GHG	Greenhouse gases
HBFC	Hydrobromofluorochloride
HCFC	Hydrochlorofluorochloride
HDI	Human Development Index
ICJ	International Court of Justice
ILO	International Labour Organisation
IPCC	International Panel on Climate Change
IISD	International Institute on Sustainable Development
LDC	Least Developed Country
LRTAP	Long Range Trans-boundary Air Pollution
MDG	Millennium Development Goals
MSA	Multi-stage Approach
NAMA	Nationally Appropriate Mitigation Actions
NIC	Newly Industrialised Country
NIEO	New International Economic Order

ODC	Other Developed Country
OECD	Organisation for Economic Cooperation and Development
QELRO	Quantified Emissions Limitation and Reduction Obligations
RCP	Responsibility Capability Potential
RIDC	Rapidly Industrialising Countries
SBI	Subsidiary Body on Implementation
SBSTA	Subsidiary Body on Scientific and Technical Advice
SND	South-North Dialogue
UK	United Kingdom
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
US	United States (of America)
UVB	Ultra-violet B radiation
WHC	World Heritage Convention
WTO	World Trade Organisation

1 Chapter 1 – Introduction and Background

1.1 Introduction

Multi-lateral negotiations within the United Nations Framework Convention on Climate Change (UNFCCC) have reached an impasse. The Copenhagen Climate Change Conference, which took place in Copenhagen, Denmark from 7 – 19 December 2009,¹ marked the culmination of a two-year negotiating process aimed at adopting an agreement for reducing global greenhouse gases (GHGs) and avoiding catastrophic climate change.² Unfortunately, intense negotiations failed to deliver what many hoped would lead to a sustainable future for the planet and its six billion citizens. Most of the items on the agenda for the negotiations were not agreed and instead parties decided to ‘take note’ of the Copenhagen Accord – a weak political agreement that was negotiated amongst a group of 29 countries and which was not based on the two year negotiation process.³

¹ The conference included the 15th Conference of the Parties to the UNFCCC (COP 15), the 5th Conference of the Parties to the UNFCCC serving as the Meeting of the Parties (COP/MOP 5) to the Kyoto Protocol, the 31st session of the Subsidiary Body on Technological Advice (SBSTA 31), the 31st session of the Subsidiary Body for Implementation (SBI 31), the tenth session of the Ad Hoc Working Group on Further Commitments for Annex 1 Parties under the Kyoto Protocol (AWG-KP 10) and the eighth session of the Ad Hoc Working Group on Long-term Cooperative Action under the UNFCCC (AWG-LCA 8).

² International Institute for Sustainable Development (IISD) ‘Earth Negotiations Bulletin: Summary of the Copenhagen Climate Change Conference: 7-19 December.’ Available at <http://www.iisd.ca/download/pdf/enb12459e.pdf> [Accessed 11 January 2010]

³ Ibid. There were two texts being negotiated, one each from the AWG-KP and AWG-LCA. The Copenhagen Accord has been analysed in detail elsewhere but it is important to note that it was negotiated by a small group of countries, was neither authorised by the COP nor was the COP kept abreast of its development. See for example: Emmanuel Guerin and Matthieu Wemaere ‘The Copenhagen Accord: What happened: Is it a good deal? Who wins and who loses? What is next?’ Available at http://www.iddri.org/Publications/Collections/Idees-pour-le-debat/Id_082009_guerin_wemaere_accord_copenhague.pdf [Accessed 11 January 2010]; IISD ‘A brief analysis of the Copenhagen Climate Change Conference.’ Available at http://www.iisd.org/pdf/2009/enb_copenhagen_commentary.pdf [Accessed 11 January 2010] ; John Drexhage and Deborah Murphy ‘Copenhagen: A memorable time for all the wrong reasons?’ Available at <http://www.iisd.org/publications/pub.aspx?pno=1218> [Accessed 11 January 2010]. Although some authors are optimistic about the Copenhagen most analysts are sceptical about it and how it will be implemented.

Issues that proved controversial during the negotiations included mitigation (in particular the magnitude of GHG emissions commitments for developed countries and the participation of more advanced developing countries in mitigation actions), finance, the legal structure of the outcome of the negotiations and the future of the Kyoto Protocol.⁴ Most of these issues have been contentious since the UNFCCC was adopted in 1992, with no solution in sight and⁵ many of the country positions remained entrenched throughout the whole two-year process with high levels of mistrust between developed and developing countries.⁶

Much of the controversy between developed and developing countries can be traced to one of the founding principles of the UNFCCC, namely, the principle of common but differentiated responsibilities (CDR).⁷ Unless the issues surrounding the interpretation and implementation of the CDR principle are resolved, the deadlock in the UNFCCC negotiations may continue unabated for some time to come

1.2 Background to the study

The UNFCCC was adopted in response to human induced global warming and the resulting change in the earth's climate. It was opened for signature in June 1992, entered into force on 21 March 1994⁸ and has been ratified by 194 countries. The stated objective of the convention is the

⁴ IISD (note 2) at 6

⁵ See for example, Farhana Yamin 'The Kyoto Protocol: Origins, Assessment and Future Challenges.' (1998) 7 2 RECIEL 113

⁶ IISD (note 2) at 8

⁷ See generally: Lavanya Rajamani 'The principle of common but differentiated responsibility and the balance of commitments under the climate regime' (2000) 9 (2) RECIEL 120

⁸ UNFCCC 'Status of ratification' available at http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php [Accessed 5 June 2009]

... stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.⁹

The convention defines climate change as any alteration of the climate system which is a direct or indirect result of human activity and which is in addition to natural climate variability.¹⁰

The main principles of the convention are equity, sustainable development, the precautionary principle, the principle of common but differentiated responsibilities¹¹ and by implication, the polluter pays principle.¹² The CDR principle, which is discussed in more detail in Chapter 2, plays a significant role in the convention and in the negotiations arising from it.¹³

The first formulation of the CDR principle as we know it was contained in Principle 7 of the Rio Declaration on Environment and Development which reads:

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.¹⁴

⁹ United Nations Framework Convention on Climate Change, 1992 (1995) 34 ILM 1671 (UNFCCC) Article 2

¹⁰ Article 1

¹¹ Article 3

¹² Lal Kurukulasuriya and Nicholas Robinson *Training Manual on International Environmental Law* (2003) 32

¹³ It is mentioned in Article 3 'Principles' and in the chapeau to Article 4 which contains substantive provisions

¹⁴ Declaration of the United Nations Conference on Environment and Development

The principle is also contained in Article 3 of the UNFCCC which reads:

The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.¹⁵

The main obligations of the Convention are contained in Articles 4 and 12 and include the development of national inventories of GHG emissions and sinks, the promotion of scientific and technical cooperation, and the sustainable management of forests, oceans and ecosystems.¹⁶ Although all Parties to the Convention are required to develop national programmes for mitigation against the causes of, and adaptation to climate change, reliance on the CDR principle in the convention resulted in emissions reduction commitments for developed countries only, and according to historical responsibility and economic status of each Party.¹⁷ Developing countries on the other hand are not required to take on emissions reduction commitments although they can do so on a voluntary basis.¹⁸

In recognition of the fact that more stringent targets were required to meet the objective of climate stabilisation,¹⁹ the Kyoto Protocol to the UNFCCC was adopted on 11 December 1997 and entered into force on 16 February 2005²⁰. It has been ratified by 184 Parties to the UNFCCC. While the convention only encourages developed countries to stabilise GHG emissions, the Kyoto Protocol commits them to binding emissions reduction

¹⁵ Note the difference in the formulation between Principle 7 and the Article 3 of the UNFCCC. This difference and its implications are discussed in more detail in Chapter 2.

¹⁶ These obligations will be discussed in more detail in Section 2.8.2

¹⁷ These are set out in Annex 1 to the convention

¹⁸ Kurukulasuriya and Robinson (note 12) at 115

¹⁹ Ibid

²⁰ Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1998 (1998) 37 ILM 22 (Kyoto Protocol)

targets. The distinction between developed and developing countries was carried over from the UNFCCC into the Kyoto Protocol where developing countries were not required to undertake any emissions reduction commitments.²¹

Given that developing countries are not a homogenous group²² and that the climate change problem is urgent and requires the participation of more than just the industrialised countries, there may come a point where larger developing countries with high and growing emissions²³ are required to take on emissions reduction commitments. This issue of ‘evolution and graduation’ is contentious and if not treated with care could lead to developing countries being saddled with onerous burdens that run counter to the equity and CDR principles.²⁴ If handled correctly it could lead to the fair distribution of commitments that can lead to the level of emissions reduction that are required by science.²⁵

²¹ Kurukulasuriya and Robinson (note 12) at 115

²² Sumudu Atapattu *Emerging Principles of International Environmental Law* (2006) 379 at 381; The coalition that represents the developing countries at UNFCCC and Kyoto Protocol negotiations is known as the G77 and China. This is a very diverse group with over 130 member countries including oil producing countries, small island states and some very wealthy countries such as Singapore, South Korea and Israel. See also Joyeeta Gupta and Angela Churie Kallhauge ‘Coalition building’ (2002) 44/ 45 *Tiempo* Available at <http://www.tiempocyberclimate.org/portal/archive/issue4445/t4445a6.htm> [Accessed: 5 August 2009]

²³ Singapore, South Korea, Qatar, Israel, Brazil, India, China, Mexico and South Africa are some of the biggest of these

²⁴ Harald Winkler and Shaun Vorster ‘Building bridges to 2020 and beyond: the road from Bali’ (2007) 7 *Climate Policy* 240 at 246 Available at: <http://www.eri.uct.ac.za/Research/publications/07Winkler-Vorster.pdf> [Accessed 7 September 2009]

²⁵ *Ibid*

1.3 Problem statement

1.3.1 State of the Atmosphere

It is widely acknowledged that climate change is inevitable and that in some regions its effects are starting to be felt. The Fourth Assessment Report (FAR) of the Intergovernmental Panel on Climate Change (IPCC) states unequivocally that warming of the climate system is taking place and that most of the warming is due to human activities.²⁶ In fact it states that eleven of the twelve warmest years since 1850 have occurred in the period 1995 to 2006.²⁷

The FAR predicts that average global temperatures will increase from between 1.1°C to 2.9°C (lower end of the predictions) and 2.4°C to 6.4°C (higher end of the projections). Average global temperatures are expected to increase by 0.1°C over the next two decades, even with a stabilisation of GHG concentrations at year 2000 levels. In addition to this the FAR predicts that these temperature increases will be accompanied by an average global sea level rise of over half a metre and increases in warm spells, heat waves and heavy rainfall events. Increases in the intensity of tropical cyclones, increases in the occurrence of droughts and the melting of polar ice caps are also predicted. The science, therefore, clearly demands that a comprehensive climate protection regime is concluded in the shortest possible time.

1.3.2 State of the post-2012 negotiations

For the past two years, Parties to the UNFCCC and the Kyoto Protocol have been negotiating an emissions reduction regime for the period 2013 – 2017.²⁸ The current emissions reduction commitments under the Kyoto

²⁶ IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change at 3

²⁷ Ibid

²⁸ These negotiations were mandated by the Parties at COP 13 that was held in Bali, Indonesia in 2007. The Bali Action Plan as adopted by the Parties, established the AWG-LCA (see note 1 above) and agreed on a two track negotiation process which included the AWG-KP (which was established at COP 11 in 2005). The AWG-LCA was mandated to focus on mitigation, adaptation, finance, technology and capacity building and a shared vision.

Protocol will expire in December 2012. Negotiations are taking place within the UNFCCC, under the auspices of the Ad-Hoc Working Group on Long-term Cooperative Action (AWG-LCA), and within the Kyoto Protocol under the auspices of the Ad-Hoc Working Group-Kyoto Protocol (AWG-KP), in order to cater for those developed countries that are not Parties to Kyoto. Thus there are two sets of negotiations: ‘convention track negotiations’ or LCA negotiations (under the AWG-LCA), and ‘protocol track negotiations’ known as post-Kyoto negotiations (under the AWG-KP). However, negotiations have reached an impasse of sorts which threatens to undermine the effectiveness of the climate protection regime.

Developed country concerns

Developed countries, with the bulk of the responsibility for climate change, are demanding that the more advanced developing countries should take on emissions reduction commitments.²⁹ The basis of their argument is that developing country emissions continue to grow and will soon outpace those of developed countries and therefore any meaningful response to climate change will have to include the US and major developing countries.³⁰

Developed countries are also demanding that the convention and the protocol should include a mechanism for evolution and graduation based mainly on levels of emissions and wealth.³¹ This, they argue, would ensure that all high emitters take on reduction commitments.

The AWG-KP was mandated to negotiate further commitments for developed countries following the end of the current commitment period. The deadline for the negotiations was supposed to be December 2009 in Copenhagen. No agreement was reached in Copenhagen and so the negotiating mandate of the two working groups has been extended to December 2010 when 16th COP of the UNFCCC and the 6th MOP of the Kyoto Protocol will be held in Cancun, Mexico. See IISD (note 2) at 2

²⁹ IISD (note 3) at 1

³⁰ *Ibid*

³¹ Rajamani (note 7) at; IISD (note 3) at 2; Lavanya Rajamani ‘Differentiation in the post-2012 climate regime’ (2008) 44 Policy Quarterly 48 at 49

Furthermore, it is important to note that developed countries are not a homogeneous group with the former communist countries in Eastern Europe exhibiting economic indicators that are similar to those of most developing countries, and their GHG emissions have dropped drastically since the UNFCCC was adopted. The negotiations within the UNFCCC and the Kyoto Protocol have to take cognisance of this.

Developing country concerns

Developing countries, on the other hand (some of which are becoming serious polluters in their own right), are demanding that developed countries fulfil their original obligations under the Kyoto Protocol³² and take on the whole burden of reducing emissions since they are historically responsible for current global emissions. Developing countries also argue that emissions reduction commitments would jeopardise their developmental programmes. Moreover, developing countries are against all talk of evolution and graduation, particularly the form proposed by developed countries.³³ Finally developing countries are wary of accepting any emissions reduction commitments that are not accompanied by financial, technological and capacity assistance.³⁴

1.3.3 Deadlock

In 2009, the UNFCCC Secretariat outlined the key deliverables for the negotiations in Copenhagen as: ambitious emission reduction commitments for developed countries, mitigation actions for large developing countries, finance and an agreement on the architecture of the post-2012 regime.³⁵

³² Instead of reducing emissions, most developed country Parties have seen their emissions growing and it is unlikely that their Kyoto targets will be met. See for example the South-North Development Monitor SUNS, No. 6378, 3 December 2007

³³ Rajamani (note 31) at 49

³⁴ Ibid

³⁵ IISD (note 7) at 1

Negotiations under the AWG-KP made little progress during 2009 with developing countries calling on developed countries to commit to deep emissions cuts and developed countries urging the USA and major developing countries to share the burden of emissions reductions.³⁶ Under the AWG-LCA negotiations progressed well on issues such as adaptation, deforestation and technology transfer but stalled on issues of mitigation, finance and the future of the Kyoto Protocol.³⁷

There is a deep divide between developed and developing countries³⁸ with both sides using the CDR principle to justify their positions.³⁹ Developed countries claim that the principle requires that all countries take on emissions reduction commitments although these may differ according to national circumstances. They also claim that the principle does not require them to transfer finance or technology to developing countries. Developing countries, on the other hand, claim that the principle absolves them totally from any emissions reduction commitments, and that CDR requires they be provided with funding.⁴⁰

This lack of clarity on what the principle really requires has contributed to the lack of progress in the AWG-LCA and AWG-KP negotiations. Instead, the principle is used as a shield that enables the two groups to evade any serious emissions reduction commitments,⁴¹ and in the meanwhile climate change continues unabated.

³⁶ Ibid; IISD (note 2) at 2

³⁷ Ibid

³⁸ Rajamani (note 7)

³⁹ Rajamani (note 7) at ; Lavanya Rajamani 'Addressing the post-Kyoto stress disorder: Reflections of the emerging legal architecture of the climate regime' Available at <http://www.cprindia.org/moreworkingpapers.php?s=150> [Accessed 11 January 2010]

⁴⁰ Rajamani (note 7)

⁴¹ Rajamani (note 7); Susan Biniaz 'Common but differentiated responsibility' (2002) 96 American Society for International Law Proceedings 359

1.4 Objectives of the study

The main objective of the study is to analyse the principle of common but differentiated responsibilities and develop an understanding of its operation, in other treaties and in the UNFCCC and Kyoto Protocol (Chapter 2). This will include a determination of whether the use of the principle in the climate regime absolves developing countries from taking on binding emissions reduction commitments.

The study also aims to analyse whether the principle of common but differentiated responsibilities encompasses the notions of evolution and graduation. This will include an examination of the concepts of evolution and graduation and their implications for developing country Parties (see Chapter 3). The study will investigate what forms of evolution and graduation would be fair and equitable and how they can be implemented if at all (Chapter 4).

1.5 Rationale for the study

Due to the scale of global warming, there is an urgent need to conclude AWG-LCA and AWG-KP negotiations with emissions reduction commitments that are at the level required by science. The problem is so large that emissions reduction by developed countries alone will not suffice.⁴² Some action will be required by, at least, the more advanced developing countries. Since the positions taken up by developed and developing countries have become polarised with each side claiming the CDR principle to bolster their positions, there is a need for the re-evaluation of simple developed – developing country divide that has been used to date.⁴³ Countries like Israel,

⁴² P Baer et al *The greenhouse development rights framework : The right to development in a climate constrained world* 2ed (2008)

⁴³ Philippe Cullet 'The global warming regime after 2012: towards a new focus' 2008 43 (28) *Economic and Political Weekly*

Singapore, South Korea, China, India, Brazil, Mexico and South Africa cannot be placed in the same category as poor countries like Malawi, Guatemala and Bangladesh.⁴⁴

Furthermore, COP 15 witnessed the emergence of a new alliance in the climate change negotiations. The Presidents of Brazil, India, China and South Africa met just before the conference to form an alliance called the BASIC Group which was instrumental in brokering a deal with the US over the Copenhagen Accord. It can be inferred that this group was formed to protect the economic interests of these countries which are some of the more advanced economically and are the biggest polluters amongst developing countries. The emergence of this group signals an acknowledgement by these countries that they are different from other developed countries and that they have a responsibility to contribute to the mitigation of climate change.

On the other hand, it would not be fair or equitable to require those countries that are not responsible for current global warming to take on the same emissions reduction commitments as countries that have benefited hugely from their polluting activities. There is a need to define a concept of the CDR principle that can be used as a bridge between the developed and developing countries and move the negotiations forward, thereby contributing to the protection of the climate system.

This study will therefore contribute to:

- A better understanding of the CDR principle and its operation.
- A better understanding of the concepts of evolution and graduation
- A better understanding of the relationship between CDR and the concepts of evolution and graduation
- The development of key elements that any models of evolution and graduation should take into consideration. This would ensure that

⁴⁴ Ibid

any models proposed would meet the need for urgent action but also takes into consideration of the development needs of the large developing countries.

1.6 Research methodology

The methodology used in this study was qualitative in nature and was based on documentary research on international environmental law, the principles of environmental law, the CDR principle and the concepts of evolution and graduation. Primary sources of data included various sources of hard law such as treaties, judicial decisions and state practice; and soft law such as declarations and agreements.

Secondary sources of data included the writings of authorities on various topics. Examples of these include text books, journals and internet materials from reputable websites.

In addition to the above, the author has used the experience and insights gained from attending the last three climate change conferences namely: the UNFCCC COP 13 and Kyoto MOP3 that were held in Bali, Indonesia in 2007; the UNFCCC COP 14 and Kyoto MOP 4 that were held in Poznan, Poland in 2008; and the UNFCCC COP 15 and Kyoto MOP 5 that were held in Copenhagen, Denmark in 2009. These insights have informed much of the discussion and analysis contained in the study.

1.7 Overview of the report

The study is arranged in five chapters. The first chapter provides essential background information. It provides the statement of the problem, the rationale for the study and presents the methodology used in the research.

The second chapter analyses the CDR principle. It investigates the history of the principle and explores its legal status. The chapter also analyses the different forms of differentiation and goes on to discuss the use of the principle in two environmental treaties, namely: the Montreal Protocol on Substances that Deplete the Ozone Layer⁴⁵ (a Protocol to the Vienna Convention on the Protection of the Ozone Layer⁴⁶) and the UNFCCC (including the Kyoto Protocol).

Chapter 3 analyses the concepts of evolution and graduation and explores the definition of the concepts. The chapter explores the relationship between the concepts and the CDR principle. Various forms of evolution and graduation have been proposed and the chapter discusses these and ends with an overview of the use of the concepts in other treaties.

Chapter 4 discusses the key elements that any model of evolution and graduation should include. It then proposes key elements for evolution and graduation for the UNFCCC and Kyoto Protocol.

The last chapter provides a summary of the study. It also presents conclusions and recommendations.

⁴⁵ The Montreal Protocol on Substances that Deplete the Ozone Layer 1987 (1987) 26 ILM 1550

⁴⁶ The Vienna Convention on the Protection of the Ozone Layer 1985 (1985) 26 ILM 1529

2 Chapter 2 – Common but differentiated responsibilities

The CDR principle has provided the basis for the development of an international climate change law for almost two decades. The following chapter will attempt to define the principle and outline its operation in international environmental law. It will begin with a discussion of the history of the principle, and then debate the rationale for the principle, before evaluating its legal status. The chapter will then go on to discuss the content of the principle and the different forms of differentiation in international law before discussing the different tools or methods for implementing the principles. It will then discuss the strengths and weaknesses of the principles and then use two environmental treaties to illustrate its operation. Attention will now be turned to a discussion of how the principle has developed.

2.1 History of the CDR Principle

While Principle 7 of the Rio Declaration on the Environment and Development was the first articulation of the term ‘common but differentiated responsibilities,’⁴⁷ differentiation within multilateral agreements has existed for several decades.⁴⁸ Differentiation (also referred to in this study as differential treatment) evolved through three separate but related processes in international law: the use of differentiation in treaty law, the use of differential treatment in trade and economic development and differentiation in international environmental law beginning with the Stockholm Declaration in 1972.

⁴⁷ Christopher Stone ‘Common but differentiated responsibilities in international law’ (2004) 98 *American Journal of International Law* 276 at 278; Philippe Sands *Principles of international environmental law* 2ed. (2003) 285; Rajamani (note 31) at 120; Patricia Birnie et al *International law and the environment* 3ed. (2009) 132

⁴⁸ Stone (note 47) at 278; Rajamani (note 7) at 120

2.1.1 Differentiation in treaty law

The first international treaty to differentiate between parties was the Treaty of Versailles in 1919⁴⁹ which encompassed the constitution of the International Labour Organisation (ILO). The constitution of the ILO recognised, under its general principles (Article 427) that it would be difficult to immediately achieve strict uniformity in employment standards given the differing conditions in climate, customs and economic opportunity.⁵⁰ The parties however, would 'endeavour to apply certain methods and principles for regulating labour conditions so far as their special circumstances will permit.'⁵¹

Since then, other treaties such as the Multilateral Limitation of Naval Armament (Washington Naval Treaty)⁵² and the General Agreement on Trade and Tariffs (GATT)⁵³ have adopted non-uniform standards and norms.⁵⁴ Other examples include the Convention for the Regulation of Whaling

⁴⁹ Stone (note 47) at 278;

⁵⁰ International Labour Organization (ILO), *Constitution of the International Labour Organisation (ILO)*, 1 April 1919. Available at <http://www.firstworldwar.com/source/versailles400-427.htm> [Accessed 1 December 2009]

⁵¹ Ibid. As shall be seen later, the use of language such as that used here, which recognises the special circumstances of parties to a treaty, is a form of differentiation.

⁵² Ibiblio 'Conference on the Limitation of Armament. Washington, November 21, 1921 to February, 6 1922.' Available at http://www.ibiblio.org/pha/pre-war/1922/nav_lim.html [Accessed 1 December 2009]. Also known as the Five Powers Treaty, it limited the total tonnage of arms and equipment that the navies of each of the signatories could carry. The British Empire and the United States were each limited to 525,000 tons, Japan was limited to 315,000 tons and France and Italy were each limited to 175,000 tons (Article 4). See also Stone (note 47) at 276.

⁵³ See generally 'General Agreement on Tariffs and Trade: Text of the general agreement. Geneva, July 1986.' Available at http://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf [Accessed 1 December 2009]. Part IV titled 'Trade and Development' deals in detail with the circumstances of developing countries and makes provision for their use of special measures. This preferential treatment was introduced to the GATT in 1965. See also Stone (note 47) at 278. It has been said however, that while these provisions were designed to promote development and trade, they are nothing more than a set of aspirations with no legal force. See also: Alexander Keck and Patrick Low 'Special and differential treatment in the WTO: Why, when and How?' Available at: http://www.wto.org/english/res_e/reser_e/ersd200403_e.doc [Accessed 11 January 2010]

⁵⁴ Stone (note 47) at 278.

(1946)⁵⁵, the Convention on the Continental Shelf (1958),⁵⁶ the Convention on Civil Liability for Oil Pollution Damage (1969)⁵⁷ and the Convention on the International Liability for Damage Caused by Space Objects (1969).⁵⁸ As discussed in Section 2.5 below, these treaties in using terms such as ‘as far as possible’ and ‘as far as reasonable’, allow for differentiation in implementation because implementation would therefore be subject to the national circumstances of each Party.

As Daniel Magraw notes, the conventions mentioned above do not specifically mention developing countries, or might not specifically favour developing countries⁵⁹ but the implementation of their provisions would almost certainly result in differentiation in favour of developing countries whose national circumstances would hinder them from fully implementing their provisions.

In a process related to the development of differentiation in treaty law, the international processes for trade and economic development also included some form of differentiation.

2.1.2 Differentiation in trade and economic development

After World War II the international community grew larger through the process of decolonisation. As more countries gained independence and joined the international legal fraternity, there was a call from the former colonies (most in the developing world) that developed countries (who were

⁵⁵ Article 8(2) states that permit obligations must be complied with ‘as far as possible.’ See Daniel Barstow Magraw ‘Legal treatment of developing countries: differential, contextual and absolute norms.’ (1990) 69 1 *Colorado Journal of International Environmental Law and Policy* 69 at 89;

⁵⁶ Article 5(1) requires that the exploitation of the continental shelf must not result in unjust interference with conservation of living resources. See Magraw (note 55) at 89

⁵⁷ Articles 3(2)(c) and 5 state that owners of all ships are jointly and severally liable for damage which is not ‘reasonably’ separable.

⁵⁸ Article 12 states that compensation shall be determined according to the principles of justice and equity. See Magraw (note 55) at 89

⁵⁹ Magraw (note 55) at 90; Stone (note 47) at 277

mainly their colonial masters) should pay reparation for the deliberate under-development of the colonies, and the resources extracted from these colonies that contributed to the wealth of the developed countries.⁶⁰ While developed countries resisted this call, there was recognition that in order to facilitate the participation of developing countries in international trade there was a need to include special arrangements for them.

This led to the incorporation of special and differential treatment in various instruments relating to trade and development.⁶¹ As has already been discussed in section 2.1 above, the GATT in 1965 incorporated detailed provisions relating to the special treatment of developing countries.⁶² These rules have been further developed over the intervening years and were incorporated into the World Trade Organisation (WTO) rules. For example, the GATT Enabling Clause of 1979⁶³ and the Uruguay Round Agreements which came into effect in 1995, made extensive provisions for the special and differential treatment of developing countries.⁶⁴

In parallel to the developments in GATT, a new movement called the New International Economic Order (NIEO) began in the early 1970s with developing countries demanding the creation of new rules allowing them to benefit from international trade.⁶⁵ The NIEO demanded that the economic interests of developing countries should be protected, that positive

⁶⁰ Philippe Cullet 'Differential Treatment in International Law' (1999) 10 3 EJIL 549 at 565; Magraw (note 55) at 77; Atapattu (note 22) at 382

⁶¹ Cullet (note 60) at 566

⁶² See note 53 and accompanying text.

⁶³ Decision of 28 November 1979 on Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries. This clause was adopted to allow favourable (i.e. differential) treatment for developing and least developed countries that would otherwise violate Article 1 of the GATT.

⁶⁴ Edith Brown Weiss 'Common but differentiated responsibilities in perspective.' (2002) 96 American Society for International Law Proceedings 366

⁶⁵ Developing states were unhappy with the traditional international economic law and its protection of foreign assets on their lands: Cullet (note 60) at 566

discrimination should be instituted in their favour and that international rules should be non-reciprocal.⁶⁶ It was posited that differential treatment, in the form of international finance and technology transfer should be effected not as aid or charity, but as the entitlement of the developing countries.⁶⁷ In fact, the proponents of the NIEO who were mainly developing countries, put forward several UN General Assembly resolutions seeking to establish the NIEO and although they had significant political impact, these resolutions were never implemented.⁶⁸ This movement was of course, resisted by the developed countries and has since died away.⁶⁹

While the NIEO has largely been left behind, some of its principles were carried over into international environmental negotiations,⁷⁰ particularly the era following the United Nations Conference on the Human Environment (UNCED) that was held in Stockholm in June, 1972.⁷¹

2.1.3 Differentiation after the Stockholm Conference

UNCED, also known as the Stockholm Conference was the first international gathering to consider global environmental issues. The main outputs of the conference were the Stockholm Declaration which contains 26 principles and the Stockholm Action Plan which contains 109 recommendations, some of which led to the establishment of the United Nations Environment Programme (UNEP).⁷²

⁶⁶ Cullet (note 60) at 566

⁶⁷ This movement was premised on the need for wealth redistribution and special dispensation in the repayment of international debt...

⁶⁸ Cullet (note 60) at 568

⁶⁹ Cullet (note 60) at 568; Atapattu (note 22) at 382

⁷⁰ Magraw (note 55) at 79

⁷¹ Atapattu (note 22) at 382

⁷² Jan Glazewski *Environmental Law in South Africa* 2ed (2005) 34; Michael Kidd *Environmental Law* (2008) 49

The Stockholm Declaration, in its Preamble, Principles 9 – 12 and 23 makes repeated references to developing countries and their special needs.⁷³ The contribution of the Stockholm Declaration to the CDR principle did not end there as most environmental agreements concluded after the Stockholm Conference contain references to the special needs of developing countries.⁷⁴ In fact, Christopher Stone asserts that the environment is the ‘most fertile field for non-uniform obligations.’⁷⁵

The environment specific conventions that have differentiated their obligations since the Stockholm Conference include the Convention on Long Range Trans-boundary Air Pollution (LTRAP)⁷⁶ and the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Conventionm-WHC).⁷⁷ Other examples include the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES), the UN Convention on the Law of the Sea (UNCLOS). The Vienna Convention and the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention).⁷⁸

Perhaps the best example of differentiation in treaty law is the Montreal Protocol of 1987 which provides different implementation schedules for different categories of Parties. The Protocol will be discussed in more detail

⁷³ Atapattu (note 22) at 382

⁷⁴ Atapattu (note 22) at 395, Duncan French ‘Developing states and international environmental law: The importance of differentiated responsibilities’ (2008) 49 1 *International and Comparative Law Quarterly* at 40

⁷⁵ Stone (note 47) at page 279

⁷⁶ Convention on Long Range Trans-boundary Air Pollution 1979 (1979) 18 *ILM* 1442

⁷⁷ Convention Concerning the Protection of the World Cultural and Natural Heritage 1972 (1972) 11 *ILM* 1358. Article 4 places the duty of identification, protection and conservation of natural heritage on state Parties subject to the limits of their resources and where appropriate with international cooperation. As will be shown later, the provision of international assistance is another form of differentiations. See also Magraw (note 55) at 75; French (note 74) at 40

⁷⁸ Magraw (note 55) at 94; Atapattu (note 22) at ; Stone (note 47) at; Tuula Honkonen *The common but differentiated responsibility principle in multilateral environmental agreements: Regulatory and Policy Aspects* 2010

in section 2.8.1 below; suffice it to say that it was negotiated before there was a named principle on differentiation.

The environmental treaties adopted during and after the United Nations Conference on Environment and Development (UNCED) namely the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), UNFCCC and the Kyoto Protocol have stronger language on differentiation than those adopted before the conference. This is probably because the development of the principle in the Rio Declaration would have had an influence on the negotiation of those treaties.

To summarise, the development of the concept of differentiation in international law has been illustrated. It has been shown that although the term ‘common but differentiated responsibilities’ was first enunciated by Principle 7 of the Rio Declaration, differential treatment has existed for much longer in international law. This begs the question therefore, why there was and is a need for a distinct principle on differentiation if it has existed for so long and has been used in different treaties. Attention will now be turned to an analysis of the rationale for the existence of the CDR principle.

2.2 Justification for the existence of the principle

Ideas abound regarding the aim or rationale for the CDR principle and many scholars have advanced different reasons for its existence.⁷⁹ Different authors present different though somewhat related reasons for its existence. The ideas of four leading scholars will be highlighted here. This will be followed by the author’s own interpretation of the justification for the existence of the principle.

Lavanya Rajamani asserts that the justification of the principle is based on two notions of equity. In the first instance, she quotes Henry Shue who

⁷⁹ See generally: Atapattu (note 22); French (note 74); Magraw (note 55); Stone (note 47); Lavanya Rajamani *Differential treatment in international environmental law* (2006); Honkonen (note 78)

states that Parties that take unfair advantage of others should bear an unequal burden in finding the solution to those problems.⁸⁰ So for example, developed countries have benefited disproportionately from industries that cause environmental degradation but the costs of that degradation are borne by all countries; developed countries should therefore bear the unequal burden of remediating environmental problems. The second notion of equity arises from the capability to solve the problem. Here the character of developing countries, the inequalities in the international communities and the level of economic development of states should be taken into consideration when determining the level of commitments for different states; therefore developed countries should bear a higher burden.⁸¹

Daniel Magraw argues that there are 3 reasons for differential treatment in international law. The first reason is that in order to improve the chances of an agreement being successful, it is necessary to include developing countries.⁸² This, he says, is because developing countries are the source of much of the world's pollution, because they are home to most of the world's population and because most developing countries lack the legal, technical and technological capacity to deal with environmental problems. Secondly, he states that political reasons will dictate the inclusion of differential treatment in international law.⁸³ With the majority of the world's population, developing countries are important to developed countries in many areas not related to the environment and therefore their demands should not be ignored. Furthermore, since political leaders in developing countries have other priorities such as economic development, special incentives have to be included in order to encourage their participation. The third reason Magraw gives for differential treatment is the moral imperative to improve the standard of living of the world's poorest

⁸⁰ Rajamani (note 7) at 123

⁸¹ Ibid

⁸² Magraw (note 55) at 69 - 72

⁸³ Ibid

people.⁸⁴ He says that environmental norms should be structured in a way that does not interfere with the effort to lift the poor from abject poverty.

Philippe Cullet proposes three reasons for the existence of the CDR principle. The principle of sovereign equality requires that all States are treated equally without any discrimination and that all international obligations should apply equally to all members of the international community.⁸⁵ However, not all states are equal in substantive terms and so Cullet's first justification for the principle is that it can bring about substantive equality to an international community which is made up of unequal states. Secondly, he believes that the principle can provide the framework for less confrontational international relations.⁸⁶ Lastly, he believes that the third objective for the CDR will be the better and more effective implementation of environmental treaties. This, he argues is because differentiation constitutes an avenue for making international law more responsive to national circumstances (and thus more likely to be implemented in developing countries where a treaty requires costly measures).

Another authority on differentiation in international law is Duncan French who proposes five reasons for the existence of CDR:⁸⁷

- a) Firstly, he argues that the most obvious reason for the existence of the principle is the differing contributions of States to environmental degradation. He quotes with approval Chowdhury who states that

⁸⁴ *ibid*

⁸⁵ Cullet (note 60) 550 - 563; See also Atapattu (note 22) at 379

⁸⁶ Cullet believes that the link between differentiation and international cooperation exists at three levels. 1) Because solidarity is closely linked to differentiation countries need to cooperate to achieve the goals of environmental protection. 2) Developed countries will have specific interests that push them to provide favourable terms to developing countries in order to ensure that their own priorities are acted upon in the south. 3) States have differing responsibilities for the existing environmental problems and differing capabilities to deal with them therefore states must take on differing responsibilities for solving the problem.

⁸⁷ French (note 74) at 46 - 57

responsibility [for the implementation of solutions] must be unequal and proportional to the different contributions that states have made to environmental degradation. Given that developed countries have benefited disproportionately from environmental degradation, they should have to bear a higher burden in the improvement of the situation.⁸⁸

- b) Secondly he argues that since some countries have a larger capacity to tackle the causes of global environmental problems, they should bear a higher responsibility to solve these problems.⁸⁹
- c) His third argument relates to the NIEO discussed above. He states that developed countries are ‘under an obligation to take into account the special needs and circumstances of developing countries’ when drafting international treaties. He says that this is in recognition of the fact that while combating environmental degradation is a priority of the global North, it is not necessarily one for the global South which has other pressing needs such as eradicating poverty and achieving sustainable economic growth.⁹⁰
- d) Fourthly, he bases the need for differential treatment on the need for international cooperation. He argues that the international community has entered a new stage of international relations that requires States to act in ‘global partnership’ to solve the problems facing the planet. This notion of global partnership seeks to create a new and equitable partnership between the North and the South. He says that although the notion has not found purchase in

⁸⁸ French (note 74) at 47 - 49

⁸⁹ French (note 74) at 50 - 51

⁹⁰ French (note 74) at 52 - 55

international law, it may prove to be an important justification for differentiation.⁹¹

- e) Finally, he finds that the existence of the CDR may be justified because it provides inducement to hesitant States to participate in environmental treaties. This he argues, is because most developing countries do not see the benefit in agreeing to environmental obligations that could prove costly and retard their economic development.⁹²

Given what has been presented above, common themes can be distilled with regards to the justification for the existence of the CDR principle. They can be summarised as follows: i) to achieve a state of substantive equity amongst participants of an environmental treaty, ii) to allocate greater responsibility to those that have made a greater contribution to a particular problem, iii) to allocate greater responsibility to those that have more capacity to deal with a particular situation, iv) to recognise the special situation of developing countries, v) to recognise that different countries and groups of countries have different priorities and, vi) to promote the widest possible participation in a multilateral agreement.

While the writer agrees with most of the reasons presented above, it is submitted that there are four main reasons for the existence of the principle. These are all based on the notion of equity and are expressions of the different dimensions of equity. In the writer's view the following can best be described as the objectives of the CDR principle:

- **To achieve substantive equity** (as noted above),⁹³ even though the principle of state sovereignty requires that States are treated equally, events in history have resulted in an unequal playing

⁹¹ French (note 74) at 55 – 56

⁹² French (note 74) at 56 - 57

⁹³ Cullet (note 60); French (note 74); Rajamani (note 7); Atapattu (note 22)

field. One must therefore acknowledge that States are unequal and so any treaty or agreement that does not recognise this would be unjust and would probably fail, if not in negotiation then in implementation. For example the United Kingdom (UK) and Lesotho may be sovereign equals but in real terms these countries have very different attributes and Lesotho would require some level of manufactured advantage in order to participate in an environmental treaty to the same extent as the UK.

- **To assign greater responsibility** to those States that have contributed more to a particular environmental problem, as advocated for by most scholars discussed above. Most developed countries have based their development and owe the strength of their economies on more than 150 years of industrial development which has been accompanied in most cases by environmental pollution and degradation. This historical responsibility for global environmental problems cannot be easily written off and developed countries must therefore take the lead in solving environmental problems. The concept of equity is central to international environmental law; it incorporates the right to develop and recognises that the needs of the world's poor must be given priority,⁹⁴ therefore poorer countries should not be expected to take onerous environmental obligations which may interfere with the right to develop. This assertion is also based on the principle of intra-generational equity which states that the use of natural resources by one segment of society must take into consideration the needs of other segments of society. It encompasses the right of all people within the current generation

⁹⁴ Glazewski (note 72) at 13; Kidd (note 72) at 16; Kurukulasuriya and Robinson (note 12) at 26

to fair access to resources and includes the concept of environmental justice.⁹⁵

- **To assign greater responsibility** (as noted above)⁹⁶ to those States that have greater capacity to solve environmental problems, particularly if they have gained disproportionately from the creation of a certain set of environmental problems. While not agreeing to the entire thesis of the NIEO, the writer submits that there is some merit to the argument that colonialism created rich and poor classes of countries with developed countries in the former class and developing countries in the latter class.⁹⁷ The gains that developed countries secured from both degrading the environment and from ‘plundering’ the colonies should therefore to a certain extent, contribute to the alleviation of environmental degradation.⁹⁸ The writer states this with caution because this argument will surely not persist into perpetuity (and across all spectra of developmental issues) and at some point developing countries should have reached some level of development that negates this argument.⁹⁹
- **To achieve better and more effective** participation in, and implementation of, environmental treaties. This is particularly so when participation in a treaty is not in the priorities of a country or group of countries or when the implementation of a treaty will impose a disproportionately high cost on developing countries. As

⁹⁵ Kurukulasuriya and Robinson (note 12) at 27

⁹⁶ Cullet (note 60); French (note 74); Rajamani (note 7); Atapattu (note 22), Magraw (note 55)

⁹⁷ Cullet (note 60)

⁹⁸ Cullet (note 60); French (note 74); Rajamani (note 7); Atapattu (note 22), Magraw (note 55)

⁹⁹ There is not enough space to discuss the modalities of such a level of development, but if for example, a country like South Korea or Qatar reaches a level of human development (as indicated by the United Nations Development Programme’s Human Development Index) that is expected of, or exceeds that of, a developed country, then it cannot surely rely on the arguments presented here.

noted above¹⁰⁰ differentiation can be used as an inducement to compel States that would be wary of taking on obligations that would have negative impacts on their priorities.

So, in summary, this section has briefly discussed the different reasons put forward by various scholars regarding the justification for the existence of the CDR principle. Furthermore, a set of objectives for the CDR principle have been suggested which encompass the various themes that have been set forward by previous authors. Given the above discussion, it is now important to investigate the content of the principle.

2.3 Content of the principle

There is some level of agreement amongst the different scholars regarding the scope and content of the CDR principle. From the literature it is evident that the principle contains the following three elements, which are related to the rationale for the principle: i) the element of common responsibility, ii) the element of differentiated responsibility and, iii) the element of leadership by developed countries. Each of these will now be discussed in turn.

The element of common responsibility

This element of the CDR principle emanates from the concepts of ‘the common concern of humankind’ and ‘the common heritage of mankind.’¹⁰¹ These concepts require that all States should take action to combat global environmental problems and they imply that there is a common interest within humankind to protect the environment, since the environment is a common global resource to which all are connected.¹⁰² According to Philippe Sands, ‘common responsibility’ describes the shared obligation of two or

¹⁰⁰ See generally French (note 74), Cullet (note 60), Magraw (note 55), Stone (note 47)

¹⁰¹ Stone (note 47) at 276; French (note 74) at 45; Alexandre Kiss and Dinah Shelton *International environmental law* 3ed (2004) 19

¹⁰² Honkonen (note 78) at 68; Kiss and Shelton (note 101) at 21

more States towards the protection of a common environmental resource¹⁰³ and it applies ‘where a resource is not the property of, or under the jurisdiction of, a single country.’¹⁰⁴ This is because no State enjoys sovereignty of global environmental resources which are the common heritage of all.¹⁰⁵ While these concepts do not enjoy universal acceptance and have no common definition, there is a recognition by developed and developing countries on the need to act together to solve environmental issues.¹⁰⁶

This element also evolved from the related principles of ‘global partnership’ and ‘cooperation.’¹⁰⁷ The principle of global partnership recognises that environmental resources and the problems associated with them do not respect political boundaries, that countries are ecologically interdependent, and the need for North-South cooperation and compromise to solve global environmental problems.¹⁰⁸ The principle of cooperation states that countries are obliged, in the spirit of solidarity to collaborate in the prevention of transboundary pollution.¹⁰⁹

The element of differentiated responsibility

This element can be further divided into two separate themes, one of differential contribution to environmental degradation, and the other of different capabilities and resources for solving environmental problems.

¹⁰³ Sands (note 47) at 286; Kiss and Shelton (note 101) at 19

¹⁰⁴ Ibid

¹⁰⁵ Ibid

¹⁰⁶ French (note 74) at 46

¹⁰⁷ Rajamani (note 7) at 121; Atapattu (note 22) at 386; Sands (note 47) at 286; Marie-Claire Cordonier Segger ‘Prospects for principles of international sustainable development law after the WSSD: Common but differentiated responsibilities, precaution and participation’ (2003) 12 1 RECIEL 54 at 56; Birnie et al (note 47) at 129

¹⁰⁸ Atapattu (note 22) at 387; Kurukulasuriya and Robinson (note 12) at 29; Birnie et al (note 47) at 129

¹⁰⁹ Rajamani (note 7) at 121; Kurukulasuriya and Robinson (note 12) at 27; Birnie et al (note 47) at 132

Firstly, this element takes into consideration the historical contribution of different countries to global environmental degradation.¹¹⁰ It assigns greater responsibility to industrialised nations¹¹¹ and builds on the polluter pays principle, where those most responsible for global pollution are required to take on more responsibility for the remediation of those problems. Internationally, this is hotly contested terrain and may be one of the reasons why the principle has not achieved widespread acceptance.

Secondly, this element of the CDR acknowledges that technology and capacity to deal with environmental problem resides in the global North.¹¹² It recognises the special situation and the particular needs of developing countries.¹¹³ It requires that higher standards are set for developed countries and that more flexible terms are assigned to developing countries.¹¹⁴

The element of leadership by the developed countries

This element of the CDR principle requires that developed countries should take the lead in combating environmental problems and assisting developing countries to develop sustainably.¹¹⁵ It requires that developed countries should act first in dealing with environmental problems thus allowing developing countries much needed development space. An example of this is the UNFCCC which states that ‘the developed country parties

¹¹⁰ French (note 74) at 47

¹¹¹ French (note 74) at 47; Cordonier-Segger (note 107) at 56; Brown-Weiss (note 64) at 366; Sands (note 47) at 286

¹¹² Rajamani (note 7) at 122; Brown-Weiss (note 64) at 366; Sands (note 47) at 286; Birnie et al (note 47)

¹¹³ Rajamani (note 7) at 122

¹¹⁴ Birnie et al (note 47)

¹¹⁵ Rajamani (note 7) at 121; Honkonen (note 78)

should take the lead in combating climate change and the adverse effects thereof.¹¹⁶

In engaging with the literature, it becomes clear that it is the last two elements of the CDR principle which are the most problematic in terms of definition and universal acceptance.¹¹⁷ While developing countries push for its wide application in almost all multilateral environmental agreements, developed countries remain unconvinced about its utility in international environmental law. Perhaps the most important reason for this is that developed countries dispute whether they should be held accountable for the actions of previous generations, particularly when those previous generations were not aware of the negative consequences of their activities.¹¹⁸

So, to summarise, it has been shown in this section that the CDR principle is made up of three elements. What then is the legal status of the principle?

2.4 Legal status of the principle

Although there is not much agreement on what the CDR principle entails amongst the different authorities, the one thing that they agree on is that the legal status of the principle is not clear.

Sources of international environmental law are generally the same as those of international law i.e. treaties, customary international law, general principles of law and in some cases judicial decisions and writings of publicists,¹¹⁹ except that soft law plays an important role in the development

¹¹⁶ Art. 3

¹¹⁷ See for example Biniaz (note 41); Stone (note 47)

¹¹⁸ Ibid

¹¹⁹ Statute of the International Court of Justice, Article 38. Available at: http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER_II [accessed 11 January 2010]. Glazewski (note 72) at 33; Kidd (note 72) at 43; Kiss and Shelton (note 101) at 41; Honkonen (note 78) at 293

of international environmental law.¹²⁰ Therefore, in order ascertain whether the CDR principle constitutes a rule of law, it is necessary to investigate whether it has emerged from any of these sources of law.¹²¹

While different environmental treaties, especially those adopted at and after UNCED, have differentiated in one form or another, it is only the UNFCCC that has explicitly incorporated the CDR principle. It therefore binds only those States that are Parties to that Convention.¹²² Even then it is not clear whether the principle is legally binding on the Parties.¹²³ This is because it is not used in the operative text of the convention – it is found in the preamble and the chapeau of Article 4.¹²⁴ Furthermore, the principle is couched in discretionary rather than prescriptive language¹²⁵ which leaves the interpretation of its legal status within the Convention open to debate. Furthermore, while other treaties do not specifically mention the principle, they do differentiate in one form or another;¹²⁶ however, some scholars have said that the tendency of various instruments to mandate special treatment for developing countries is not legally significant.¹²⁷ It can therefore not be said with conviction, that the principle forms an integral rule of treaty law and indeed some authorities have stated that it is ‘implausible to put the

¹²⁰ Ibid

¹²¹ What follows is a brief analysis of the legal status of the CDR principle. It is by no means an exhaustive treatment of the subject given the constraints of space in this study. For a full and reasoned analysis, see e.g. Honkonen (note 78) at 293

¹²² Kiss and Shelton (note 101) at 42

¹²³ Atapattu (note 22) at; Cullet (note 60) at 575

¹²⁴ Rajamani (note 79); Honkonen (note 78) at 302

¹²⁵ Rajamani (note 7) at 124

¹²⁶ As discussed in Section 2.1 above and Section 2.5 below there are different forms of differentiation, one of the most common being the consideration of the special circumstances of developing countries

¹²⁷ See for example, Anne Gallagher ‘The ‘new’ Montreal Protocol and the future of international law for protection of the global environment’ 1992 14 *Houston Journal of International Law* 267

principle of common but differentiated responsibilities forward as a principle of international law'.¹²⁸

The extent to which the CDR principle forms part of international custom or is a general principle of law is also open for discussion. Customary international law is made up of two elements: 'general practice and the conviction that such practice reflects or amounts to law.'¹²⁹ Customary law is as binding as treaty law although customary law has a wider scope than treaty law.¹³⁰ The CDR has certainly gained increasing amounts of attention since its incorporation in the Rio Declaration, though its content and scope remain vague with developed and developing countries having different interpretations on its status.¹³¹ Developed countries remain sceptical of the legal nature of the principle and view it as an ad-hoc principle to be called upon in the negotiation of certain treaties while developing countries on the other hand are eager to give the principle the status of customary international law.¹³² Given the indeterminacy of the content and scope of the principle, it is not clear whether developing countries can rely on the principle in consistently negotiating for favourable terms. There is agreement however, that State practice regarding the CDR principle is limited and inconclusive and it is clear that most developed countries do not agree to be bound by it.¹³³

The International Court of Justice (ICJ) has said that a principle can also be considered a customary rule of international law if it is used in a convention which has widespread and representative participation, and that

¹²⁸ Stone (note 47) at 281;

¹²⁹ Honkoken (note 78) at 293

¹³⁰ *Ibid* at 297

¹³¹ *Ibid*

¹³² *Ibid*

¹³³ Cullet (note 60) at 579; Sands (note 47) at 287

related state practice should be extensive and uniform.¹³⁴ Though the principle has been explicitly used in the UNFCCC and the Kyoto Protocol, the fact that the United States (US) has not ratified the Kyoto could prove to be a barrier to the acceptance of the principle as a binding rule of customary international law.¹³⁵ Also, while the practice of including differentiated terms in multilateral environmental agreements may be considered widespread, there is too much inconsistency in its application and interpretation for it to be considered uniform.¹³⁶ Therefore, it is difficult to say that the CDR principle can be used as a conventional rule of customary law.

It is therefore probably too early to consider the CDR as a customary principle of international environmental law.¹³⁷ In fact, it is evident that the principle cannot be considered to be legally binding. However, as Rajamani states, the focus on the legal status of the principle is misplaced and the principle still holds weight and will continue to influence international environmental law for some time to come.¹³⁸ It might not be a rule of customary international law but it is certainly more authoritative than soft law.¹³⁹ In fact, the CDR principle has certainly influenced the development of international environmental law to date: it can be considered a framework principle and it will probably be the bedrock for burden sharing in international environmental law for some time to come.¹⁴⁰

¹³⁴ Statutes of the ICJ (note) Art.; this is contrast to the usual requirement that to be considered a rule of customary international law a principle should have existed and been maintained for long periods of time. See also Honkoken (note 78) at 300

¹³⁵ Honkoken (note 78) at 300

¹³⁶ Ibid

¹³⁷ French (note 74) at 387; Atapattu (note 22) at 387; Honkoken (note 78) at 301

¹³⁸ Rajamani (note 79) at 159

¹³⁹ Ibid

¹⁴⁰ Ibid; Birnie et al (note 47) at 135; Rajamani (note 7) at 124; Atapattu (note 22) at 387

It has been shown that the CDR principle has not emerged sufficiently from treaty law and customary international law in order to be considered a principle of international law. This as discussed may not be important as the principle has influenced the development of international environmental law to date. It may be useful to now consider the different forms of differentiation.

2.5 Forms of differentiation

Daniel Barstow Magraw recognises three ways in which differentiation between developed and developing countries can be achieved:¹⁴¹ through the use of absolute norms, contextual norms and differential norms.¹⁴² Differential norms are those that at face value provide different standards for different categories of States.¹⁴³ Contextual norms are those that seem to provide identical treatment to all States but whose application allows or requires the consideration of differences amongst countries.¹⁴⁴ Absolute norms are those that provide for the identical treatment of all States and do not permit the consideration of mitigating factors.¹⁴⁵

Several writers have quoted with approval Magraw's characterisation and it is used here as the basis to describe the different forms of the CDR principle.¹⁴⁶ This classification is chosen because although it was developed before the principle was coined in Principle 7 of the Rio Declaration, it

¹⁴¹ Other scholars have proposed different forms of differentiation. For example, while Christopher Stone identifies three versions of CDR, namely: rational bargaining CDR, equitable CDR and non-equitable CDR; these are related to the rationale for the principle rather than its form and function which is the purpose of this section.

¹⁴² Magraw (note 55) at 73 - 76

¹⁴³ Ibid

¹⁴⁴ Ibid

¹⁴⁵ Ibid

¹⁴⁶ See generally Cullet (note 60), French (note 74), Atapattu (note 22), Rajamani (note 7), Stone (note 47), Honkonen (note 78), Rajamani (note 79)

provides an apt description of the manner in which the principle (and indeed differentiation) has operated since its emergence at UNCED.

In the present study, three forms of differentiation are proposed: unconditional treatment (corresponding to the use of absolute norms), contextual differentiation (corresponding to the use of contextual norms) and concrete differentiation (corresponding to the use of differential norms).¹⁴⁷

Unconditional treatment

As already mentioned above, absolute norms provide identical treatment to all Parties. They do not require or permit the consideration of factors such as the socio-economic situation of the different Parties.¹⁴⁸ An example of this is CITES which applies uniform requirements for all Parties, regardless of the additional burden that implementation places on developing countries. They have the capacity to be precise but most tend to be ambiguous in nature, as they would have to be in order to secure as wide participation as possible.¹⁴⁹ Unconditional treatment is included in this study as a form of differentiation because although absolute norms are designed to treat all Parties identically, some treaties may inadvertently allow differentiation if they allow the use of reservations or interpretative statements.¹⁵⁰ So in this case, Parties may exempt themselves from certain provisions of a treaty by including these reservations and differing interpretations.

Contextual differentiation

Contextual differentiation, as with, contextual norms will seem to provide identical treatment of all States. All States would share the same

¹⁴⁷ Taken after Honkonen (note 78) at 111

¹⁴⁸ Magraw (note 55) at 76

¹⁴⁹ Ibid

¹⁵⁰ Biniiaz (note 41) at 360

commitments but the application of the obligations would however allow or require the consideration of varying characteristics or factors.¹⁵¹ This would typically require the balancing of multiple interests and factors. Contextual differentiation allows obligations that are usually indeterminate and wide latitude for compliance. It also allows flexibility in the implementation of agreements.¹⁵² Magraw argues that the use of contextual norms is desirable in four situations: i) when it is easier to reach consensus on contextual norm than on a precise issue or norm, ii) when the problems to be solved are clouded by uncertainty, iii) where the costs of determining a precise norm are too high and, iv) when changes to the situation/ problem are highly likely.¹⁵³

Concrete differentiation

Concrete differentiation as with differential norms provides different standards for different sets of actors. Concrete differentiation provides more advantageous sets of standards for one group of States over another.¹⁵⁴ It takes into account more than one type of interest and can be flexible or specific.¹⁵⁵ Concrete differentiation can be implemented in such a way as to make it obvious that one set is favoured and it allows States to take into account socio-economic factors in negotiating and implementing an agreement.¹⁵⁶

While unconditional treatment does not by its nature provide preferential treatment, contextual differentiation and concrete differentiation seem to provide preferential treatment for developing countries. To illustrate

¹⁵¹ Atapattu (note 22) at 394; Honkonen (note 78) at 111

¹⁵² French (note 47) at 39

¹⁵³ Magraw (note 55) at 73 - 76

¹⁵⁴ Ibid; Atapattu (note 22) at 394; Honkonen (note 78)

¹⁵⁵ French (note 47) at 39

¹⁵⁶ Ibid

this, attention will now focus on the methods for the implementation of the CDR principle.

2.6 Methods for differentiation

The tools for implementing the CDR are closely related to the forms of differentiation discussed above. While most of the tools for differentiation are associated with at least one form of differentiation they may however, be applicable to more than one. In fact the forms of differentiation are seldom implemented in isolation from each other but are usually employed in some combination.¹⁵⁷ These are not rigid classifications but rather a grouping of like instruments together. This discussion will be concerned with concrete differentiation and contextual differentiation because unconditional treatment is not designed to allow differentiation and it has already been illustrated in what instances differentiation may arise out of unconditional treatment.

Contextual differentiation

Contextual differentiation is generally flexible. It is usually implemented using grace periods and differentiated implementation timetables.¹⁵⁸ For example, the Montreal Protocol allows developing countries to delay their compliance with the obligations in the Protocol. Contextual differentiation can also be implemented by allowing flexibility in the approach to implementation.¹⁵⁹ It may also be implemented in agreements by making references to, or requiring the consideration of, the special needs and situation of developing countries.¹⁶⁰ Examples of this are the CBD,¹⁶¹ the UNCCD¹⁶² and the WHC which all require that the special

¹⁵⁷ Honkonen (note 78) at 112

¹⁵⁸ Sands (note 47) at 289; Biniaz (note 41) at 359; Atapattu (note 22) at 393; Stone (note 47) at 278; Rajamani (note 79) at 93

¹⁵⁹ Rajamani (note 79) at 93

¹⁶⁰ Biniaz (note 41) at 360; French (note 74) at 39; Atapattu (note 22) at 393; Stone (note 47) at 278

¹⁶¹ Various articles in the Convention e.g. Articles 5, 7,9, 10 and 14

needs of developing countries should be taken into consideration. The Montreal Protocol even goes so far as to state that the successful implementation of the Protocol will depend on developed countries fulfilling their obligations to provide financial, technological and capacity building assistance.¹⁶³

Contextual differentiation can also be implemented through the provision of international assistance which may be financial, technological or capacity building assistance.¹⁶⁴ For example, the Montreal Protocol establishes a Multilateral Fund to assist developing country Parties to implement the obligations of the Protocol. The Global Environment Facility (GEF), the funding entity for the Rio Conventions and some other multilateral environmental agreements, is another example of international assistance put in place to allow developing countries to meet their obligations under the various conventions.¹⁶⁵

Concrete differentiation

Concrete differentiation can usually be implemented using different categories of Parties or by applying different standards to different Parties or groups of Parties. In practice it is usually implemented using both. The Kyoto Protocol and the Montreal Protocol are good examples of treaties that implement differentiation through the use of different classes or categories of Parties. The Kyoto Protocol, places Parties into different categories. 'Parties included in Annex 1' refers to those States that are included in Annex 1 of the UNFCCC which contains mainly industrialised countries, and any other country which applies to be included there. Non-Annex 1 Parties are all other Parties that are not included in Annex 1 of the UNFCCC. Annex B of the Kyoto Protocol contains those that are included in

¹⁶² Articles 5 and 6

¹⁶³ Article 5 (5)

¹⁶⁴ French (note 74) at 41; Atapattu (note 22) at 393; Stone (note 47) at 278; Rajamani (note 79) at 93

¹⁶⁵ French (note 74) at 44; Stone (note 47) at 278; Cullet (note 60) at 573

Annex 1 that are required to take on emissions reductions targets while all other Parties are not required to. This is an example of how the Kyoto Protocol applies different standards or obligations to different countries or groups of countries.

Having explored the tools used to implement the CDR principle, the next section will deal with the strengths and weakness of the CDR principle as they relate to its acceptance as a principle of environmental law and its implementation internationally.

2.7 Weaknesses of the CDR Principle

The past few sections have dealt with the content, legal status, form and tools of implementation of the CDR principle. As the discussion of these has highlighted, there is a lot of disagreement and ambiguity with regards to the legal status, scope and content of the principle. There are other weaknesses related to the principle.

Apart from its vagueness, the unclear legal status and lack of universal appeal,¹⁶⁶ the CDR principle is plagued by the following weaknesses:¹⁶⁷

- It is not clear whether the principle was designed to evolve. Will there be a point where those States that are currently advantaged by its implementation will no longer require preferential treatment? At what point should this happen?
- There is no agreement as to when it applies. While it is assumed that the principle applies in the international arena, to global issues, it may also apply domestically. It also is not clear whether this principle will apply to all environmental treaties or only to certain agreements. Furthermore, it seems there is a tendency for developing countries to seek to apply the principle even in other realms of international law for example in the WTO.

¹⁶⁶ Atapattu (note 22) at 387

¹⁶⁷ Taken after Biniaz (note 41) at 360

- There is no definition of ‘developing’ and ‘developed’ to guide its implementation. This is one of the biggest weaknesses in the CDR principle. Related to this is the idea that there are only two categories to differentiate between: developed and developing.
- The principle is over-argued and there seems to be a growing tendency by developing countries to try and apply the principle retro-actively to all environmental treaties.
- While the interpretation of the CDR principle varies widely between developed and developing countries, both claim allegiance to the principles which creates tensions, particularly in the negotiation of new environmental agreements or new terms in existing ones.

It is apparent that there are some serious flaws associated with the CDR principle. It is the opinion of the author though, that these are not fatal flaws and that as international environmental law develops, these weaknesses may be resolved. After all, several treaties that are based on differentiation have been adopted and implemented fairly successfully.

2.8 Use of the principle in different treaties

This section will briefly discuss two multilateral environmental agreements that implement differentiation. The first is the Montreal Protocol which was negotiated, adopted and implemented before UNCED. The Montreal Protocol contains some of the most classical examples of differentiation in international environmental law. The second is the UNFCCC and its Kyoto Protocol.

2.8.1 The Montreal Protocol

Concern over the hole in the ozone layer and the impact it was having on human health and the environment¹⁶⁸ led to the adoption of the Vienna

¹⁶⁸ For example the increase in ultra-violet radiation (UVB) results in increased incidents of skin cancer in humans and leads to the extinction of phytoplankton in Antarctica. Sands (note 47) at 343

Convention on the Protection of the Ozone Layer (Ozone Convention) in 1985. In brief, the Convention obligates Parties to:¹⁶⁹

- Take appropriate measures to protect human health and the environment; examples include cooperation in observation and research and the adoption of legislative and administrative measures,¹⁷⁰
- Initiate and cooperate in research and scientific assessments¹⁷¹
- Facilitate the exchange of scientific, technical, socio-economic and legal information relating to the Convention; and cooperate in the development and transfer of technology and knowledge.¹⁷²

The Convention does not set any targets or timelines for action and is just a skeletal framework convention which required further refinement.¹⁷³ This was provided by the Montreal Protocol on Substance that Deplete the Ozone Layer (Montreal Protocol) which was adopted in 1987, entered into force on 1 January 1989 and has been ratified by 196 States.¹⁷⁴ It

¹⁶⁹ Birnie et al (note 47) at 349; Sands (note 47) at 344; Kurukulasuriya and Robinson (note 12) at 102; The Convention has been described as weak (for example while the Convention commits Parties to take 'appropriate measures' to protect the environment and human health, the nature of the measures is not defined. Neither does the Convention specify any particular substances to be controlled).and this mostly has to do with the fact that it seeks to balance the interests of the US, the European Commission and developing countries (particularly India, Brazil and China). The US was concerned that the unilateral actions that it had taken to reduce CFCs would place its own industries at a disadvantage if global action was not taken. The EC, where most CFC producing industries were located was concerned with the protection of those industries. Developing countries were concerned that any regime that restrained their use of ozone-depleting substances would inhibit their industrial growth and development agendas.

¹⁷⁰ Article 2

¹⁷¹ Article 3

¹⁷² Article 4

¹⁷³ Ibid

¹⁷⁴ Birnie et al (note 47) at 349; Sands (note 47) at 344; Kurukulasuriya and Robinson (note 12) at 102

establishes targets and timelines for reducing and eliminating a range of substances that deplete the ozone layer.¹⁷⁵

The Protocol has subsequently been amended by the London Amendment (1990),¹⁷⁶ the Copenhagen Amendment (1992),¹⁷⁷ the Vienna Amendment (1995),¹⁷⁸ the Montreal Amendment (1997)¹⁷⁹ and the Beijing Amendment (1999).¹⁸⁰

While the commitments under the Montreal Protocol are the same for all Parties, it contains special provisions for developing countries which are considered by many to be innovative.¹⁸¹ It does not make specific mention of the CDR principle it is certainly a clear example of how the principle should operate.¹⁸² It was formulated to ensure the participation of developing

¹⁷⁵ These substances are listed in Annexes A to E of the Protocol and are to be phased out according to the schedules laid out in Articles 2A to 2E. The main chemicals controlled by the Protocol are chlorofluorocarbons (CFCs), halons, and hydrochlorofluorocarbons (HCFCs).

¹⁷⁶ New scientific evidence pointed to the inadequacy of the standards contained in the Protocol and therefore the second Meeting of the Parties (MOP) adopted the London Adjustments and Amendments which introduced restrictions on CFCs and halons were tightened and two new substances (tetrachloromethane and trichloroethane) were introduced. Secretariat of the Montreal Protocol 'Evolution of the Montreal Protocol' Available at http://ozone.unep.org/Ratification_status/evolution_of_mp.shtml [Accessed 12 January 2010]; Birnie et al (note 47) at 351; Sands (note 47) at 346; Kurukulasuriya and Robinson (note 12) at 103; Kiss and Shelton (note 101) at 318

¹⁷⁷ The fourth MOP adopted the Copenhagen Amendments which increased the restrictions on CFCs, halons, tetrachloromethane and trichloroethane. HCFCs and hydrobromofluorocarbons (HBFCs) and methyl bromide were included in the list of controlled substances.

¹⁷⁸ The seventh MOP adopted the Vienna Amendment. These amendments introduced a phase-out timetable for industrialized countries methyl bromide (to be completely phased out by 2010), strengthened the restrictions on industrial country use of HCFCs and introduced a phase out timetable for HCFCs (2030 for industrialized countries and 2040 for developing countries)

¹⁷⁹ The Montreal Amendment was adopted by the ninth MOP and accelerated the phase out date of methyl bromide from 2010 to 2005 and introduced the requirements for licensing systems.

¹⁸⁰ The eleventh MOP adopted the Beijing Amendment which added bromochloromethane to the list of controlled substances and required that it was to be phased out by 2002

¹⁸¹ Birnie et al (note 47) at 349; Sands (note 47) at 344; Kurukulasuriya and Robinson (note 12) at 102; Atapattu (note 22); French (note 74); Cullet (note 60)

¹⁸² Honkonen (note 78) at 116

countries, taking into consideration their special needs, their low contribution to ozone-depletion and the fact that growth in the use of ozone-depleting substances was likely to occur in developing countries rather than developed countries.

In addition to preambular statements that recognise that ‘take into account the developmental needs of developing countries’ and that global emissions of certain substances should be ‘equitably’ controlled, the Montreal Protocol (1987) gives developing countries three special privileges:

- Developing countries were given a ten year grace period that temporarily excludes them from obligations to phase out ozone-depleting substances.¹⁸³
- Developing countries were also given different base years for the calculation of phase-out commitments.¹⁸⁴
- Developing countries were provided with access to financial and technical assistance.¹⁸⁵ Furthermore, the Protocol states that the capacity of developing countries to meet their commitments under the Protocol would depend on developed countries meeting their financial and technological transfer obligations. It establishes a financial mechanism, for financial and technical cooperation. In addition a Multilateral Fund is established with the purpose of meeting the incremental costs of implementation of the Protocol.¹⁸⁶

As seen from the above, the Montreal Protocol makes wide use of contextual differentiation through the establishment of delayed implementation schedules and international assistance in the form of

¹⁸³ Articles 5 (1) and 5 (2)

¹⁸⁴ Article 5 (3)

¹⁸⁵ Articles 10 and 10A

¹⁸⁶ Articles 10 (2) and 10 (3)

technical and financial cooperation. So even though the Montreal Protocol was negotiated and adopted before the articulation of the CDR in Principle 7 of the Rio Declaration, it implements the rationale, forms and methods of the CDR principle.

Another treaty that implements the CDR principle is the UNFCCC which shall now be discussed.

2.8.2 The UNFCCC and the Kyoto Protocol¹⁸⁷

The UNFCCC

The UNFCCC is based on the CDR principle.¹⁸⁸ Differential treatment is evidenced throughout the Convention, beginning with the Preamble, through the principles and to the substantive commitments. The Preamble states that climate change should reflect the environmental and developmental context, that ‘standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries,’¹⁸⁹ and that GHG emissions in developing countries will have to continue to grow to allow these countries to meet their social and development needs.¹⁹⁰

Furthermore, Article 3 contains an explicit reference to the CDR principle, stating that Parties should protect the climate system for future and present generations on ‘the basis of equity and in accordance with their common but differentiated responsibilities and capabilities.’¹⁹¹ The commitments contained in Article 4 are prefaced by the chapeau that states that all Parties must take ‘into account their common but differentiated

¹⁸⁷ Although the provisions of the UNFCCC and Kyoto Protocol have been briefly discussed in Section 1.2 above, this section will discuss them in more detail in order to highlight how the CDR principle has been implemented by the Convention and the Protocol.

¹⁸⁸ Honkonen (note 78) at 122; Birnie et al (note 47) at 358 - 359

¹⁸⁹ Preambular paragraph 10

¹⁹⁰ Preambular paragraph 3

¹⁹¹ Article 3 (1)

responsibilities and their specific national and regional development priorities.¹⁹² It is important to note as discussed in section 2.4 that the CDR principle is not a binding rule but rather that it has the character of an influential soft law principle.¹⁹³

Although the UNFCCC is, as its name suggests, a framework convention, it does establish some commitments, a financial mechanism, important guiding principles (which should be implemented by any protocols to the convention) and subsidiary bodies to the Convention.¹⁹⁴ The Convention has three categories of Parties: Parties included in Annex I (also known as Annex I Parties – these are all industrialised Parties); Parties included in Annex II (also known as Annex II Parties – these are mainly Parties belonging to the Organisation for Economic Cooperation and Development [OECD]); and Parties not included in Annex I (also known as Non-Annex I Parties – these are mainly developing countries). Commitments are allocated along these lines.

The following paragraphs will provide a summary of the obligations for the different categories of Parties under the Convention, and will highlight how the CDR principle has been implemented in the UNFCCC.

General obligations

All parties are required amongst other things to prepare national inventories of GHG emissions; conserve and enhance sinks and reservoirs of GHGs; implement measures to mitigate climate change; promote and cooperate in the development and diffusion of technologies that reduce GHG

¹⁹² Article 4

¹⁹³ Many scholars have reported the tensions between developed and developing countries regarding the insertion on an article specifically dealing with ‘Principles’. Even though developing countries sought to include binding principles as a separate article, developed countries were opposed to this as they did not want the principles to attain the status of customary law. See for example, Honkonen (note 78) at 123; Rajamani (note 7) at 125; Sands (note 47) at 358; Birnie et al (note 47) at 359

¹⁹⁴ Sands (note 47) at 359

emissions; cooperate in preparing for adaptation to climate change; and prepare and submit national communications to the COP.¹⁹⁵

GHG emission reduction commitments

Annex I Parties are required to adopt national policies and measures with the aim of returning their GHG emission levels, individually or jointly to 1990 levels by the year 2000.¹⁹⁶ Scholars consider these commitments to be soft targets which do not contain strong, clear commitments.¹⁹⁷ Non-Annex I Parties have no emission reduction commitments under the Convention. Parties that were making the transition to market economies (also known as Countries with Economies in Transition or CEIT) when the Convention was negotiated were given flexibility in implementing their commitments.¹⁹⁸

Financial and technology transfer

Annex II Parties are required to provide new and additional financial resources to developing countries for the full costs of meeting their reporting requirements under the Convention.¹⁹⁹ Furthermore, Annex II Parties are required to provide financial resources to help developing countries meet the incremental costs for undertaking their general obligations under the Convention.²⁰⁰ Annex II Parties are also required to provide assistance to countries that are particularly vulnerable to adapt to the impacts of climate change.²⁰¹ Finally, Annex II Parties are required to take steps to promote,

¹⁹⁵ Article 4(1)

¹⁹⁶ Article 4(2)

¹⁹⁷ Article 4(2). Niklas Hoehne 'Evolution of commitments under the UNFCCC: Involving newly industrialised economies and developing countries' Available at http://www.umweltbundesamt.de/uba-info-medien-e/mysql_medien.php?anfrage=Kennummer&Suchwort=2235 [Accessed: 15 June 2009]; Birine et al (note 47) at 360; Sands (note 47) at 365

¹⁹⁸ Article 4 (6)

¹⁹⁹ Article 4(3)

²⁰⁰ Ibid

²⁰¹ Article 4(4)

facilitate and finance the transfer of technology and expertise to developing country Parties.²⁰² The Convention states that the ability of developing countries to meet their obligations under the Convention will depend on Annex II Parties fulfilling their commitments for finance and technology transfer.²⁰³ These are obligations for Annex II Parties only.

Reporting requirements

All parties are required to communicate to the COP information relating to steps taken to implement the Convention, national inventories of GHG sources, sinks and reservoirs.²⁰⁴

The Convention requires Annex 1 Parties to submit initial communications within 6 months of entry of force of the Convention for them, and annually thereafter.²⁰⁵ Non-Annex 1 Parties were only required to make their initial communications after three years or after financial resources had been made available to them.²⁰⁶ Least developed countries were only required to submit initial communications at their own discretion.²⁰⁷

Annex 1 Parties are further required to include detailed information regarding measures and policies to mitigate climate change, a specific estimate of the impact these policies and measures are expected to have on GHG emissions trends, and information regarding their provision of funds and facilitation of the transfer of technology to developing countries.²⁰⁸

²⁰² Article 4(5)

²⁰³ Articles 4(3) and 7

²⁰⁴ Articles 4(1)(j) and 12(1)

²⁰⁵ Article 12(5)

²⁰⁶ *Ibid*

²⁰⁷ *Ibid*

²⁰⁸ Articles 12 (2) and 12(3)

As seen from the above, the Convention utilises both concrete differentiation through the creation of different categories of Parties with different commitments, and contextual differentiation through the provision of financial and technological assistance and language exhorting the consideration of the special needs of developing countries. This is carried over into the Kyoto Protocol.

The Kyoto Protocol

Almost as soon as the UNFCCC entered into force, Parties began to review the commitments contained in the Convention.²⁰⁹ This was in response to scientific evidence that the commitments were not adequate to achieve the goal of avoiding catastrophic climate change. The COP launched a negotiation process that resulted in the adoption of the Kyoto Protocol at the third COP.

The Kyoto Protocol differentiates amongst Parties in three main ways. While Annex I Parties are allocated mitigation commitments, non-Annex I Parties are not assigned any binding emissions reduction obligations. Secondly, amongst those Parties with mitigation commitments, CEIT were granted concessions with regards to the implementation of the Protocol in accordance with Article 4(6) of the Convention. This has mainly been through the use different years as the reference points for the calculation of their GHG emission reduction commitments. Lastly, only Annex II Parties are required to fund the financial and technological flows to developing countries that are required by the Protocol.

This chapter has analysed in detail the CDR principle. It has traced the development of differential treatment in international law from treaty law in the early 1900s, through international trade and economic development, to the post-Stockholm era of multilateral environmental agreements. The chapter has discussed the rationale for the CDR principle, the content and the legal status of the principle. The different forms of and tools for

²⁰⁹ Kiss and Shelton (note 101) at 322

differentiation have been discussed and two different treaties have been used to illustrate the implementation of differential treatment in international environmental law.

A question central to this study remains unanswered. Has the CDR principle been designed to evolve or does its application remain rigid with no flexibility in the definitions used to differentiate amongst different States? Does the principle include a mechanism by which some developing countries could at some point begin to take on responsibilities, or conversely by which some developed countries could be relieved of their commitments? Chapter 3 will discuss these questions in detail.

3 Chapter 3 – Evolution and graduation

Given the rationale for the CDR principle and the role it plays in the UNFCCC and the Kyoto Protocol, it is important to understand whether the scope of the principle allows for progression in the status of developing countries. This chapter will discuss whether the CDR principle is flexible enough to permit developing countries that have advanced to a certain stage to take on commitments within the climate change treaty system. The chapter begins by analysing whether the CDR principle encompasses the notions of evolution and graduation. It then moves on to suggest a definition of the concepts of evolution and graduation before it ends with a brief discussion of some of the most prominent models for evolution and graduation that have been proposed to date.

3.1 The CDR principle and the need for evolution and graduation

The differing interpretations of the CDR principle certainly present an obstacle to its acceptance as a principle of international environmental law. For example, while the US Senate accepts that the CDR principle is important for the climate change treaty system, it maintains that the principle requires that all Parties should accept emissions reduction commitments, and that these should be differentiated amongst the Parties.²¹⁰ On the other hand, developing countries argue that the CDR principle exempts them from taking on emissions reduction commitments.

There is therefore, a need to reconcile these two opposing interpretations. More specifically, there is a need to ascertain whether the CDR principle results in permanent divisions amongst Parties, whether it allows flexibility and evolution of the status of Parties or whether it exempts developing countries from ever taking mitigation commitments.

²¹⁰ Stone (note 47) and Rajamani (note 7) both report that in the immediate aftermath of the adoption of the Kyoto Protocol, the US Senate was in support of the CDR principle and the fact that the principle requires that developing countries should have lower, and in some cases zero, commitments.

In order to do this, it is necessary to revisit the Principle 7 of the Rio Declaration which states that

... In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command...

A careful reading of Principle 7 reveals that it does not create rigid or static divisions. Furthermore, Principle 7 does not imply any special exemption of developing countries from being assigned any commitments in international agreements. In fact, apart from developed countries acknowledging that they bear a responsibility in the pursuit of sustainable development, Principle 7 stops short of requiring developed countries from taking the (only) burdens in multilateral environmental agreements and in transferring technologies and finances to developing countries.²¹¹ In the climate change context Article 3 of the UNFCCC, states that

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

Again, there is nothing in this Article that suggests explicitly or implicitly that the CDR principle is inflexible and that developing countries should be afforded a permanent exemption from any binding emissions reduction commitments, apart from stating that developed countries should take the lead in combating climate change.²¹²

²¹¹ French (note 74) at

²¹² *Ibid*

Furthermore, an extensive review of the literature on the objectives, scope and content of the CDR principle,²¹³ does not reveal any interpretation that suggests that developing countries, with their special circumstances and their low contributions to environmental degradation should be excused from any commitments in the climate regime.²¹⁴ In fact, Rajamani argues that at some point in the evolution of each multilateral environmental agreement, the CDR principle should not be necessary as any and all valid grounds for its existence expire.²¹⁵

Moreover, given the scale of global warming and the urgency required to avoid catastrophic climate change, advanced developing countries will have to take on some form of emissions reductions commitment because even if developed countries were to reduce their emissions to zero this would no longer be sufficient to deal with the climate change problem.²¹⁶ What is more, the absolute emissions of some developing countries will overtake the emissions of developed countries in the near future.²¹⁷ In fact it is estimated

²¹³ Please see Chapter 2 for an in-depth review of the history, rationale, content, legal status and weaknesses of the CDR Principle. See also authors such as Cullet (note 60); Rajamani (note 79); Honkonen (note 78)

²¹⁴ See for example Cullet (note 60); Stone (note 47); Rajamani (note 7); Rajamani (note 79); Honkonen (note 78); French (note 74);

²¹⁵ Rajamani (note 79) 173 - 174

²¹⁶ This is attributed to the amount of GHGs already in the atmosphere and the so called lag effects where climate effects of GHGs released into the atmosphere only manifest several years later. Herman Ott et al 'South-North Dialogue on Equity in the Greenhouse' at 2. Available at <http://www.erc.uct.ac.za/Research/publications/04Ott-et-al-SouthNorthDiaLogue.pdf> [Accessed 15 January 2010]; Harald Winkler et al 'Future mitigation commitments: differentiating among non-Annex 1 countries' (2006) 5 5 *Climate Policy* 469 at 470; Niklas Hoehne and Esther Lahme 'Types of future commitments under the UNFCCC and the Kyoto Protocol post 2012' at 5. Available at <http://assets.panda.org/downloads/ecofyspost2012targets20sept05.pdf> [Accessed 15 January 2010]; Asbjorn Torvanger et al 'Broadening the climate regime' at 1. Available at <http://www.cicero.uio.no/media/3604.pdf> [Accessed 15 January 2010]

²¹⁷ This does not include the historical emissions of developed countries since the age of industrialization began. It refers only to current annual emissions. Hoehne and Lahme (note 216) at 5; MGJ den Elzen 'Exploring post-Kyoto climate regimes for differentiation of commitments to stabilize greenhouse gas concentrations' at 2. Available at <http://rivm.nl/bibliotheek/rapporten/728001020.pdf> [Accessed 15 January 2010]; Marcel Berk et al 'Options for differentiation of future commitments in climate policy: how to realize timely participation to meet stringent climate goals?' (2001) 1 1 *Climate Policy* 465 at 466

that China has overtaken the USA as the world's largest emitter of carbon-dioxide.²¹⁸ Advanced developing countries should therefore participate in mitigation commitments in a way that conforms with the CDR principle.

There is therefore a need, when discussing and implementing the CDR principle, to move beyond the simple (but deeply entrenched) divide between developed and developing countries.²¹⁹ This is particularly so as there is no accepted definition of developed and developing countries in the UNFCCC and the Kyoto Protocol.²²⁰

This need could be fulfilled through the development of a mechanism for the evolution of the climate regime and the graduation of certain developing countries within the regime herein after referred to collectively as 'evolution and graduation'.

3.2 Definition of the concepts of evolution and graduation

The simple developed/ developing country divide masks differences amongst developing countries (and developed countries as well).²²¹ For example there are vast differences between South Korea and Mozambique, which are both classed as developing countries within the climate change regime. South Korea is ranked 26th in the Human Development Index (HDI) while Mozambique is at 172, near the bottom of the rankings.²²² At the same time there are also big differences between Norway which is ranked first in the HDI and the Ukraine which holds 85th position.

²¹⁸ International Energy Agency 'Carbon dioxide emissions from fuel combustion – highlights. 2009 edition' Available at <http://www.iea.org/co2highlights/CO2highlights.pdf> [Accessed 15 January 2010];

²¹⁹ Honkonen (note 78) at 179; Cullet (note 43) at 110; Torvanger (note 216) at 7;

²²⁰ Cullet (note 43) at 113; Honkonen (note 78) at 187; Hoehne et al (note 216) at 12

²²¹ Honkonen (note 78) at 179; Cullet (note 43) at 110

²²² The HDI is compiled by the United Nations Development Programme (UNDP) and is an indicator of the level of the advancement of countries. It is made up of three elements namely: life expectancy (which is used as an indicator of population health and longevity); knowledge and education (includes adult literacy rates, and primary, high and tertiary enrolment rates); and standard of living (measured as gross domestic product per capita). See also UNDP 'Human Development Report 2009.' Available at <http://hdr.undp.org/en/>

Since the UNFCCC and Kyoto Protocol annexes were created in the early to mid-1990s the circumstances of different countries have changed, some for the better and some for worse.²²³ Some non-Annex 1 countries such as South Korea, Singapore and Qatar are more affluent than many Annex 1 countries.²²⁴ Mechanism are therefore required to update the commitments contained within the UNFCCC and Kyoto Protocol to reflect these changes in circumstances. Two such mechanisms are evolution and graduation.

There have been more than a few articles and other publications dedicated to proposing different models for evolution and graduation although none of them have explicitly defined them.²²⁵ In order to set the parameters for this discussion on evolution and graduation it is necessary to provide working definitions for these terms. It is therefore submitted that in the context of the UNFCCC and Kyoto Protocol evolution is

... the adjustment of the treaty over time to include more participants in mitigation commitments, specifically aimed at involving those developing countries with large and rapidly growing economies and ever increasing greenhouse gas emissions....

While evolution can involve any Party that does not currently have emissions reduction commitments, it is specially framed to involve the so called 'emerging economies.'²²⁶ Evolution can either be incremental with a gradual increase in Parties or it can be drastic or comprehensive, involving structural changes to the legal architecture of the treaty concerned.²²⁷

²²³ Honkonen (note 78) at 188; Cullet (note 43) at 112

²²⁴ UNDP (note 222).

²²⁵ See for example Hoehne et al (note 176); Honkonen (note 78); Hoehne and Lahme (note 216); Den Elzen (note 217); Ott et al (note 216); Winkler et al (note 216); Torvanger et al (note 216)

²²⁶ Emerging economies is used here to designate those newly industrialised countries and rapidly industrialising countries

²²⁷ Den Elzen (note 217) at 2; Berk et al (note 217) at 466

In the context of the UNFCCC and Kyoto Protocol it is submitted that graduation can be defined as

... the progression of a country or group of countries from one level of mitigation commitments to another....

Graduation is a subset of evolution and can take place on an ad-hoc basis or it can be based on pre-defined rules.²²⁸

Furthermore, for purposes of this discussion evolution and graduation are placed within the framework of the CDR principle. That is to say that evolution and graduation can only be justified if they contribute to the objectives of the principle namely: i) to achieve substantive equality; ii) to assign responsibility for contribution to the problem; iii) to assign responsibility in relation to capabilities and; iv) to achieve better and more effective participation.²²⁹

Evolution and graduation seek to answer the big question of who mitigates and by how much?²³⁰

3.3 Forms of evolution and graduation already proposed

How can evolution and graduation be designed in such a way that they are in keeping with the CDR principle and do not jeopardise the legitimate development needs of developing countries? Various models for post 2012 climate change mitigation commitments with elements of evolution and graduation have been proposed and many of them incorporate the CDR principle. These models generally fall into two significant groups: one

²²⁸ Berk et al (note 217) at 466

²²⁹ For a detailed discussion of these objectives please see Section 2.2 above.

²³⁰ Winkler et al (note 216) at 269; Ott et al (note 216) at 2

modelled on the theory of contraction and convergence and the other on the theory of responsibility and capabilities.²³¹

In this section we will examine four prominent proposals that have strong evolution and/ or graduation elements. These are contraction and convergence (the original model), the multi-stage approach, equity in the greenhouse framework and the greenhouse development rights framework.

3.3.1 Contraction and convergence

The contraction and convergence (CC) model was first developed by the Global Commons Institute (GCI) in the early 1990s.²³² It approaches emissions reduction commitments from a resource sharing perspective rather than a pollution control problem. The global atmosphere is viewed as a global commons which should be shared equally between the people and countries of the world.²³³

There are three steps in the CC model. In the first step, a global emissions pathway is agreed. This pathway leads to the long-term reduction of global GHG emissions to arrive at a concentration that is deemed to be safe.²³⁴ Thus the global GHG emissions would fall on an annual basis until they reach that safe level. This first step is termed ‘contraction.’²³⁵ In the second step, annual emissions limits would be set and each country would be allocated a share of this limit.²³⁶ Any country with surplus emissions

²³¹ Paul Baer and Tom Athanasiou ‘Frameworks and proposals: A brief, adequacy and equity-based evaluation of some prominent climate policy frameworks and proposals’ at 7. Available at <http://www.boell.de/ecology/climate/climate-energy-1967.html> [Accessed 15 January 2010]

²³² Hoehne et al (note 176) at 26

²³³ Berk et al (note 217) at 475

²³⁴ The GCI proposed carbon-dioxide concentrations of 450 parts per million by volume by the year 2100. Global Commons Institute ‘Contraction and convergence. A global solution to a global problem.’ Available at <http://www.gci.org.uk/contconv/cc.html> [Accessed on 15 January 2010]

²³⁵ Ibid; Baer and Athanasiou (note 231) at 14; Hoehne et al (note 176) at 41

²³⁶ Ibid

allocations (most likely to be developing countries), would be able to sell them to countries where there would be emissions shortfalls (most likely to be developed countries), which would probably be in developed countries.²³⁷

In the final step called ‘convergence,’ global emissions limits and allocations would reduce per year so that at some point in the future, all countries would have equal per capita emissions.²³⁸ So although allocations would initially reflect the current emissions profiles, over time they would reach a stage where countries are allocated equal per capita emissions limits.²³⁹ In this step, countries receive emissions allocations in proportion to the size of their populations. At some point in the future there would be a cut-off point where increases in population would no longer be counted and a maximum population size that would be counted towards the calculation of emissions allocations.²⁴⁰

The CC model proposes evolution through the total restructuring of the architecture of the climate treaty system in that it would allocate per capita emissions rights to all Parties. That is, all Parties – developing and developed – would participate in the regime from the beginning and there would be no annexes. In the beginning emissions allocations would be differentiated and would eventually converge to become equal. Theoretically, those countries with large populations would have large allocations and vice versa. This model would also, in theory favour some developing countries because while they would get relatively large emissions allocations, they would only use a small proportion of them and sell the rest, thus facilitating the flow of funds to the developing world.

The CC model is, at face value, a progressive proposal for implementing the CDR principle in the UNFCCC and Kyoto Protocol. There are, however,

²³⁷ Ibid

²³⁸ Ibid

²³⁹ Ibid

²⁴⁰ Ibid

some weaknesses with the model that should be highlighted. Firstly, although it would seem as if developing countries would benefit from selling excess allocations,²⁴¹ the model does not take into account the historical responsibility of developed countries, one of the principal elements of the CDR principle.²⁴² The model also does not take into account capability to pay, another important element of the principle.²⁴³

3.3.2 The multi-stage approach

The Multi-Stage Approach (MSA) was based on a proposal by Brazil to the Ad-Hoc Working Group on the Berlin Mandate (AGBM)²⁴⁴ which suggested that emissions reduction commitments should be shared amongst Annex 1 Parties based on their contribution to global temperature rise and climate change.²⁴⁵ The approach has been developed and refined by various scholars.²⁴⁶

The model is based on the capability-responsibility (CR) index which is used to calculate each country's share of emissions reduction commitments. The responsibility of each country is defined as the per capita carbon-dioxide emissions and capability is the per capita income of each country.²⁴⁷ The model proposes the incremental evolution of the climate treaty

²⁴¹ Baer and Athanasiou (note 231) 15 – 18 argue that most developing countries would actually be hampered by the allocation of emissions rights envisaged by this model. They point to the legitimate need of most developing countries to develop (and hence increase emissions) and state that the allocations would not be sufficient to cover this need.

²⁴² *Ibid*; Hoene et al (note 176) 43 – 44; Baer et al (note 42) at 104

²⁴³ *Ibid*

²⁴⁴ The AGBM was constituted in 1995 by the UNFCCC COP 1 to begin a process that would eventually lead to the adoption of the Kyoto Protocol. Kiss and Shelton (note 101) at 322; Kurukulasuriya and Robinson (note 12) at ;

²⁴⁵ Hoehne et al (note 176) at 26; Den Elzen (note 217) at 10

²⁴⁶ See for example Den Elzen (note 217); Torvanger et al (note 216); De Elzen et al (note 216); Berk et al (note 217)

²⁴⁷ Torvanger (note 216) at 1; Honkonen (note 78) at 181; Hoehne et al (note 176) at 26

system²⁴⁸ with the gradual expansion over time of the UNFCCC's Annex 1 and the possible addition of other annexes.

The MSA proposes three²⁴⁹ categories into which countries are divided according to their development levels and needs.²⁵⁰ The model aims to place countries with similar economic, development and social attributes in the same group thus assigning them comparable efforts.²⁵¹ The categories and their related commitments are as follows:²⁵²

Stage 1: countries in this category are the least developed countries that are most concerned with securing the basic needs of their populations. Correspondingly, the countries in this category have no quantified emissions reduction or limitation commitments and are allowed to follow an unconstrained development (and emissions) pathway.²⁵³ Countries in this category would be Angola, Sri Lanka, Bangladesh, Iraq and Vietnam.²⁵⁴

Stage 2: countries in this category are those that have rapidly growing economies and concomitantly high GHG emissions. These are mostly advanced developing countries. These countries have their emissions limited when compared to a business as usual pathway. This could either be achieved through improving the carbon intensity of their economies or an

²⁴⁸ Den Elzen (note 217) at 2

²⁴⁹ Some variations of the model propose 4 categories.

²⁵⁰ Den Elzen (note 217); Torvanger et al (note 216); De Elzen et al (note 216); Berk et al (note 217)

²⁵¹ Den Elzen et al (note 216) at 2

²⁵² Ibid

²⁵³ Ibid

²⁵⁴ Torvanger et al (note 216); The countries placed in each category would depend on the factors or criteria used to define the stages and the thresholds that are set for each category. For example if HDI is included in the criteria then Iraq would be placed in Stage 1 and if HDI is not included then Iraq would fall into Stage 2.

absolute slowing down of emissions growth. The magnitude of the emissions limitation would correspond with each country's capability (defined as GDP per capita).²⁵⁵ Countries that would be found in this category include China, Indonesia, Egypt, Botswana, South Africa, Thailand and Mexico.²⁵⁶

Stage 3:²⁵⁷ the countries in this category are industrialised and have historical responsibility for causing global warming and climate change. Emissions reduction commitments are allocated according to each country's responsibility for climate change.²⁵⁸ The countries in this category have binding commitments to reduce their emissions in absolute terms. In addition to emissions reduction commitments, countries in this category would be obligated to provide finance, technology and capacity building to help developing countries move from one category (stage) to another.²⁵⁹ All countries in Annex 1 would automatically be placed in this category. Other countries that could be found in this category include Singapore, Saudi Arabia, Kuwait, South Korea, Israel and Cyprus.

Developing countries would move from one stage to another or graduate, after exceeding certain agreed thresholds for example after reaching a certain GDP per capita.²⁶⁰ The model assumes that developing countries would achieve net gains rather than net losses in moving from one

²⁵⁵ Ibid

²⁵⁶ Torvanger et al (note 216)

²⁵⁷ A fourth possible category could be placed before Category 3 in which developing countries would be required to stabilise their emissions for a certain length of time before starting on absolute emissions reduction commitments. See for example Den Elzen (note 216).

²⁵⁸ As per the Brazilian proposal, each country's individual reduction would depend on its historical contribution to climate change and would be proportional to its share of GHG emissions per capita

²⁵⁹ Ibid

²⁶⁰ Hoehne et al (note 176) at 50

stage or category to another (from the finance and technology transfers received).²⁶¹ The constituents of each category, the thresholds for each category and the commitments for each category 2 and 3 country would be reviewed after each commitment period. Countries that have exceeded certain thresholds would then be moved from one category to another.²⁶²

This model caters for most aspects of the CDR principle.²⁶³ In fact the model has some innovative features which if adopted could lead to a relatively equitable climate regime. However, the model does have some weaknesses. Firstly, it would restrict the growth of most rapidly industrialising countries by requiring them to limit and in some cases reduce their GHG emissions²⁶⁴ and this would not be equitable. Secondly, the model is quite complex including many different policy variables.²⁶⁵ Finally, the model could potentially ignore the role historical responsibility has played by placing developing countries such as Singapore and Chile in the same category as Annex 1 countries. This is not likely to be accepted by any developing country.²⁶⁶

3.3.3 Equity in the greenhouse

The Equity in the Greenhouse (EIG) model was developed by the South-North Dialogue (SND) in 2004.²⁶⁷ It is related to the MSA model described in Section 3.3.2 above and as such is based on the Brazilian proposal and also proposes the incremental evolution of the climate treaty system with the gradual expansion over time of the UNFCCC's Annex 1 and the addition of

²⁶¹ Honkoken (note 78) at 181

²⁶² Den Elzen (note 217) at 4

²⁶³ Den Elzen (note 216) at 2

²⁶⁴ Baer and Athanasiou (note 231)

²⁶⁵ Den Elzen et al (note 216) at

²⁶⁶ Torvanger (note 216) at 22

²⁶⁷ Ott et al (note 216) at 5; Winkler et al (note 216) at 469; Honkoken (note 78) at 188; Baer and Athanasiou (note 231) at 22

other annexes. The EIG model proposes six categories into which countries are divided. The UNFCCC categories (Annex I/ Annex II/ non-Annex I) as the basis for the model.²⁶⁸

Each category has different mitigation commitments as calculated by the responsibility-capability-potential indicator (RCP). Responsibility is based on per capita cumulative carbon-dioxide emissions for the period 1990 – 2000.²⁶⁹ Capability is based on two indicators: HDI and GDP per capita.²⁷⁰ Potential to mitigate is related to two factors: the carbon intensity of the country's economy and the emissions per capita of the country.²⁷¹

The six categories proposed by the EIG model are as follows:²⁷²

Annex II: this category contains the same countries as Annex II of the UNFCCC. The countries in this category have binding commitments to undertake 'quantified' absolute emissions reductions.²⁷³ These would be more demanding than the Kyoto commitments.²⁷⁴ In addition, they would have to provide funds and technology to countries in the different developing country

²⁶⁸ Ibid

²⁶⁹ Winkler et al (note 216) at 475. The authors use the cumulative emissions from 1990 as an indicator for historical responsibility. 1990 is used because it is assumed that by 1990 the implications of fossil fuel use were well known internationally, and so countries could be expected to take responsibility for their actions after that date. Taking into account emissions before 1990 would be punishing countries for activities whose consequences they were not aware of.

²⁷⁰ Ibid. The authors state that this criterion is used because a country's capacity to reduce GHG emissions may be different from its responsibility. Therefore, a country may have high historical emissions but be quite poor, therefore not having the capability to reduce its emissions. Conversely, a country with a high national income would be expected to carry a higher mitigation burden.

²⁷¹ Ibid. Countries with high carbon intensities would be assumed to have a high potential to mitigate and high per capita emissions would signal unsustainable consumption patterns which could be altered without endangering basic lifestyle factors.

²⁷² Ott et al (note 216); Winkler et al (note 216)

²⁷³ Ott et al (note 216); Winkler et al (note 216); Baer and Athanasiou (note 231)

²⁷⁴ Ott et al (note 216) at 5

categories to undertake their own emissions reductions and limitations.²⁷⁵

Economies in transition (EIT): this category is constituted of those countries included Annex I but not Annex II, of the UNFCCC. These are mainly those countries making the transition to a market based economy. Countries in this category would also have to undertake quantified emissions reduction commitments, but would have low or no obligations to provide funding to developing countries.²⁷⁶

Newly industrialised countries (NICs): this is the group of developing countries that have reached a high level of development as evidenced by elevated levels of wealth and other HDI indicators. The countries in this category would have to undertake quantified absolute emissions reduction or limitation commitments, if they are provided with finance and technology from Annex II countries.²⁷⁷ Otherwise, they would only undertake qualitative emissions limitations. These countries would be obligated to implement sustainable development policies and undertake renewable energy and energy efficiency targets (these would be self-funded). Countries in this group include Bahrain, South Korea, Kuwait and Trinidad and Tobago.²⁷⁸

Rapidly industrialising developing countries (RIDCs): this category includes countries that have had relatively rapid industrial growth and relatively high income. The countries in this category would have to undertake absolute emissions

²⁷⁵ Ibid

²⁷⁶ Ibid

²⁷⁷ This finance would be used to fund the incremental costs of meeting the NICs mitigation commitments.

²⁷⁸ Ott et al (note 216); Winkler et al (note 216); Baer and Athanasiou (note 231)

limitation commitments, provided they receive finance and technology from Annex II countries.²⁷⁹ If finance is not received they would only be committed to qualitative targets. The countries in the category are also required to implement sustainable development policies and undertake renewable energy and energy efficiency targets (these would be co-funded by countries in Annex II). Countries in this category would include Brazil, China, Cyprus, Mexico, South Africa and Botswana.²⁸⁰

Other developing countries (ODCs): these are the countries which are neither NICs, RIDCs nor least developed countries. The countries in this category would only be required to implement sustainable development policies and undertake renewable energy and energy efficiency targets (these would be co-funded by countries in Annex II). Countries in the category would include India, Namibia, Indonesia, Ghana, Georgia and Sri Lanka.²⁸¹

Least developed countries (LDCs): these are the countries that are designated as LDCs by the UN. These countries would not have any emissions reduction or limitation commitments. They could implement sustainable development policies and undertake renewable energy and energy efficiency targets (these would be optional and would be co-funded by countries in Annex II). Countries in this group would include Mozambique, Lesotho, Bhutan, Nepal and Myanmar.²⁸²

²⁷⁹ This finance would be used to fund the full costs of meeting the RIDCs mitigation commitments.

²⁸⁰ Ott et al (note 216); Winkler et al (note 216); Baer and Athanasiou (note 231)

²⁸¹ Ibid

²⁸² Ibid

The model stipulates that NICs and RIDCs would only undertake binding and quantifiable commitments to reduce or limit their emissions two conditions or triggers are met. Firstly developed countries would be required to take deep emissions cuts and secondly Annex II countries would provide them with finance and technology.²⁸³ The graduation of developing countries from one category to another would occur when their RCP indicators are reflective of the group immediately higher than their own.²⁸⁴ The categories would be reviewed and modified after each commitment period, which are proposed to be five years.

There are two criticisms that may be levelled against the EIG model although it can be considered a fair and equitable model that complies very strongly with the elements of the CDR principle. Firstly, if the criteria used in the model are not carefully adjusted, some poorer developing countries could be included under the group of NICs or RIDCs.²⁸⁵ Examples include Kazakhstan and Suriname. Secondly, the model is quite complex and involves many graduation events which could prove to be controversial amongst developing countries.²⁸⁶ Developing countries which do not have the institutional capacity to examine the different criteria and their implications would not be able to negotiate themselves into a suitable category.

3.3.4 Greenhouse development rights framework

The Greenhouse Development Rights (GDR) model is a reference framework that proposes an entirely different architecture for the climate regime.²⁸⁷ This would be an evolution of the UNFCCC that would require

²⁸³ Ott et al (note 216); Winkler et al (note 216); Honkonen (note 78)

²⁸⁴ Winkler et al (note 216) at

²⁸⁵ Baer and Athanasiou (note 231) at 11

²⁸⁶ Ibid

²⁸⁷ Baer and Athanasiou (note 231) at 29

drastic restructuring of the treaty. The GDR framework does not include any annexes but favours continuous differentiation as its preferred model.²⁸⁸

The GDR framework is premised on the right to sustainable development from which a global emissions reduction ‘effort-sharing system’ is derived. This right to development is defined as human development that leads to the satisfaction of fundamental needs such that people are freed from vulnerability and deprivation.²⁸⁹ The model is based on the assumption that if a climate regime does not embrace the right to development then it will be doomed to failure.²⁹⁰

As a way of quantifying the right to development, the model proposes a *development threshold*. This threshold is the level at which human beings would achieve a modest yet dignified existence characterised by a decent level of security and well-being.²⁹¹ The development threshold is set at US\$7500 per annum which is deemed to be the level of income where people typically meet most of the Millennium Development Goals (MDGs) such as universal primary school completion and satisfactory maternal and child health.²⁹² Those individuals living below the development threshold should be allowed to focus on meeting the daily demands of life while those above the threshold must contribute to mitigation of, and adaptation to climate change.²⁹³ It is worth pausing here to note that the GDR recognises a *global* class of the poor, and a *global* class of the rich. Therefore while there are

²⁸⁸ Ibid. The framework proposes several new and innovative features such as the consideration of international and intra-national equity and the introduction of a development threshold. Most of the proposals contained in the framework are not in line with the current political realities and authors themselves accept that the framework represents an ideal climate change regime. Baer et al (note 42) at 30

²⁸⁹ This is contrasted with the wasteful consumptive practices of the populations of most industrialised nations. Baer et al (note 42) at 39

²⁹⁰ Ibid

²⁹¹ Baer et al (note 42) at 41

²⁹² Ibid at 42

²⁹³ Ibid at 41

poor countries and rich countries, there will be a wealthy class in the poor countries and a poor class within the rich countries. The right to development and the development threshold apply to the global poor.²⁹⁴

The GDR framework uses the responsibility-capacity index (RCI) to arrive at global emissions reduction allocations. Responsibility is comprised of the historical contribution to global warming excluding those emissions necessary for meeting basic human needs.²⁹⁵ This criterion counts cumulative carbon-dioxide emissions since 1990 and the model makes the assumption that emissions are proportional to consumption which in turn is proportional to income.²⁹⁶ This means that responsibility is higher in wealthy countries while poor countries are largely free of responsibility.²⁹⁷

Capacity is made up of the ability to pay for mitigation and adaptation without sacrificing basic human necessities.²⁹⁸ The model assumes that capacity is strongly correlated to wealth and is defined as the income of the wealthier population that is above the development threshold. Poor countries would therefore have little capacity while rich countries would have greater capacity and hence greater obligations.²⁹⁹

There are three steps to implementing the GDR framework. First, the total global mitigation effort is estimated. This is calculated as the difference between the emissions pathway that would be required to limit global warming to 2°C and the business as usual scenario. Second, this global mitigation effort is divided into 'national mitigation obligations' according to the RCI. Third, each country is assigned a national emissions allocation

²⁹⁴ Ibid at 43

²⁹⁵ Ibid at 49

²⁹⁶ Ibid at 53

²⁹⁷ Ibid at 54

²⁹⁸ Ibid

²⁹⁹ Ibid at 52

which is equal to their business as usual scenario less their national mitigation obligation.³⁰⁰ Depending on each country's mitigation obligation each country may have an allocation that allows growth over time;³⁰¹ an allocation that requires emissions reduction that could be met domestically; or an allocation that requires reductions that are so great that a country could only meet them by mitigating domestically as well as in another country.³⁰²

The GDR framework could also be used as a framework for raising finance for funding mitigation and technology transfer in that each country would be allocated a share of the global mitigation and adaptation bill according to the RCI.³⁰³ These funds would go to a global mitigation and adaptation fund.

The GDR framework is a comprehensive proposal for the restructuring of the climate change regime. Moreover, it rigorously incorporates the elements of the CDR principle. There are however, some weaknesses in the model. Firstly, any model that seeks to include the participation of all developing countries in emissions reduction allocations will not be politically feasible and risks locking vulnerable countries into a framework that they cannot afford to implement. If the criteria used in the model are not carefully balanced, poorer countries which lack negotiating muscle may be disadvantaged by the allocation system. Secondly, the model is quite complex including many different policy variables. Developing countries which do not have the institutional capacity to examine the different criteria and their implications would not be able to negotiate themselves a suitable allocation.

³⁰⁰ Ibid at 68

³⁰¹ Or excess allocations that could be sold to other countries

³⁰² Or by purchasing the unused allocations of other countries

³⁰³ Baer and Athanasiou (note 231) at 56

In conclusion, this chapter has examined whether the CDR principle is flexible enough to allow for the progression in the status of developing countries. It has been shown that the principle does allow for evolution and graduation and that the principle does allow for developing countries that have advanced to a certain stage to take on commitments within the climate change treaty system. The chapter also provided a brief description and analysis of four of the most prominent evolution and graduation models.

The next chapter will propose key elements that any model of evolution and graduation should include in order to meet the need for urgent action while protecting the needs and interests of developing countries.

4 Chapter 4 – Equitable evolution and graduation

Having established that the CDR principle does allow for the evolution of the climate treaty system to include the participation of developing countries in emissions reduction commitments, it is important to outline how this could be done in line with the key elements of the CDR principle.

This chapter proposes the key elements for an appropriate model for evolution and graduation. It begins with a discussion of the principles that should be incorporated by any evolution and graduation model and then goes on to discuss the conditions under which evolution and graduation should take place. Next the chapter discusses the architecture that is proposed for an appropriate evolution and graduation model before going on to discuss tools and mechanisms for operationalising evolution and graduation. The chapter ends with a brief discussion of the preferred model for evolution and graduation. Infused into the discussion on the key elements for evolution and graduation is an analysis of the outcomes of the Copenhagen Climate Change Conference and how these would impact or be impacted on by these key elements.

4.1 Principles

As discussed in Chapter 1, the negotiations at the Copenhagen Climate Change Conference have reached a standstill. Issues that remain contentious are finance, technology, mitigation and the future of the Kyoto Protocol. On the issue of mitigation, differences remained on the nature of mitigation by developed countries, a collective goal for mitigation (as opposed to individual targets), and comparability of efforts (between Kyoto Annex B Parties, the US and advanced economies).³⁰⁴ Developed countries suggested limiting discussions to those mitigation actions that were common to both developed and developing countries (thus including developing countries in mitigation commitments). Developing countries on the other hand were resolute in arguing for economy-wide, quantified

³⁰⁴ IISD (note 2) at 16

emissions reduction commitments that are legally binding and in line with the requirements of science.³⁰⁵ Two issues that were especially controversial were the Nationally Appropriate Mitigation Actions (NAMAs),³⁰⁶ and the so called Measurable, Reportable and Verifiable (MRV)³⁰⁷ issue. Developed countries are therefore pushing for the evolution of the UNFCCC and Kyoto Protocol.

Any discussion on evolution and graduation should be firmly rooted in the CDR principle. It should therefore clearly reflect the objectives of the principle. As discussed in Chapter 2 above, the main objectives of the CDR principle are to achieve substantive equity, to assign greater responsibility to those States that have contributed more to a particular environmental problem; to assign greater responsibility to those States that have greater capacity to solve environmental problems; and to achieve better and more effective participation in international environmental regimes.

³⁰⁵ Ibid

³⁰⁶ The controversy revolves around whether developing countries' voluntary actions should be open for international scrutiny (developed country position) or whether only those supported by international action should be opened up (developing country position). The Copenhagen Accord, has tried to address this in a clumsy wording that states that 'Mitigation actions '*... taken by Non-Annex I Parties will be subject to their domestic measurement, reporting and verification the result of which will be reported through their national communications every two years. Non-Annex I Parties will communicate information on the implementation of their actions through National Communications, with provisions for international consultations and analysis under clearly defined guidelines that will ensure that national sovereignty is respected. Nationally appropriate mitigation actions seeking international support will be recorded in a registry along with relevant technology, finance and capacity building support. Those actions supported will be added to the list in appendix II. These supported nationally appropriate mitigation actions will be subject to international measurement, reporting and verification in accordance with guidelines adopted by the Conference of the Parties....'* UNFCCC Secretariat 'Copenhagen Accord'. Available at <http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf> [Accessed: 11 January 2010]

³⁰⁷ This has been one of the most contentious issues since the 13TH COP in Bali. There is no clarification as to whether MRV relates to mitigation action by developing countries (as argued for by developed countries) or whether it relates to finance and technology transfer by developed countries (as advocated by developing countries). A weak compromise was reached by the Copenhagen Accord which states '*... Delivery of reductions and financing by developed countries will be measured, reported and verified in accordance with existing and any further guidelines adopted by the Conference of the Parties, and will ensure that accounting of such targets and finance is rigorous, robust and transparent...*'

Therefore, an appropriate evolution and graduation model should be based on the achievement of substantive equity, rather than perpetuating the fiction of the sovereign equality of States.³⁰⁸ It should explicitly take into consideration the different ability of States to implement their commitments and the need for development amongst developing countries.³⁰⁹

Furthermore, the most appropriate model for evolution and graduation should assign greater responsibility to those States that have contributed to global warming and climate change. As stressed in Chapter 2, most industrialised nations owe a debt to the world for decades and in some cases centuries, of GHG emissions and this historical responsibility cannot easily be written off. As most of the models discussed in Chapter 3 clearly acknowledged, developing countries did not create the current problem of climate change³¹⁰ and so they should be assigned reduced responsibilities for solving the problem.

In addition a fair and equitable evolution and graduation model should assign greater responsibility to those States that have greater capacity to effect remedial action. While it is not always the case, this greater capacity lies with developed countries who owe the strength of their economies to the gains they received through cumulative GHG emissions over the years. Amongst developing countries there are also those countries that have a higher capacity to mitigate climate change due to their advanced levels of development.

Finally, an appropriate model for evolution and graduation must be framed in such a way that it leads to the achievement of better and more effective participation in the climate regime. As stated previously in this study, climate change mitigation may, if not framed properly, interfere with

³⁰⁸ Cullet (note 43) at 113

³⁰⁹ Baer et al (note 42)

³¹⁰ Although at the rate of emissions growth in developing countries, they will contribute to *future* and increased global warming and climate change

the ability of developing countries to deliver much needed development to their societies. The model should therefore offer inducement to reluctant developing countries to take on more stringent emissions reduction commitments and alleviate the potential burden on developing countries to take on mitigation commitments.

Placing evolution and graduation within the limits of the CDR principle as discussed above is important because despite the urgency required in responding to climate change, differential treatment is still valid. For example, it is almost unconscionable that developed countries such as the US and the EU seek to equate their own action with corresponding action by countries like India and China.³¹¹ It is patently unfair that after failing to implement and meet their (very modest) Kyoto Protocol commitments, developed countries want to turn around and include developing countries on the premise that their contributions are too significant to ignore.

This is not to say that newly and rapidly industrialising countries should not take on any emissions reduction commitments. Indeed the objectives of the CDR principle enumerated above would require that most of the larger developing countries should take on mitigation commitments. This is because for the past few decades they have been responsible for more than their fair share of global GHG emissions. Moreover, those developing countries that have reached a certain level of development can afford to reduce their levels of GHG emissions in order to achieve global sustainability.

Therefore, having satisfied ourselves on the principles that should underscore any discussion or model on evolution and graduation what then are the conditions under which evolution and graduation should be implemented?

³¹¹ President George W. Bush of the US cited the lack of commitments for India and China as one of the reasons he refused to ratify the Kyoto Protocol. See Stone (note 47). More recently the EU and other developed countries at the UNFCCC COP 15 were pushing hard for a 'comparability of efforts' for developed and developing countries. See generally the Earth Negotiations Bulletin Summary of COP 15 (note 2)

4.2 Conditions

As discussed in Section 4.1 above and Section 4.2 below, the Copenhagen Climate Change Conference has seen developed countries pushing for the total overhaul of the climate regime with strong inclinations towards replacing the Kyoto Protocol with one single protocol that includes actions for all developed countries (including the US) and major developing countries. The author, however, argues that they should be retained and adapted to allow for evolution and graduation as argued for in Chapter 3 above. Developed countries are very vocal in their demands for developed countries (with perhaps the exclusion of LDCs) to take on mitigation commitments.³¹² At the same time, developed countries are hesitant to commit themselves to deep emissions cuts and even more so to providing finance and technology to developing countries.³¹³ With regards to finance, controversy remains on the administration and governance of new finance measures, the origin of funds and their disbursement.³¹⁴

There are certain conditions that must be met before developing countries can take part in any emissions reduction commitments. Winkler et al, call these ‘triggers’ that lead to developing countries taking on quantified emissions reduction commitments.³¹⁵ These triggers include actions for both developed and developing countries.

Before developing countries can begin participating in an emissions reduction commitment regime, developed countries must take, and continue taking the lead. Article 3 of the UNFCCC clearly states that in line with their common but differentiated responsibilities, developed country Parties should

³¹² IISD (note 2)

³¹³ Ibid

³¹⁴ Ibid at 18

³¹⁵ Winkler et al (note 216) at 479

‘take the lead in combating climate change’ and its adverse impacts. This exhortation is still valid for three reasons:³¹⁶

- Developed countries still bear the historical responsibility for climate change. They are responsible current global warming and climate change
- Developed countries have more ‘luxury’ emissions and any action they take to mitigate climate change is not likely to impact on meeting the basic human needs of their populations
- Developed countries have more financial and technological capacity to remedy the causes and effects of climate change.

To this end, developed countries should act first in combating climate change. They should, as a gesture of global goodwill implement and attempt to meet, as far as possible, their Kyoto targets. In addition, developed countries should take on deep emissions reduction targets for the post-2012 period. In doing this, they would be signalling to developing countries, (particularly the ones that they are trying to persuade to take on emissions reduction commitments) that they are serious about their climate change commitments and that they intend to deal honourably with developing countries.

In addition to taking the lead, developed countries should provide finance and technological assistance to developing countries to meet their emissions reduction commitments.³¹⁷ These financial and technological transfers are important for two reasons.

³¹⁶ Winkler et al (note 216) at 471

³¹⁷ Which developing countries would be financed and to what extent should be negotiated within the context of the UNFCCC, but it is important to note that the UNFCCC Secretariat estimates that an additional US\$200 – 210 billion will be needed for climate change mitigation in 2030 (compared to US\$ that has been pledged and received by the Financial Mechanism of the Convention to date). See UNFCCC Secretariat ‘Investment and financial flows to address climate change’ Available at http://unfccc.int/files/cooperation_and_support/financial_mechanism/application/pdf/background_paper.pdf [Accessed 15 January 2010]

Firstly, the finance and technology transfers would be globally beneficial because infrastructural and policy decisions that lock in high emissions would be avoided.³¹⁸ For example decisions and investments in industrial facilities,³¹⁹ transport, energy provision, homes and offices could commit developing countries to infrastructure that will emit high levels of GHG for a long time into the future. Conversely, if these developing countries are provided with sufficient investments and financial flows these investments could go towards environmental friendly instalments.³²⁰

Secondly, given that mitigation is likely to be cheaper in developing countries, the finance and technology flows to developing countries would assist developed countries meet their own mitigation targets more affordably than in their own countries.

While advocating for the participation of newly and rapidly industrialising developing countries in emissions reduction regimes, it should be stressed that this participation should be entirely voluntary. Developing countries should not be coerced into taking on emissions reduction commitments and moreover, graduation should not be automatic.³²¹ As Winkler and Voster note, developing countries are not likely to surrender their sovereignty to external factors, particularly in such a controversial area as climate change. Evolution and graduation should be based on the self-election of developing countries.³²²

In order to encourage developing countries to take on binding emissions reduction commitments, strong incentives and disincentives

³¹⁸ Winkler et al (note 216) at 471

³¹⁹ A perfect South Africa example is the Coega Industrial Development Zone which could commit South Africa to several decades of high GHG emissions with developments such as aluminium smelters.

³²⁰ Winkler et al (note 216) at 471

³²¹ Rajamani (note 31) at 51; Harald Winkler and Shaun Vorster 'Building bridges to 2020 and beyond: the road from Bali' (2007) 7 *Climate Policy* 240 at 246

³²² Rajamani (note 31) at 51

should be put in place. For example, a strong financial mechanism such as in the Montreal Protocol (as described in section 2.8.1 above) could be implemented. Also, side-payments or preferential treatment in other fora such as the WTO could be used to persuade developing countries to accept mitigation commitments. Disincentives such as economic sanctions could ensure that these countries abide by their voluntary commitments.

It is important to stress that any evolution and graduation model should protect the interests of developing countries. This is true also for whichever architecture is chosen for evolution and graduation models.

4.3 Architecture, tools and mechanisms

One of the most controversial the issues at the Copenhagen Climate Change Conference was the future of the Kyoto Protocol, most developed countries argued for the development of a new Protocol that would include mitigation commitments for all countries including the USA and developing countries. For example Australia emphasized its preference for a ‘unified Protocol’ and the EU and Japan stated that although they would commit to safeguarding the key elements of the Kyoto Protocol, it was important to broaden its scope in an expanded and more durable vehicle than the Kyoto Protocol.³²³ The developed countries are therefore advocating for the evolution of the climate regime through a comprehensive review of the architecture of the regime. Developing countries are understandably wary of this. Most developing countries supported the development of a new Protocol for the US and advanced developing countries and amendments for the Kyoto Protocol. They fear a situation where developed countries will abandon the Kyoto Protocol and their commitments along with it while requiring comparable efforts by developing countries.³²⁴

³²³ IISD (note 2) at 12; This stance was supported by many developing countries including New Zealand and Canada

³²⁴ Ibid

In designing the most appropriate climate regime that includes developing country mitigation commitments, preference should be given to gradual or incremental evolution over comprehensive or drastic structural changes. In particular, models that require the participation of all developing countries from the outset cannot be considered equitable and would be contrary to the CDR principle. They would not, for example, take into consideration the historical responsibility of developed countries and would likely place the needs of developing countries in jeopardy. To this end, the EIG model discussed in Chapter 3 remains the most favoured. In fact, the writer concurs with Axel Michaelowa who states that the architecture of the Kyoto Protocol is still valid.³²⁵

An appropriate evolution and graduation model would allow for a mix of different types of commitments. Quantified emissions reduction and limitation obligations (QUELROs) would be most appropriate for developed countries, while developing countries should be allowed to choose between QUELROs and NAMAs as suits their needs.³²⁶

Finally, the evolution and graduation model should use a mixture of binding and non-binding commitments for developing countries.

4.4 Favoured Model

Of the models discussed in Chapter 3, the Equity in the Greenhouse (EIG) is the closest to fulfilling the principles, conditions and architecture advocated by this study. The writer agrees with the authors of that study that the division between Annex I and non-Annex I Parties is still useful only if it serves as the first level of differentiation. The six categories proposed there, namely Annex II, EIT, NIC, RIDC, ODC and LDC are considered appropriate for this study. Specifically it is proposed that:

³²⁵ Axel Michaelowa 'Graduation and Deepening: An ambitious post-2012 climate policy scenario' (2005) 5 *International Environmental Agreements* 25 at 26

³²⁶ NAMAs

Annex II should take on binding mitigation commitments and should provide funds and technology to countries in the different developing country categories to undertake their own emissions reductions and limitations.

EITs should undertake quantified emissions reduction commitments, but have low or no obligations to provide funding to developing countries.

NICs should take on quantified absolute emissions reduction commitments, condition on finance and technology from Annex II countries, failing which, they should only undertake qualitative emissions limitations.

RIDCs should take on absolute emissions limitation commitments, provided they receive finance and technology from Annex II countries. If it is not forthcoming, they should only be committed to qualitative limitations targets.

ODCs should only be required to implement sustainable development policies and programmes that would move them onto more sustainable pathways.

LDCs should not have any emissions reduction or limitation commitments.

All classes of developing countries should only take on emissions reduction commitments if developed countries take on deep emissions reduction commitments. In order to ensure that the model is implemented in a fair and equitable manner, the criteria used should be carefully balanced and more weight placed on the social indicators such as the HDI. Furthermore, as stated in Section 4.2 above, the graduation of developing countries from one stage to another should be voluntary and based on financial and other incentives.

The two new categories of NIC and RIDC could be included in the UNFCCC as new annexes.

5 Chapter 5 – Conclusion and recommendations

5.1 Summary

The climate change negotiations have reached crisis point and there does not seem to be a way out. Many of the country positions remained entrenched throughout the whole two-year process with high levels of mistrust between developed and developing countries. Much of the controversy between developed and developing countries can be traced to one of the founding principles of the UNFCCC namely the principle of common but differentiated responsibilities (CDR). This principle is implemented in several ways throughout the Convention. For example, while the Convention encourages developed countries to stabilise GHG emissions and, the Kyoto Protocol commits them to binding emissions reduction targets, there are no such commitments for developing countries.

The stalemate in the negotiations relates to emissions reduction commitments for the period after 2012 when the current commitments under the Kyoto Protocol will expire. Developed countries, with the bulk of the responsibility for climate change, are demanding that large developing countries should take on emissions reduction commitments. The basis of their argument is that the developing country emissions continue to grow and will soon outpace those of developed countries. Developing countries on the other hand argue that emissions reduction commitments would jeopardise their developmental programmes and that developed countries have the historical responsibility for climate change and so should act unilaterally to combat it. Negotiations under the AWG-KP made little progress during 2009.

There is a deep divide between developed and developing countries with both sides using the CDR principle to justify their positions. Developed countries claim that the principle requires that all countries take on emissions reduction commitments although these may differ according to national circumstances. They also claim that the principle does not require

them to transfer finance or technology to developing countries. Developing countries, on the other hand, claim that the principle absolves them totally from any emissions reduction commitments.

The purpose of this study was to examine the CDR principle and ascertain whether it absolves developing countries from taking on emissions reduction commitments. It also aimed to determine whether evolution and graduation are constituents of the CDR principle and if so, how they could be implemented in a manner that is both fair and equitable. Finally the study aimed to propose key elements of an evolution and graduation model that could be deemed fair and equitable.

The study began by tracing the history of the CDR principle. It showed that the differential treatment, which provides the foundation for the principle, can be traced from three separate but related developments in international law. These are differentiation in treaty law, differentiation in trade and economic development and differential treatment in environmental law subsequent to the Stockholm Conference in 1972.

The study analysed the rationale for the existence of the CDR principle. It showed that based on the literature there are four objectives for the principle. These are to achieve of substantive equality; to assign greater responsibility to those countries with higher responsibility for the creation of a problem; to assign responsibility for those countries with greater capacity to solve an environmental problem; and to achieve better and more effective participation in an environmental treaty.

The legal status of the CDR principle was examined and the study showed that although scholars are agreed that the principle is not binding, this may not be significant as it has achieved the status of an influential soft law principle. The study went on to examine the scope and content of the principle and showed that it is made up of three elements. The first is the element of common responsibility and the common heritage of mankind. The

second is the element of differentiated responsibility and the last is the element of leadership by developed countries.

The study also investigated the different forms of differentiation. It showed that there are three main forms of differentiation. These are unconditional treatment where the treaty or agreement does not provide for or allow for differential treatment but may unwittingly permit this through the use of reservations or interpretive statements. The second is contextual differentiation where a treaty or agreement does not on the face of it provide for differential treatment but allows or encourages differentiation in implementation. The third is concrete differentiation where the treaty or agreement explicitly makes provision for different terms and implementation.

It was shown that that differentiation can be implemented using different tools and methods including grace periods, consideration of the special needs of developing countries and the use of different categories. The study briefly scrutinised the weaknesses of the CDR principle and found that in addition to its unclear legal status and the disputes over its scope and content, other weaknesses include lack of clarity over whether the principle is designed to evolve over time with the changes in the circumstances of Parties. It was shown that these flaws are not fatal and that there is still room for the principle in international environmental law.

The study went on to describe how the CDR principle has been implemented in two different treaties. The Montreal Protocol was adopted prior to the enunciation of the principle at Rio in 1992 and yet it is a very good example of the implementation of differential treatment. It implements differentiation mainly through the use of contextual differentiation for example it allows for financial and technological assistance for developing countries and gives them delayed implementation schedules. The UNFCCC and the Kyoto Protocol on the other hand implement the CDR principle mainly through the explicit mention of the principle, through contextual differentiation and through concrete differentiation.

A central question of the study was whether the principle was intended to evolve and whether it was flexible enough to allow advanced developing countries to take on mitigation commitments. The study showed that there is nothing in the phrasing of Principle 7 or Article 3 of the UNFCCC, which are alternative wordings of the CDR principle, that suggest either implicitly or explicitly that the principle is inflexible or that it exempts developing countries from taking on mitigation commitments.

The study therefore suggests that there is room in the UNFCCC and the Kyoto Protocol for mechanisms that would enable evolution of the treaties and graduation of some advanced developing countries. The study went on to discuss four of the most prominent models that have been proposed for the evolution of the UNFCCC and the Kyoto Protocol. These models are the contraction and convergence model, the multi-stage approach, the equity in the greenhouse model, and the greenhouse development rights framework.

Having shown that the CDR principle allows for evolution and graduation, the study went on to discuss the key elements that any model on evolution and graduation that claims to be fair and equitable should possess. The first key element is a group of principles that should form the basis of any such model. These principles are based on the rationale for the CDR principle and are: the achievement of substantive equity, the assignment of greater responsibility for contribution to climate change, assignment of greater responsibility for higher capacity to solve the climate change problem and the achievement of better and more effective participation in the climate regime.

The study then discussed the conditions under which evolution and graduation must occur if they are to be deemed fair and equitable. The study argues that developed countries must act first, work towards meeting their Kyoto targets, take on deep emissions cuts in the next commitment period and provide funds to developing countries to assist them to meet their own commitments. The study also argues that graduation must be

voluntary. The study favours the gradual evolution of the climate regime over drastic or comprehensive changes.

The study then discussed the favoured model for evolution and graduation. This was found to be the equity in the greenhouse model which was preferred because it takes into account all of the CDR principles. If the weaknesses of the model are managed, it could provide an equitable framework for evolution and graduation in the UNFCCC and the Kyoto Protocol.

5.2 Conclusion

The objectives of the study were: to analyse the CDR and develop an understanding of its operation; to determine whether the use of the principle in the climate regime releases developing countries from taking on mitigation commitments; to analyse whether the CDR principle encompasses the notions of evolution and graduation; and to investigate what forms of evolution and graduation would be fair and equitable.

These objectives have been met. Chapter 2 dealt extensively with the CDR principle while Chapter 3 showed that the CDR principle is flexible and will allow developing countries to take on mitigation commitments and that it encompasses the notions of evolution and graduation. Finally Chapter 4 outlined the key elements on which evolution and graduation should be based.

Furthermore the study has contributed to a better understanding of the CDR principle and its operation; a better understanding of the concepts of evolution and graduation; a better understanding of the relationship between CDR and the concepts of evolution and graduation; and the development of key elements that any models of evolution and graduation should take into consideration.

5.3 Recommendations

The earth's climate system is close to reaching a point where catastrophic change is inevitable. At this crucial time, climate negotiations are moving at a snail's pace with both developed and developing countries digging their heels in regarding their emissions reduction commitments for the future; commitments that could either restore the climate system or allows runaway climate change. The main obstacle to the former situation seems to be one of the foundational principles of the climate change treaty system: the CDR principle. One way of bridging this chasm is to implement the concepts of evolution of the climate treaty system and graduation of advanced developing countries.

The study therefore recommends that:

1. It is time to move on from the simple developed/ developing country divide in multilateral environmental agreements, particularly in the climate change regime
2. The UNFCCC and the Kyoto Protocol should be retained but should include mechanisms that would enable evolution and graduation
3. The EIG model is the most suitable in terms of the CDR principle

Further areas of research could be on:

1. The interface of the CDR principle with the Copenhagen Accord and other outcomes of the current negotiation process,
2. A deeper understanding of evolution and graduation within the climate change treaty system – particularly in view of the fact that the future of the Kyoto Protocol is not certain. The successor of the Protocol should be placed firmly within the limits of the CDR principle.

6 Bibliography

Treaties

Convention Concerning the Protection of the World Cultural and Natural Heritage 1972 (1972) 11 *ILM* 1358.

Convention on Long Range Trans-boundary Air Pollution 1979 (1979) 18 *ILM* 1442

General Agreement on Tariffs and Trade: Text of the general agreement. Geneva, July 1986. Available at http://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf [Accessed 1 December 2009].

Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1998 (1998) 37 *ILM* 22 (Kyoto Protocol)

Montreal Protocol on Substances that Deplete the Ozone Layer 1987 (1987) 26 *ILM* 1550

United Nations Framework Convention on Climate Change, 1992 (1995) 34 *ILM* 1671 (UNFCCC) Article 2

Vienna Convention on the Protection of the Ozone Layer 1985 (1985) 26 *ILM* 1529

Books

Atapattu, S *Emerging Principles of International Environmental Law* (2006) 379

Baer P, et al *The greenhouse development rights framework : The right to development in a climate constrained world* 2ed (2008)

Birnie, P et al *International law and the environment* 3ed. (2009) 132

Glazewski, J *Environmental Law in South Africa* 2ed (2005) 34; Michael Kidd *Environmental Law* (2008) 49

Honkonen, T *The common but differentiated responsibility principle in multilateral environmental agreements: Regulatory and Policy Aspects* 2010

IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change at 3

Kiss, A and Shelton, D *International environmental law* 3ed (2004) 19

Kurukulasuriya, L and Robinson, N *Training Manual on International Environmental Law* (2003) 32

Rajamani, L *Differential treatment in international environmental law* (2006)

Rajamani, L 'Differentiation in the post-2012 climate regime' (2008) 44 *Policy Quarterly* 48 at 49

Rajamani, R 'Addressing the post-Kyoto stress disorder: Reflections of the emerging legal architecture of the climate regime' Available at <http://www.cprindia.org/moreworkingpapers.php?s=150> [Accessed 11 January 2010]

Sands, P *Principles of international environmental law* 2ed. (2003) 285

Journal Articles

Aldy, Joseph and Stavins, Robert 'Climate policy architecture for the post-Kyoto world' (2008) 50 (3) *Environment*

Berk, M et al 'Options for differentiation of future commitments in climate policy: how to realize timely participation to meet stringent climate goals?' (2001) 11 *Climate Policy* 465 at 466

Biniaz, S 'Common but differentiated responsibility' (2002) 96 American Society for International Law Proceedings 359

Brown Weiss, E 'Common but differentiated responsibilities in perspective.' (2002) 96 American Society for International Law Proceedings 366

Cordonier Segger, MC 'Prospects for principles of international sustainable development law after the WSSD: Common but differentiated responsibilities, precaution and participation' (2003) 12 1 RECIEL 54

Cullet, P 'Differential Treatment in International Law' (1999) 10 3 EJIL 549

Cullet, Phillippe 'Equity and flexibility mechanisms in the climate change regime: conceptual and practical issues' (1999) 8 (2) RECIEL

Cullet, P 'The global warming regime after 2012: towards a new focus' 2008 43 (28) Economic and Political Weekly

French, D 'Developing states and international environmental law: The importance of differentiated responsibilities' (2008) 49 1 *International and Comparative Law Quarterly* at 40

Gallagher, A 'The 'new' Montreal Protocol and the future of international law for protection of the global environment' 1992 14 Houston Journal of International Law 267

Halvorssen, A. M. *Common, but Differentiated Commitments in the Future Climate Change Regime-Amending the Kyoto Protocol to Include Annex C and the Annex C Mitigation Fund*, 18 Colo.J.Int'l Env'tl.L.& Pol'y 247 (2007).

Magraw, DM 'Legal treatment of developing countries: differential, contextual and absolute norms.' (1990) 69 1 *Colorado Journal of International Environmental Law and Policy* 69 at 89;

Melkas, E. *Sovereignty and Equity within the Framework of the Climate Regime*, 11 *Review of European Community and International Environmental Law* 115 (2002).

Michaelowa, Axel et al 'Graduation and deepening: an ambitious post-2012 climate policy scenario' 2005 5 *International Environmental Agreements*

Najam, Adil et al 'Climate negotiations beyond Kyoto: developing country concerns and interests' (2003) 3 *Climate Policy*

Rajamani, L 'The principle of common but differentiated responsibility and the balance of commitments under the climate regime' (2000) 9 (2) *RECIEL* 120

Stone, C 'Common but differentiated responsibilities in international law' (2004) 98 2 *American Journal of International Law* 276 at 278

Winkler, H et al 'Future mitigation commitments: differentiating among non-Annex 1 countries' (2006) 5 5 *Climate Policy* 469 at 470

Winkler, H and Vorster, S 'Building bridges to 2020 and beyond: the road from Bali' (2007) 7 *Climate Policy* 240 at 246

Yamin, F 'The Kyoto Protocol: Origins, Assessment and Future Challenges.' (1998) 7 2 *RECIEL* 113

Internet Articles

Declaration of the United Nations Conference on Environment and Development

Baer, P and Athanasiou, T 'Frameworks and proposals: A brief, adequacy and equity-based evaluation of some prominent climate policy frameworks and proposals' at 7. Available at

<http://www.boell.de/ecology/climate/climate-energy-1967.html>

[Accessed 15 January 2010]

Den Elzen, MGJ 'Exploring post-Kyoto climate regimes for differentiation of commitments to stabilize greenhouse gas concentrations' at 2.

Available at <http://rivm.nl/bibliotheek/rapporten/728001020.pdf>

[Accessed 15 January 2010]

Drexhage, J and Murphy, D 'Copenhagen: A memorable time for all the wrong reasons?' Available at

<http://www.iisd.org/publications/pub.aspx?pno=1218> [Accessed 11

January 2010].

Global Commons Institute 'Contraction and convergence. A global solution to a global problem.' Available at

<http://www.gci.org.uk/contconv/cc.html> [Accessed on 15 January 2010]

Guerin, E and Wemaere, M 'The Copenhagen Accord: What happened: Is it a good deal? Who wins and who loses? What is next?' Available at

[http://www.iddri.org/Publications/Collections/Idees-pour-le-](http://www.iddri.org/Publications/Collections/Idees-pour-le-debat/Id_082009_guerin_wemaere_accord_copenhague.pdf)

[debat/Id_082009_guerin_wemaere_accord_copenhague.pdf](http://www.iddri.org/Publications/Collections/Idees-pour-le-debat/Id_082009_guerin_wemaere_accord_copenhague.pdf) [Accessed 11

January 2010]

Gupta, J and Churie Kallhauge, A 'Coalition building' (2002) 44/ 45

Tiempo Available at

[http://www.tiempocyberclimate.org/portal/archive/issue4445/t4445a6.](http://www.tiempocyberclimate.org/portal/archive/issue4445/t4445a6.htm)

[htm](http://www.tiempocyberclimate.org/portal/archive/issue4445/t4445a6.htm) [Accessed: 5 August 2009]

Hoehne, N 'Evolution of commitments under the UNFCCC: Involving newly industrialised economies and developing countries' Available at

<http://www.umweltbundesamt.de/uba-info-medien->

[e/mysql_medien.php?anfrage=Kennummer&Suchwort=2235](http://www.umweltbundesamt.de/uba-info-medien-e/mysql_medien.php?anfrage=Kennummer&Suchwort=2235) [Accessed:

15 June 2009]

Hoehne, N and Lahme, E 'Types of future commitments under the UNFCCC and the Kyoto Protocol post 2012' at 5. Available at

<http://assets.panda.org/downloads/ecofyspost2012targets20sept05.pdf>

[Accessed 15 January 2010]

Ibiblio 'Conference on the Limitation of Armament. Washington, November 21, 1921 to February, 6 1922.' Available at http://www.ibiblio.org/pha/pre-war/1922/nav_lim.html [Accessed 1December 2009].

International Energy Agency 'Carbon dioxide emissions from fuel combustion – highlights. 2009 edition' Available at <http://www.iea.org/co2highlights/CO2highlights.pdf> [Accessed 15 January 2010];

International Institute for Sustainable Development (IISD) 'Summary of the twentieth Meeting of the Parties to the Montreal Protocol and eighth meeting of the Conference of Parties to the Vienna Convention' Available at <http://www.iisd.ca/ozone/mop20> [Accessed 11 January 2010]

IISD 'Earth Negotiations Bulletin: Summary of the Copenhagen Climate Change Conference: 7-19 December.' Available at <http://www.iisd.ca/download/pdf/enb12459e.pdf> [Accessed 11 January 2010]

IISD 'A brief analysis of the Copenhagen Climate Change Conference.' Available at http://www.iisd.org/pdf/2009/enb_copenhagen_commentary.pdf [Accessed 11 January 2010]

International Labour Organization (ILO), *Constitution of the International Labour Organisation (ILO)*, 1 April 1919. Available at <http://www.firstworldwar.com/source/versailles400-427.htm> [Accessed 1 December 2009]

Keck, A and Low, P 'Special and differential treatment in the WTO: Why, when and How?' Available at: http://www.wto.org/english/res_e/reser_e/ersd200403_e.doc [Accessed 11 January 2010]

Ott, H et al 'South-North Dialogue on Equity in the Greenhouse' at 2.
Available at <http://www.erc.uct.ac.za/Research/publications/04Ott-et-al-SouthNorthDiaLogue.pdf> [Accessed 15 January 2010]

Secretariat of the Montreal Protocol 'Evolution of the Montreal Protocol'
Available at
http://ozone.unep.org/Ratification_status/evolution_of_mp.shtml
[Accessed 12 January 2010]

Statute of the International Court of Justice, Article 38. Available at:
http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER_II [accessed
11 January 2010]

South-North Development Monitor SUNS, No. 6378, 3 December 2007

Torvanger, A et al 'Broadening the climate regime' at 1. Available at
<http://www.cicero.uio.no/media/3604.pdf> [Accessed 15 January 2010]

UNDP 'Human Development Report 2009.' Available at
<http://hdr.undp.org/en/>

UNFCCC Secretariat 'Copenhagen Accord'. Available at
<http://unfccc.int/resource/docs/2009/cop15/eng/107.pdf> [Accessed: 11
January 2010]

UNFCCC Secretariat 'Investment and financial flows to address climate
change' Available at
[http://unfccc.int/files/cooperation_and_support/financial_mechanism/
application/pdf/background_paper.pdf](http://unfccc.int/files/cooperation_and_support/financial_mechanism/application/pdf/background_paper.pdf) [Accessed 15 January 2010]

UNFCCC 'Status of ratification' available at
[http://unfccc.int/essential_background/convention/status_of_ratificatio
n/items/2631.php](http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php) [Accessed 5 June 2009]

Winkler, H and Vorster, S 'Building bridges to 2020 and beyond: the road
from Bali' (2007) 7 Climate Policy 240 at 246 Available at:

<http://www.eri.uct.ac.za/Research/publications/07Winkler-Vorster.pdf>

[Accessed 7 September 2009]