



**THE CONTRIBUTION OF DEVELOPING COUNTRIES IN THE GLOBAL
EFFORT TO TACKLE CLIMATE CHANGE: ANALYSIS OF THE
TRANSITION FROM THE KYOTO PROTOCOL TO THE PARIS
AGREEMENT**

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DECLARATION

I hereby certify that the contents of this thesis are based on my own original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been previously, is being, or is to be submitted towards another degree in this or any other university.



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As the candidate's supervisor, I, Michael A. Kidd, agree to the submission of this dissertation.

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Date.....

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* Quote available at:

<https://www.brainyquote.com/quotes/quotes/i/isaacnewto135885.html>

DEDICATION

This dissertation is dedicated to all those who will have the time, interest and opportunity to read it. Thank you! The reason being that by so doing, you are encouraging us to continue in similar undertakings, with the conviction that the work once produced, will be helpful to someone, somewhere.

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LIST OF ACRONYMS

AAU	:	Assigned Allocation Units
ADP	:	Ad Hoc Working Group on the Durban Platform for Enhanced Action
AILAC	:	Association of Independent Latin American and Caribbean states
ALBA	:	Bolivarian Alliance for the Peoples of Our America
ANC	:	African National Congress
AOSIS	:	Alliance of Small Island States
AJIL	:	American Journal of International Law
AR4 IPCC	:	Fourth Assessment Report
AR5 IPCC	:	Fifth Assessment Report
AWG-KP	:	Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol.
AWG-LCA	:	Ad Hoc Working Group on Long Term Cooperative Action
BASIC	:	Brazil, South Africa, India and China
CAT	:	Climate Action Tracker
CBD	:	Convention on Biological Diversity
CBDR	:	Common But Differentiated Responsibilities
CBDR-RC	:	Common But Differentiated Responsibilities and Respective Capabilities
CDM	:	Clean Development Mechanism
CERs	:	Certified Emission Reductions
CFCs	:	Chlorofluorocarbon
CfRN	:	The Coalition for Rainforest Nations
CH ₄	:	Methane
CMP	:	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
°C	:	Degree (s) Celsius
CO ₂	:	Carbon Dioxide
CO ₂ -Eq	:	Carbon Dioxide Equivalent Emission
CO	:	Carbon Monoxide
COP	:	Conference of the Parties
ERUs	:	Emission Reduction Units

ET	:	Emissions Trading
ETS	:	(International) Emissions Trading System
E.U.	:	European Union
FAR	:	First Assessment Report of the IPCC
G77 + China	:	Climate Change Negotiation Group of 77 Developing Countries + China
GATT	:	General Agreement on Tariffs and Trade
GCF	:	Green Climate Fund
GDP	:	Gross Domestic Product
GEF	:	Global Environment Facility
GHG	:	Greenhouse Gas
GNI/n	:	Gross National Income per Capita
Gt.	:	Giga tonne
H ₂ O	:	Water
HDI	:	Human Development Index
HDR	:	Human Development Report
HFCs	:	Hydro Fluorocarbons
ICA	:	International Consultation and Analysis
ICLQ	:	International and Comparative Law Quarterly
IDA	:	International Development Association
IFS	:	International Financial Statistics
IMF	:	The International Monetary Fund classification
INC	:	Intergovernmental Negotiating Committee
INC/UNFCCC:	:	Intergovernmental Negotiating Committee of the UNFCCC
INDC	:	Intended National Determined Contribution
ILO	:	International Labour Organisation
IPCC	:	Intergovernmental Panel on Climate Change
IPCC-WGI	:	Intergovernmental Panel on Climate Change – Working Group I
JI	:	Joint Implementation (mechanisms)
LDCs	:	Least Developed Countries
LMDC	:	The Like Minded Developing Countries on Climate Change
MFN	:	Most-Favoured-Nation
MRV	:	Measuring, Reporting and Verification
N ₂	:	Nitrogen
NAMA	:	Nationally Appropriate Mitigation Action
NDC	:	Nationally Determined Contributions
NGO	:	Non-Governmental Organisations
N ₂ O	:	Nitrous Oxide
O ₂	:	Oxygen

OECD	:	Organisation for Economic Co-operation and Development
OPEC	:	Organisation of Petroleum Exporting Countries
PFCs	:	Per Fluorocarbons
QELRCs	:	Quantified Emission Limitation and Reduction Commitments
RECIEL	:	Review of European Community and International Environmental Law
REDD+	:	Reduction of Emissions from Deforestation and Degradation in Developing countries, including conservation.
SAR IPCC	:	Second Assessment Report of the IPCC
SB / SBI	:	Subsidiary Body / Subsidiary Body for Implementation
SBSTA	:	Subsidiary Body for Scientific and Technological Advice
SD-PAMs	:	Sustainable Development Policies and Measures
SIDS	:	Small Island Developing States
SO ₂	:	Sulphur Dioxide
TAR IPCC	:	Third Assessment Report of the IPCC
UN	:	United Nations Organisation
UNCED	:	United Nations Conference on Environment and Development
UNDP	:	United Nations Development Programme
UNEP	:	United Nation Environmental Programme
UNFCCC	:	United Nations Framework Convention on Climate Change
UNGASS	:	United Nations General Assembly
US / USA	:	United States / United States of America
WB	:	World Bank
WMO	:	World Meteorological Organisation
WTO	:	World Trade Organisation

ABSTRACT

The urgency to reduce current greenhouse gases emissions from both developing and developed country parties to the United Nations Framework Convention on Climate Change to stabilise the global temperature increase to 2 degrees Celsius or well below at the end of the present century has led the international climate change diplomacy to adopt the 2015 Paris Agreement on climate change in replacement to the Kyoto Protocol after it expires in 2020. Although substantially nuanced in its approach, the Paris Agreement represents as a new climate change treaty, a significant regime shift for developing countries, because it puts them under a legally binding obligation to undertake emission mitigation activities, conversely to the Kyoto Protocol which left them free from any obligation. This is because the objective of stabilising the global temperature increase at 2 degrees Celsius as said above requires considerable mitigation efforts from all countries, urged to undertake a transition towards fully decarbonised economies by the half of this century.

In order to determine to what extent the greenhouse gases emission reduction regime has for developing country shifted from what it was under the Kyoto Protocol to what it has become under the Paris Agreement, the study focuses on two following questions: (*i*) What are the differences and the similarities between the greenhouse gases emissions mitigation regime under both treaties, and, (*ii*) what are the implications of those probable differences or similarities for the developing countries? Whereas at a first glance the analysis shows that there are not much substantial elements of comparison between the two regimes instituted by the two climate change treaties, a closer consideration of the characteristics of the new universal regime under the Paris Agreement has offered pathways for an intensive regime comparison between Kyoto and Paris. Analysis further allowed us throw lights on the implications of the differences and similarities of both regimes for the group of developing countries. The study at last makes valuable recommendations for a successful implementation of the Paris Agreement by Developing countries, especially the poorest among them.

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CHAPTER I: INTRODUCTION

1.1. Background to the study

In the nineties, global concerns arose from the discovery that the earth's climate was changing due to increasing atmospheric concentrations of greenhouse gases;¹ this was mainly attributed to human or anthropogenic activities, such as energy production and consumption, industrial development, mining, agriculture, land use patterns and forestry.² The industrialisation movement which started around 1850, has been particularly finger pointed for emitting large amounts of greenhouse gases to the extent of reaching levels of concentrations that has exacerbated the natural greenhouse gas effect, causing the current climate change.³ Many adverse phenomena such as violent storms and cyclones, increase of sea levels, floods of low coastal areas, loss of biodiversity, degeneration of natural ecosystems, heats, etc. are consequences of climate change.⁴ Climate scientists predict that those events will occur with more severity in future if the current trend of greenhouse gas emissions is not improved.⁵

Under the aegis of the United Nations (UN),⁶ member states adopted the United Nations Framework Convention on Climate Change (UNFCCC) in 1992, with the ultimate objective of ensuring the stabilisation of greenhouse gas concentrations in the atmosphere at a level that will not be harmful to humankind.⁷ In other words, the

¹ Greenhouse gases refer to the gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation. See section 2.1.1 below for more details on Greenhouse gases.

² IPCC 'Climate Change 1990 and 1992 Synthesis Report' (1992) 63. Available at: http://www.ipcc.ch/ipccreports/1992%20IPCC%20Supplement/IPCC_1990_and_1992_Assessments/English/ipcc_90_92_assessments_far_full_report.pdf (Accessed: 10 April 2016).

³ See chapter two below for definition and more details on 'Climate change'; see Article 1 of the UNFCCC; See IPCC 'Climate Change 2014 Synthesis Report' (2014), 39 – 54.

⁴ P. Huybrechts & J. De Wolde 'The dynamic response of the Greenland and Antarctic ice sheets to multiple-century climatic warming' (1999) 12 *J. Clim* 2169 at 2170; IPCC (b) 'Climate Change 2014 Synthesis Report' (2014) at 40 – 54.

⁵ See 'Climate Change 2014 Synthesis Report' (2014) at 40 – 54.

⁶ The United Nations Organisation [Herein after referred to as UN] is an international organization founded in 1945 to unite the nations of the world. It is currently made up of 193 Member States. Its mission and work are guided by the purposes and principles contained in its founding Charter. See more details at: <http://www.un.org/en/sections/about-un/overview/index.html> (Accessed: 10 April 2016).

⁷ The United Nations Framework Convention on Climate Change [hereinafter referred to as "the UNFCCC", or "the Convention"] was adopted on the 19th of May 1992 in New York, and entered into force on 21 March 1994. It has currently 197 Parties, 196 of which are States and 1 is the European Union. See section 3.1.2 below for more details.

framework convention came up with the international response to the climate change threat. The unanimity upon the adoption of the UNFCCC proved a high level of engagement by country members of the UN to the climate change issue.⁸ Inspired by the regime⁹ that was instituted under the 1985 Vienna Convention for the Protection of the Ozone Layer¹⁰ and the 1987 Montreal Protocol,¹¹ the Convention adopted a regime of differential treatment as it allocated commitments to country parties (Annex I and Annex II, or developed countries, and Non-Annex I, or developing countries),¹² in acknowledgement of their unequal historical responsibilities towards climate change.¹³ The UNFCCC so acted on the basis of the principle of Equity and Common but Differentiated Responsibilities and Respective capabilities, in accordance with parties' respective capabilities.¹⁴ The Convention instituted the two key strategies that represent the international response to the climate change threat, which are the mitigation and the adaptation. It further urged developed country parties to take the lead in combating climate change and the adverse effects thereof.¹⁵

As also acknowledged under the UNFCCC preamble, developed countries are the primary contributors to the aggravation of the concentrations of greenhouse gas in the atmosphere, owing to two centuries of industrialisation.¹⁶ That was the reason why it was agreed under the Convention not to put on the two groups of countries the same burden with respect to emissions reduction obligations.¹⁷

⁸ Moncel *et al* "Building the climate change regime: Survey and analysis of approaches." *WRI/UNEP* (2011) at 2. Available at: http://pdf.wri.org/working_papers/building_the_climate_change_regime.pdf (Accessed: 10 April 2016).

⁹ See section 2.1.1 below for the definition of a "Regime".

¹⁰ The 1985 Vienna Convention for the protection of the ozone layer [herein after referred to as "the 1985 Vienna Convention"] See Section 3.1.1.2 below for more details.

¹¹ 'The Montreal Protocol to the 1985 Vienna Convention for the protection of the ozone layer was originally adopted on 16 September 1987, and entered into force on 1 January 1989. See Section 3.1.1.2 below for details.

¹² Article 4 of the UNFCCC.

¹³ See Preamble of the UNFCCC; W. Obergassel *et al* 'Phoenix from the ashes—An analysis of the Paris Agreement to the United Nations Framework Convention on Climate Change' (March 2016) at 8. Available at: http://wupperinst.org/fa/redaktion/downloads/publications/Paris_Results.pdf. (Accessed: August 18, 2016); See also D. Bodansky (a) 'The history of the global climate change regime' (2001) IRGCC 23 at 40; D. Sher & A. Sauer 'The Montreal Protocol and Its Implications for Climate Change' (2009) Issue Brief EESI. Available at: http://www.eesi.org/files/100609_montreal_brief.pdf, (accessed: 20 Avril 2016).

¹⁴ Article 3.1 of the UNFCCC.

¹⁵ *Ibid. see for more details:* <http://unfccc.int/focus/adaptation/items/6999.php>. Accessed on 10 May 2016. See also <http://unfccc.int/focus/Mitigation/items/6999.php>. Accessed on 10 May 2016.

¹⁶ Preamble of the UNFCCC.

¹⁷ *Ibid* UNFCCC; Article 3.1 of the UNFCCC; Obergassel (note 13 above; 43).

In 1997, almost five years after the adoption of the UNFCCC, in pursuit of the ultimate objective of the Convention, country parties agreed to adopt a legally binding instrument, the Kyoto Protocol¹⁸ which introduced binding emission reduction targets only for developed countries, urging them to reduce their anthropogenic emissions by at least 5.2 percent in average, below the 1990 levels.¹⁹ The protocol refrained from providing for any emissions limitations to developing countries, arguing that they played no significant role in the current aggravation of GHG atmospheric concentration.²⁰ However, the Protocol ran for a first commitment period, from 2005 to 2012, without yielding the expected outcome.²¹ The second commitment period has been running since 2013 to end in 2020, with comparatively lesser country parties and hence lesser emissions covered.²²

In 2005, scholars such as Philibert,²³ drew attention to the fact that the absence of binding emissions limitations to developing countries had the potential to increase their emission over time, and therefore defeat the very purpose of the Convention. Similarly, scholars such as Den Elzen,²⁴ and Dellink²⁵ noticed the increasing change in the global

¹⁸ The Kyoto Protocol to the UNFCCC [Hereinafter referred to as “the Protocol”, or “Kyoto”] See chapter four below for more details; See also Glemarec *et al* ‘Catalysing Climate Finance: A Guidebook on Policy and Financing Options to Support Green, Low-Emission and Climate-Resilient Development.’ (2011) *UNDP* at 9; Available at: http://unfccc.int/kyoto_protocol/items/2830.php (Accessed: 10 May 2016).

¹⁹ The Kyoto emissions targets varied in three ways, between (i) -10 degrees Celsius from 1990 emission levels, (ii) the stabilization of 2005 levels, and (iii) allowable increases from 1990 levels. But in average, it came to 5.2 percent of reduction. See Article 3 of the Kyoto Protocol, and Annex B of the UNFCCC for details; See also chapter four below for more details; See also K.L. Mbeva & P. Pauw ‘Self-Differentiation of Countries’ Responsibilities Addressing Climate Change through Intended Nationally Determined Contributions’ (April 2016) Discussion Paper *Deutsches Institut für Entwicklungspolitik*, at 9-10. Available at: https://www.die-gdi.de/uploads/media/DP_4.2016.pdf. (Accessed: 10 August 2016).

²⁰ Principle 7 of the 1992 Rio Declaration proclaims that ‘in the view of different contributions to the global environmental degradation, States have common but differentiated responsibilities’. See United Nations (1992)

‘Rio de Janeiro Declaration on Environment and Development’ at 2. Available at: http://www.unesco.org/education/nfsunesco/pdf/RIO_E.PDF. (Accessed: 7 May 2016); See also preamble and Article 3.1 of the UNFCCC.

²¹ E.R. Korhola *The rise and the fall of the Kyoto Protocol* (Unpublished LLM thesis, University of Helsinki, 2014) 19-20. Available at: <https://helda.helsinki.fi/bitstream/handle/10138/136507/Therisea.pdf>; (Accessed: 02 February 2016).

²² *Ibid* Korhola at 21.

²³ C. Philibert *et al* ‘Considering the options: climate targets for all countries’ (2001) 1 (2) *Clim Policy* 211 at 212.

²⁴ Den Elzen, M. *et al* ‘Differentiating future commitments on the basis of countries’ relative historical responsibility for climate change: uncertainties in the ‘Brazilian Proposal’ in the context of a policy implementation’ (2008) 71 (3) *Climatic Change* 277 at 277.

²⁵ R. Dellink *et al* ‘Sharing the burden of financing adaptation to climate change’ (2009) 19 (4) *GEC* 411 at 415.

distribution of contributions to greenhouse gas emission. This was due to a rapid industrialisation of developing countries.²⁶ They concluded that there was increasing probability for a new regime that will split responsibilities in the future, between those that were already identified as historically responsible for climate change, and the current and future new responsible for climate change that are being identified, which are the developing countries with fast developing economies.²⁷ Along with Den Elzen,²⁸ other scholars also noticed the continuing rise in global emissions and concentrations of greenhouse gases throughout the 21st century, a contradiction to the objective of the UNFCCC.²⁹ Dellink³⁰ for example, criticised countries for being responsible for the rise of emissions in contradiction to the commitments they themselves made for emission reduction under the UNFCCC and the Kyoto protocol.³¹

As discussed by Dubois³² and other scholars,³³ the UNFCCC differential treatment approach lost its broader support over the years. This arguably for three reasons. First, as supported by Dubois,³⁴ in comparison to 1992, the world's situation has rapidly changed. Developing countries are today a more heterogeneous group that is at diverse stages of development, and they differ in vulnerability towards climate change, and hence the need of differentiating among them as well.³⁵ Secondly, it became noticeable that emissions from developing countries rapidly grew into alarming proportions, as put by Winkler.³⁶ Therefore, there came up a need for mitigation actions on the side of developing countries in contribution to the objective of the Convention, although for the majority of them, much more emphasis had to be put rather on adaptation to climate change, considering the insignificance of their GHG emissions. Thirdly, the pressure put by the significant emission gap between countries' mitigation pledges and the required

²⁶ *Ibid.*

²⁷ Elzen (note 24 above; 277); W.J.W. Botzen *et al* 'Cumulative CO₂ emissions: shifting international responsibilities for climate debt' (2008) 8 *Climate Policy* 569 at 570.

²⁸ *Ibid* Elzen.

²⁹ Moncel (note 8 above; 2); Dellink (note 25 above; 411).

³⁰ *Ibid* Dellink at 415.

³¹ Korhola (note 21 above; 19-20)

³² S.M. Dubois 'the Paris Agreement: A New Step in the Gradual Evolution of Differential Treatment in the Climate Regime?' (2016) 25 2 *RECIEL* 151 at 151.

³³ J. Lee 'Rooting the Concept of Common but Differentiated Responsibilities in Established Principles of International Environmental Law' (2015) 17 *VJofEnv law* 28 at 29.

³⁴ Dubois (note 32 above; 152).

³⁵ *Ibid* Dubois; H. Winkler *et al* (a) 'Future mitigation commitments: differentiating among non-Annex I countries' (2006) 5 (5) *Climate Policy* 469 at 473.

³⁶ *Ibid* Winkler (a).

volume of emissions that was needed for a reduction in order to maintain the increase of the terrestrial temperature within harmless levels.³⁷ Therefore, there grew among country parties to the UNFCCC a need to develop a more global instrument whose regime will solve the above concerns.

Adopted within the above context, the 2015 Paris Agreement aimed at strengthening the global response to the threat of climate change by holding the increase in the global average temperature to well below 2 degrees Celsius, or at best 1.5 degrees Celsius above pre-industrial levels.³⁸ Based on the principle of Equity and Common but Differentiated Responsibilities and Respective Capabilities, in the light of different national circumstances, the Paris Agreement is applicable to all the parties to the UNFCCC, thus putting an end to the differential treatment that existed under the Kyoto protocol.³⁹

1.2. Problem statement

Although nuanced in substance, the Paris Agreement represents a significant regime shift for developing countries, as it puts them under legally binding obligation to undertake greenhouse gases emission mitigation activities.⁴⁰ This is because the urgency to reach the ambitious goal of stabilising the global temperature increase at 1.5 degrees Celsius requires considerable efforts from all countries to achieve full decarbonisation of their economies by 2050.⁴¹ Such a shift will require a broad and deep transition within the legal and financial sectors.⁴² However, it is well documented that the capacity of

³⁷ ‘The emissions gap between what the full implementation of the unconditional INDCs contribute and the least-cost emission level for a pathway to stay below 2°C, is estimated to be 7 GtCO₂e in 2025 and 14 GtCO₂e in 2030. See UNEP *The Emissions Gap Report 2015* (2015) at 18. Available at: http://uneplive.unep.org/media/docs/theme/13/EGR_2015_301115_lores.pdf (Accessed: 10 April 2016).

³⁸ Article 2 of the Paris Agreement.

³⁹ *Ibid* Article 2 and Article 3.

⁴⁰ Article 3 of the Paris Agreement provides: ‘As Nationally Determined Contributions to the global response to climate change, all Parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view of achieving the purpose of this Agreement as set out in Article 2. The efforts of all Parties will represent a progression over time, while recognizing the need to support developing country Parties for the effective implementation of this Agreement.’

⁴¹ Article 4.1 of Paris Agreement; M. Ivanova ‘Good COP, bad COP: Climate Change after Paris’ (2016) *Briefing note* at 415. Available at:

http://www.futureun.org/media/archive1/briefings/FUNDS_Brief40_Paris_Climate_April2016.pdf. (Accessed: 12 September 2016).

⁴² *Ibid*.

developing countries to adapt to climate changes and to minimise their own contributions to it through mitigation actions is constrained by their limited resources.⁴³ Although the regime under the Paris Agreement acknowledges the need for a support to developing countries to effectively implement the treaty, no legal obligation has been put on developed parties to provide that support.⁴⁴

Meanwhile, after the entry into force of the Agreement in 2020, developing countries will be under legal obligation to submit their Nationally Determined Contributions (NDC) to UNFCCC Secretariat as a contribution to the global response to climate change that reflects a progression of national ambitions over a period of time,⁴⁵ which will be reviewable every five years.⁴⁶ This amounts to considerable mitigation efforts to be undertaken at the expense of their nationally scarce resources,⁴⁷ while the reality of parties' differing capabilities to address the various climate change issues poses problem, and remain one of the two prongs of the CBDR principle, along with the varying historical responsibilities parties have towards climate change.⁴⁸

This study, therefore, is centred on the shift that occurred between the regime of the 1997 Kyoto Protocol to the UNFCCC and the regime of the 2015 Paris Agreement on climate change for the group of developing countries, with respect to greenhouse gases emissions mitigation. The study will follow the pathway of the universal regime as it was progressively taking place under the aegis of the Conference of the Parties to the United Nations Convention on Climate Change. The study will further identify and discuss the key features of the new regime under the Paris Agreement, which represents a major transition for developing countries, in comparison to their situation under the Kyoto Protocol.

⁴³ IPCC '*Climate Change 1990 and 1992 Synthesis Report*' (1992) at 113; M. Betsill *et al* 'Building Productive Links between the UNFCCC and the Broader Global Climate Governance Landscape' (2015) 15 (2) *G EP* 1 1.

⁴⁴ See Article 3 of the Paris Agreement at note 40 above.

⁴⁵ *Ibid.*

⁴⁶ Article 14.2 of the Paris Agreement.

⁴⁷ See for more details W. Chandler *et al* 'Climate change mitigation in developing countries' (2002) *PCGCC* at ii. Available at: http://www.c2es.org/docUploads/dev_mitigation.pdf, (Accessed: 14 September 2016).

⁴⁸ L. Rajamani (a) *Differential treatment in international environmental law* 175 (2006) at 1-2; this (and other legal elements) will be discussed in more detail below at section 5.4.7.

1.3. Objective of the study

Against this background, the study sets out to draw a comparative analysis between the two legal regimes that govern greenhouse gases emission abatement by developing countries. The first regime is the one under the 1997 Kyoto Protocol (the first and the second commitment periods) and the second regime is the one under the 2015 Paris Agreement on climate change. To that end, the study will be limited and focused only on the core provisions of both instruments that are concerned about the issue of the greenhouse gases emissions reduction by developing countries.

1.4. Reason for choosing the subject and limitations to the study

Many analyses have been conducted on the Kyoto Protocol's legal regime for developing countries, regarding the ultimate objective of the UNFCCC. They are standing witnesses of the contribution of scholars to the legal debate on the issue of climate change. Doubtlessly, it is thanks to them that further steps have been taken in the international climate change governance. This was also stated in the Paris Climate Agreement, called to supersede the repudiated Kyoto Protocol, which is awaiting the expiration of its second commitment period in 2020, to flow into the ocean of history. The present research, however, finds its justification in the fact that it is relevant to consider well in advance the entry into force of the Paris Agreement the bulk of the greenhouse mitigation legal obligation that lies on the shoulders of the developing country parties. Although the study will not constitute a normative assessment of the Paris Agreement and its new universal climate change regime, but rather a tracking of the transition of the emission mitigation regime for developing countries from Kyoto to Paris, the study will nevertheless explore some of the probable weaknesses of the Agreement that are linked with developing countries mitigation regime. Such insights will doubtlessly help the reader have a broader view on the legal and institutional issues with respect to the new emission mitigation obligations for developing countries. Conclusions will be drawn from the analysis which we hope will have the honour of putting some few matters on the ever-busy table of scholars for further insightful investigations and debates.

1.5. Key question to be answered

The key question to be investigated in the study is, “To what extent has the greenhouse gases emission reduction regime of developing country parties to the United Nations Framework Convention on climate change shifted from the 1997 Kyoto Protocol to the 2015 Paris Agreement on climate change?” To do so, the study will be focused on the following broad questions:

- i. What are the differences and the similarities between the greenhouse gases emissions mitigation regime under the 1997 Kyoto Protocol to the UNFCCC and the 2015 Paris Agreement on climate change for developing countries?
- ii. If there are any differences or similarities in the greenhouse gases emissions reduction obligations under the 1997 Kyoto Protocol and the 2015 Paris Agreement, what are the implications of those differences or similarities for the developing countries?

1.6. Research methodology

This is a desktop study and it will include a content analysis, comparison of regimes under the two different treaties, analysis of official reports and statistics from some national and international authoritative institutions, as well as applicable scholarly literature.

1.7. Structure of the dissertation

The dissertation starts with a first chapter that proposes an overview of the study, followed by a second chapter that focuses on the key concepts of the study, with, in its heart, the CBDR Principle, the spearhead of the differential treatment under the UNFCCC and the Kyoto Protocol, and heart of the Paris Agreement as well. Its third chapter will bring in the consideration of the historical developments of the developing countries’ international climate change regime as it evolved over the years. The fourth chapter will analyse the legal regime that is governing emissions reduction by

developing countries under the Kyoto Protocol, while the fifth chapter will lean on the emissions' reduction legal regime by developing countries under the Paris Agreement. A sixth chapter will briefly undertake a comparative analysis between the two regimes established by the two treaties, before handing over to a seventh chapter that will be a conclusion to the research.

CHAPTER II: KEY CONCEPTS OF THE STUDY

2.1. Introduction

*'There is no question that climate change is happening; the only arguable point is what part humans are playing in it.'*⁴⁹

Through the recent decades, climate change has become one of the highly discussed topics in the public domain, and will probably continue in the future to be one of the most important subjects that are discussed internationally.⁵⁰ From a legal perspective, the issue of climate change has become one of the central spots of the international environmental law diplomacy.⁵¹ In this regard, the feeling of the interest for the current study is to first ensure that the notion of climate change, along with its related major topics are properly introduced, defined and discussed because this study will refer to them throughout. This will also be the case for notions such as “greenhouse gas”, “developing and developed countries”, and the CBDR which are linked to climate change, and will be referred to throughout this study abundantly. These general key notions are explored before engaging into the proper legal analysis in order to avoid basing this present study on biased information. Therefore, this chapter starts with the notions of climate change, greenhouse gases emission and mitigation, then it discusses the concepts of developing and developed countries before focusing on the principle of CBDR as conceptually defined and understood by some of the key emitting countries, and also how the principle applies under the ozone layer regime and under the Convention on Biological Diversity (CBD), two regimes that share some similarities with the climate change regime.⁵²

⁴⁹ Quote from David Attenborough. Available at: http://www.brainyquote.com/quotes/keywords/climate_change.html. (Accessed: 28 October 2016).

⁵⁰ S. Barrett *et al* ‘Towards a workable and effective climate regime’ (2015) *Re3* Forthcoming at 23.

⁵¹ Baker & Mckenzie *The Paris Agreement: Putting the first universal climate change treaty in context* (2015) at 25. Report available at: http://www.bakermckenzie.com/-/media/files/insight/publications/2016/01/the-paris-agreement/ar_global_climatechangetreaty_apr16.pdf?la=en. (Accessed: 14 October 2016).

⁵² G.J. Velders *et al* ‘The importance of the Montreal Protocol in protecting climate’ (2007) *104* (12) *PNAS* 4814 at 4818.

2.2. The climate change phenomenon: Discovery, description and reasons for concern⁵³

A newly observed atmospheric phenomenon that was previously unknown to both scientists and the general public, the “greenhouse effect” caught the attention of the Swedish chemist S. Arrhenius at the turn of the 20th century.⁵⁴ While pursuing his researches, Arrhenius⁵⁵ later found out that the observed greenhouse effect was even related to a more complex phenomenon that was also occurring, which signalled itself through observed changes in the climate of the planet earth. Climate is defined as the ‘average weather’,⁵⁶ while the observed changes in the climate are referred to as “climate change”.⁵⁷

Two globally accepted definitions of climate change serve as references: the IPCC definition,⁵⁸ also qualified as the “scientific definition”,⁵⁹ and the UNFCCC definition, also tagged as the “political definition”,⁶⁰ Pielke⁶¹ noticed the existence of serious

⁵³ See section 3.1.1 below for details on the history of the discovery of climate change.

⁵⁴ Bodansky (a) (note 13 above; 32).

⁵⁵ ‘In 1895, S. Arrhenius presented an answer to the Stockholm physical society in a work entitled ‘on the influence of carbonic acid in the air on the temperature of the ground’ formulating a scientific model for the planet in which, changes in the atmospheric levels of carbon dioxide are matched by changes in surface temperatures. He further published a book ‘Worlds in the making (1908)’ in which he described the greenhouse effect (referred to as the hot-house theory) confirming that the earth’s surface temperature would be about 30 degrees Celsius cooler than it presently is without the effect of atmospheric gases’; See Bodansky (a) (note 13 above; 24).

⁵⁶ Climate is described in terms of the mean and variability of temperature, precipitation and wind over a period of time, ranging from months to millions of years (the classical period being 30 years); See for details: IPCC 2014 (a) *Climate Change: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2014) at 96. Available at: https://www.ipcc.ch/pdf/assessment-report/ar5/wg3/ipcc_wg3_ar5_full.pdf. (Accessed: 12 August 2016).

⁵⁷ IPCC 2014 (note 56 above; 1255).

⁵⁸ The Intergovernmental Panel on Climate Change, hereinafter referred to as ‘the IPCC’. It is a cosponsored independent scientific body consisting of over 2000 scientific and technical experts from around the world, who collect scientific information about the causes of climate change, its potential effects and possible ways to mitigate these effects. It was established in 1988. It issued its First Assessment Report in 1990 under the title “Climate Change, the IPCC scientific assessment”, confirming the threat of climate change, however with no scientific certainties with respect to its causes, effects on ecosystems, humans, etc. The IPCC’s subsequent reports have progressively brought in more lights on Climate change related issues and consequently dispersed many previous uncertainties. Information available at: <https://www.ipcc.ch/organization.shtml>; (Accessed: 9 May 2016).

⁵⁹ Legates *et al* ‘Climate consensus and ‘misinformation’: a rejoinder to agnotology, scientific consensus, and the teaching and learning of climate change’ (2015) 24 3 *Sc. & Ed.* 299 at 309.

⁶⁰ *Ibid*.

⁶¹ AR. Pielke ‘Misdefining “climate change”: consequences for science and action’ (2005) 8 (6) *ES & P* 548 at 549.

inconsistencies between what the scientific community under the IPCC regard as “climate change” and what constitutes “climate change” in the language of the climate change convention.

Article 2.1 of the UNFCCC defines climate change as a change of climate which is attributed directly or indirectly to human activities that alter the composition of the global atmosphere,⁶² and which is in addition to natural climate variability,⁶³ observed over comparable time periods”.⁶⁴ The IPCC proposed a more inclusive definition, in contrast to the restrictive one in the UNFCCC. Climate change for the IPCC refers to a change in the state of the climate that can be identified by changes in the mean and / or the variability of its properties and which persist for an extended period, typically decades or longer”.⁶⁵ Changes in the state of climate are identified through the use of statistical tests.⁶⁶ Hardy⁶⁷ noticed that scientists tend to use the UNFCCC’s definition of climate change while referring to the post-industrial era, whereas they use the IPCC one for the pre-industrial times.

The interpretation of ‘the climate change definition’ has evolved according to Gupta,⁶⁸ who noticed that it earlier took into account environmental issues, and later on started broadening progressively to include developmental considerations. Not only that but the UNFCCC attributed climate change exclusively to human activities, not taking into consideration any other probable causative factors, whereas, for the IPCC, climate

⁶² ‘The earth's atmosphere consists of about 78% nitrogen (N₂), 20% oxygen (O₂), and a mixture of small amounts of numerous other ingredients such as carbon dioxide (CO₂), water vapour (H₂O), methane (CH₄), sulfur dioxide (SO₂), and carbon monoxide (CO). Some of these minor constituents do, however, have big impacts.’ Information available at: http://www.windows2universe.org/earth/Atmosphere/chemical_composition.html&edu=high. (Accessed: 14 October 2016).

⁶³ ‘Climate variability refers to variations in the mean state and other statistics of the climate on all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability).’ See for details IPCC 2014 (note 56 above; 1257).

⁶⁴ Article 1. 2 of the UNFCCC.

⁶⁵ IPCC 2014 (note 56 above; 1255); It is important to notice that the definition of Climate Change proposed by the IPCC in 2014 is the result of some adjustments since the first IPCC Assessment Report in 1992, that were made as more scientific evidences were brought forward. The definition of Climate Change by the UNFCCC has on the contrary enjoyed a certain stability, undoubtedly thanks to its statutory nature, even though it has suffered strokes of critics and calls for adjustments ever since; See JT. Hardy ‘Climate change: Causes, Effects, and Solutions’ (2003) *John Wiley & Sons* at 4.

⁶⁶ IPCC 2014 (note 56 above; 1257).

⁶⁷ Hardy (note 63 above; 4); JT. Houghton *Global Warming: The Complete Briefing* 4 Ed (2009) at 11.

⁶⁸ J. Gupta ‘History of international climate change policy’ (2010) 1 *WCC* 636 at 636-637.

change was the result of many factors, not only those of anthropogenic origin. To that end, the IPCC mentions for instance, the natural internal processes and the external forces such as the modulations of solar cycles and the volcanic eruptions.⁶⁹

By adopting such a restraining approach in defining climate change, the Framework Convention made it clear from the start that it was of the view that all the efforts to be deployed in the sense of healing the climate were to be done with focus on anthropogenic activities alone.⁷⁰ Kiss explains that the UNFCCC did so, because its purpose was to prevent any harm to the climate system by way of regulating state actions that are influential to the global climate,⁷¹ whilst a legal instrument was not the proper tool to regulate or have any effect on any of the natural causes of climate change. Therefore, the UNFCCC being a treaty, had to focus on the anthropogenic causes, because they are the only ones that are subject to human re-adjustment and manipulation.⁷²

In the present research, both definitions will be referred to as we consider them both to be credible. However, no special mention attached to the definition will always be suggested to the reader as a reference to the UNFCCC definition, whereas a special mention will signal whenever the researcher expects climate change to be momentarily envisaged from the IPCC perspective.

Many adverse phenomena such as the warming of the atmosphere and the ocean, violent storms and cyclones, an increase of sea levels, floods of low coastal areas, loss of

⁶⁹ For details about “internal processes”, and the “external forcing” see IPCC 2014 (note 56 above; 1255).

⁷⁰ From the beginning, the UNFCCC sowed but not purposely seeds of future conflicts around a suitable approach of combating climate change. By way of fearful discourses, nations were put under pressure and pushed to quick climate change actions, whilst there was yet not enough certainty on the human origins of climate change. Nations therefore were urged to act, however, states later abandoned that initial monolithic anthropogenic conception of the human’s origins of climate change, to embrace a more questionable conception of the matter, which henceforth accompanied the climate change discussions under the aegis of the UNFCCC. See Pielke (note 61 above; 548).

⁷¹ ‘The climate system is the highly complex system consisting of five major components: the atmosphere, the hydrosphere, the cryosphere, the lithosphere and the biosphere, and the interactions between them. It evolves in time under the influence of its own internal dynamics and because of external forces such as volcanic eruptions, solar variations and anthropogenic forces such as the changing composition of the atmosphere and land use change (LUC).’ See for more details: IPCC 2014 (c) *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2014) at 1761; see Article 2 of the UNFCCC; see A. Kiss & D. Shelton *International Environmental Law* 2 Ed (2000) at 512.

⁷² *Ibid* Kiss.

biodiversity, degeneration of natural ecosystems, heats, etc. are listed among the consequences of climate change.⁷³ Climate scientists predict that those events will occur with more severity in future if the current trend of greenhouse gas emissions is not improved.⁷⁴ In its 2014 IPCC Synthesis Report, the IPCC identified five reasons of concern about additional temperature increases due to climate change.⁷⁵ These include the concern regarding the following:

- Unique and threatened ecosystems and species.
- The increase in the frequency and damage from extreme weather events.
- The greater climate change vulnerability of homes of poorer communities.
- The growing economic costs caused by the impacts acquired over time by increased atmospheric concentrations GHG.
- The growing possibility of the occurrence of large scale singular events.

Whereas, there are some unique and threatened ecosystems, cultures or species that are already at risk because of climate change, an additional warming of 1°C will as well represent for them additional risks, whereas a 2°C rise will mean a very high risk and increased vulnerability for many systems, especially those characterised by limited adaptive capacity.⁷⁶ Although climate change related risks from extreme events such as heat waves, heavy precipitations, and coastal flooding, are moderate at present, a 1°C additional warming will represent a risk of increasing them.⁷⁷

In addition, the risks and consequences associated with climate change are unevenly distributed between groups of people and regions of the planet.⁷⁸ With increasing warming, some physical and ecological systems are at risk of abrupt and/or irreversible changes.⁷⁹ It was noticed that climate change risks and consequences were generally greater for disadvantaged people and communities everywhere.⁸⁰ For instance the

⁷³ Huybrechts (note 4 above; 2170); IPCC 2014 (b) *Climate Change 2014 Synthesis Report* at 40 – 54. Available at: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf. (Accessed: 12 August 2016).

⁷⁴ IPCC 2014 (a) (note 56 above; 40 - 54).

⁷⁵ IPCC 2014 (b) (Note 73 above; 151).

⁷⁶ *Ibid* IPCC 2014 (b) at 70.

⁷⁷ *Ibid*.

⁷⁸ *Ibid*.

⁷⁹ *Ibid*.

⁸⁰ *Ibid*.

negative impact of climate change on crop production which is already serious in developing countries than in the developed ones will worsen with an additional warming of above 2 degrees Celsius.⁸¹ Although moderate with a one to two degrees Celsius temperature raise, there are further concerns about global aggregate impacts such as the loss of biodiversity and other impacts on the global economy.⁸²

2.2.1. The rationale for a legal response to the climate change phenomenon

The law is the discipline that regulates behaviours of all community members, binding them to the observance of its recognised values and standards.⁸³ That is why, after the discovery of the climate change phenomenon, and the understanding of its drivers, the law had to be called upon by country parties to the United Nations Organisation in order to help drive a global climate change regime which would be an effective response to the climate threat. A regime is broadly defined as a system of principles and rules that are governing something and which is created by the law.⁸⁴

As discussed in the previous sections, GHG are emitted from natural or anthropogenic sources which are generally located within sovereign states' jurisdictions. Despite the fact that the GHG emissions originate from local jurisdictions, their consequences are spread over and beyond the boundaries of national territories from where they are emitted, and thus are shared with remote foreign jurisdictions.⁸⁵ Shaw⁸⁶ even talks about the consequences of greenhouse emissions being "imposed" to remote victimised communities, because of the fact that the Earth's climate functions as a whole coordinated and interrelated system. This, among the other things is what justified the adoption of the 1992 United Nations Climate Change Convention and its 1997 Kyoto Protocol. The first climate change regime began in 1992 and will be issued in 2020. However, from 2020 onwards, the 1997 Kyoto Protocol will be replaced by the 2015

⁸¹ *Ibid.*

⁸² *Ibid.*

⁸³ M.N. Shaw *International Law* 6 Ed (2008) at 1.

⁸⁴ More detail about the definition of 'regime' available at: <http://definitions.uslegal.com/l/legal-regime/>, (Accessed: 02 April 2016).

⁸⁵ Shaw (note 83 above; 1).

⁸⁶ *Ibid.*

Paris Agreement, which will be the key climate change treaty, in co-existence with the UNFCCC whose objective the Paris Agreement has the ambition to enhance.⁸⁷

To effectively and proactively deal with the climate change threat, the UNFCCC regime established an institutional mechanism, a supreme body of the treaty, which is the Conference of the Parties to the UNFCCC (COP).⁸⁸ The COPs have the mandate to take any decision that they find necessary to promote the effective implementation of the Convention. The COPs are identified by adding a number at the end, so that the first COP is denominated COP1, the second is COP2, and so on.

Articles 2 and 16.1 of the UNFCCC entitle the COPs to adopt protocols or any other legal instrument under the Convention.⁸⁹ On this basis, country parties adopted the 2015 Paris Agreement as a universally legally binding treaty to enhance the climate change global action.

The Paris Agreement does not merely constitute an addition or a clarification to its mother treaty the UNFCCC, as it was the case for the Kyoto Protocol. Viewed from several angles, the Paris Agreement constitutes an innovation compared to either the UNFCCC or the Kyoto Protocol. It has for instance, dropped the Kyoto Protocol's top down approach of sharing emissions obligations from targets that are defined inside the treaty, in favour of a more bottom up approach,⁹⁰ that have the merit of leaving up to country parties the initiative of fixing themselves their national emissions limitation targets.⁹¹

⁸⁷ See section 5.3.2 for details about the objective of the Paris Agreement.

⁸⁸ See Article 7 of the UNFCCC for more details about the Conference of the Parties institutional mechanism.

⁸⁹ Article 2, of the UNFCCC provides as follows: ‘the ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at levels that would prevent dangerous anthropogenic interference with the climate system.’ The COP therefore acknowledged having legal right to adopt “any legal instruments” related to the UNFCCC.

⁹⁰ D. Bodansky (b) ‘A tale of two architectures: the once and future UN climate change regime’ In *Brill Climate Change and Environmental Hazards Related to Shipping: An International Legal Framework* (2012) 35 at 35.

⁹¹ See chapter 3.2.3 below for more details.

2.2.2. The Greenhouse Gases: Description, link with climate change, and the reasons for concern⁹²

In 2010, mankind injected approximately 49-54 billion tonnes of Greenhouse Gases (GHG) to the atmosphere.⁹³ At the release of the 2014 IPCC's 5th Assessment report in 2014, the 2010's record was the highest level that the anthropogenic GHG emissions ever reached in the climate change history.⁹⁴ The same IPCC report established that the global anthropogenic GHG emissions had risen more rapidly during the period from 2000 to 2010 in comparison to the previous three decades, with an average annual growth of 1.0 billion of tonnes (2.2 percent) in comparison to 0.4 billion of tonnes (1.3 percent) per year from 1970 to 2000.⁹⁵ What raises concerns is the fact that such emissions growth have occurred despite the presence of the UNFCCC, and its Kyoto Protocol, and besides an additional wider array of national and multilateral institutions and policies that all aimed at mitigating national or regional GHG emissions.⁹⁶

Article 1.5 of the UNFCCC defines the GHG as those gaseous constituents of the atmosphere, either natural or anthropogenic, whose properties are the absorbance and emission of radiation at specific wavelengths within the spectrum of terrestrial radiation, emitted either by the Earth's surface, or the atmosphere itself, or even by the clouds.⁹⁷ Any greenhouse gas is a causal agent of the 'greenhouse effect'. The 'greenhouse effect' is the infrared radiative effect of all infrared absorbing constituents in the atmosphere.⁹⁸ The greenhouse effect is not in itself a harmful phenomenon, because it occurs naturally in order to keep the Earth's temperature liveable and stable.⁹⁹ What is harmful is its exacerbation.¹⁰⁰ In fact, the magnitude of the greenhouse effect can increase due to the exacerbation of its atmospheric concentration,¹⁰¹ which generally originates from anthropogenic activities, and eventually results in the rise of the atmospheric

⁹² Herein after referred to either as GHG, or as greenhouse gases.

⁹³ IPCC 2014 (a) (note 56 above; 1257); further details about the IPCC measurement units are available at: https://www.ipcc.ch/pdf/special-reports/sroc/sroc_a4.pdf. (Accessed: 20 October 2016).

⁹⁴ IPCC 2014 (a) (note 56 above; 42).

⁹⁵ *Ibid.*

⁹⁶ *Ibid.*

⁹⁷ IPCC 2014 (a) (note 56 above; 1263); See also Article 1.5 of the UNFCCC.

⁹⁸ *Ibid* IPCC 2014 (a).

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid.*

temperature in order to gradually restore the radiative balance at the top of the atmosphere.¹⁰² This phenomenon is referred to as the ‘Global warming’.¹⁰³ The Global warming in turn is responsible for the changes that occur in the climate, known as the climate change phenomenon.¹⁰⁴

The currently identified major GHG are:¹⁰⁵ Carbon dioxide (CO₂)¹⁰⁶ which is the most important contributor to climate change, accounting for approximately 76 percent of the phenomenon, while methane (CH₄), the second one accounts for about 16 percent; the nitrous oxide (N₂O) follows with approximately 6 percent and the combination of Per fluorocarbons (PFCs) and Hydro fluorocarbons (HFCs) accounting for 2 percent.¹⁰⁷ The predominance of the carbon dioxide’s influence on the green house phenomenon justifies the use of the Carbon Dioxide Equivalent Emission (CO₂-eq) as the measurement unit of GHG emissions.¹⁰⁸

Several factors are directly or indirectly contributing to GHG emissions,¹⁰⁹ even though the literature is not unanimous as to how they should be classified, or identified.¹¹⁰ Factors that are directly or indirectly contributing to the emission of greenhouse gases are referred to as “GHG emission drivers”, although the term, ‘driver’ may not represent an exact causality, and rather indicates an association which provides insights on the overall changes in global GHG emissions.¹¹¹

¹⁰² *Ibid.*

¹⁰³ *Ibid.*

¹⁰⁴ See section 2.1 above.

¹⁰⁵ IPCC 2014 (a) (note 56 above; 125).

¹⁰⁶ Carbon dioxide is the largest component of anthropogenic GHG emissions. It is released during the combustion of fossil fuels such as coal, oil, and gas as well as the production of cement. See R. Houghton *et al* ‘Carbon emissions from land use and land-cover change.’ (2012) 9 *Biogeosciences* 5125 at 5126.

¹⁰⁷ IPCC 2014 (a) (note 56 above; 125).

¹⁰⁸ ‘The CO₂ Equivalent (GtCO₂eq) per year is the amount of carbon dioxide (CO₂) emission that would cause the same integrated radiative forcing, over a given time horizon, as an emitted amount of a greenhouse gas (GHG) or a mixture of GHGs’. See IPCC 2014 (a) (note 56 above; 1257).

¹⁰⁹ Immediate Drivers are: Population, GDP per Capita, GHG intensity and energy intensity. Underlying Drivers are: behaviour, trade, infrastructure, resource availability, governance, technology, urbanisation and industrialisation. Policies and measures concern: economic incentive, research and development, information provision, direct regulation, non-climatic policies, and awareness creation. See details in PCC 2014 (note 56 above; 357).

¹¹⁰ ‘Some authors distinguish proximate versus underlying or ultimate drivers, whereas others propose different approaches. Proximate drivers are in general the activities directly or closely related to the generation of GHGs and underlying or ultimate drivers are those activities that motivate the proximate drivers.’ See IPCC 2014 (a) (note 56 above; 364); whereas others propose different approaches.

¹¹¹ *Ibid* IPCC 2014 (a).

Scholars also do not share the same view on the issue of what constitutes a key GHG emission driver. For instance, Hertwich and Peters¹¹² think that it is the consumption patterns, whereas O'Neill¹¹³ concludes in favour of the population growth, and Bolla and Pendolovska¹¹⁴ draw attention rather to the energy consumption patterns. Blodgett and Parker¹¹⁵ find the population and economic growth to be the main GHG emission explanatory factors, while Jakob¹¹⁶ points out the international trade. On summarising the debate, the IPCC recognises that more often, it seems difficult to isolate a clear or unique cause-and-effect relation for a certain phenomenon through the lens of scientific observation. Not only that but the reality is that most of the drivers of GHG emissions are interlinked with each other, and besides they each can be deconstructed into various sub-components.¹¹⁷

Despite these opposing ideas, many scholars however agree on the fact that the GHG emission drivers can be either immediate, or underlying, or even of a policy and measures order.¹¹⁸ Immediate drivers touch to issues such as the size of the population, the GDP per capita, the energy intensity pattern as well as the GHG intensity.¹¹⁹ Underlying drivers refer to factors such as behaviours, trade, resources availability, governance, technology, urbanisation, industrialisation, as well as matters regarding infrastructure development.¹²⁰ Policies and measures that affect GHG emissions are those that address climate change awareness, economic incentives, local and national

¹¹² E.G. Hertwich & G.P. Peters ‘Carbon footprint of nations: A global, trade-linked analysis’ (2009) 43 (16) *Environ. Sci. technol.* 6414 at 6414. Available at: <http://pubs.acs.org/doi/pdf/10.1021/es803496a> (Accessed: 05 September 2016).

¹¹³ B. C. O'Neill *et al* ‘Global demographic trends and future carbon emissions’ (2010) 107 *Nat. Acad. Of Sc. of the USA* 17521 at 17521. Available at: <http://www.pnas.org/content/107/41/17521.short>. (Accessed: 05 September 2016).

¹¹⁴ V. Bolla & V. Pendolovska ‘Driving forces behind EU-27 greenhouse gas emissions over the decade 1999–2008’ (2011) 10 *SinF* 1 at 1. Available at: http://temis.documentation.developpement-durable.gouv.fr/documents/Temis/0068/Temis-0068967/Eurostat_2011_10.pdf. (Accessed: 05 July 2016).

¹¹⁵ J. Blodgett & L. Parker ‘Greenhouse Gas Emission Drivers: Population, Economic Development and Growth, and Energy Use’ *Congressional Report Service* (2010) 1-7 Washington, D. C. Available at: <http://nationalaglawcenter.org/wp-content/uploads/assets/crs/RL33970.pdf>. (Accessed: 05 September 2016).

¹¹⁶ M. Jakob *et al* ‘Between a Rock and a Hard Place: A Trade-Theory Analysis of Leakage under Production- and Consumption-Based Policies’ (2013) 56 *Envi. & Res. Econ.* 47 at 50. Available at: <http://link.springer.com/article/10.1007/s10640-013-9638-y>. (Accessed: 05 September 2016).

¹¹⁷ IPCC 2014 (a) (note 56 above; 365).

¹¹⁸ IPCC 2014 (a) (note 56 above; 357).

¹¹⁹ *Ibid.*

¹²⁰ *Ibid.*

planning, research and development, information provision, direct regulation, and GHG related non-climate policies.¹²¹

Since its establishment in 1988, the IPCC has released five global assessment reports on climate change in which it provides estimations on the level of certainty of anthropogenic interferences in the climate system.¹²² Despite divergent reasoning from few scholars, the overwhelming majority of studies are unanimous regarding the character of the current human induced climate change.¹²³ To date there is a stronger scientific consensus around the 95 percent of certainty established by the IPCC that the climate change is a human induced phenomenon, due to the build-up of GHGs. There is also consensus on the fact that stronger and firmer actions to curb the phenomenon should be taken without delay.¹²⁴ That is why the global climate change diplomacy lifted the issue of GHG emission reduction to the top of the world's agenda.¹²⁵

However, as for the developing countries (being the focus of the present research), their industrialisation process has been energy-intensive, with enormous ejection of GHG to the atmosphere,¹²⁶ as it was the case with the current OECD countries before 1970.¹²⁷ The OECD countries were the ones that mostly contributed to the pre-1970 emissions, whereas since 2010 onwards, developing countries and Asia in particular increasingly became the main emitters.¹²⁸ This is because of the fast growing and urbanisation of developing countries experiencing important increases in energy demand, and consequentially in CO₂ emissions as far as fossil fuel is concerned for energy supply.¹²⁹

¹²¹ See IPCC 2014 (a) (note 56 above; 351-397) for more details on the drivers of the GHG.

¹²² IPCC Assessment Reports available at:

https://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml. (Accessed: 23 August 2016).

¹²³ IPCC 2014 (a) (note 56 above; 359).

¹²⁴ Moncel (note 8 above; 2); IPCC 2014 (b) (Note 73 above; 151).

¹²⁵ *Ibid* IPCC 2014 (b).

¹²⁶ IPCC 2014 (a) (note 56 above; 359).

¹²⁷ 'The Organisation for European Economic Cooperation (OEEC) was established in 1948 to run the US-financed Marshall Plan for reconstruction of the European continent ravaged by the Second World War. Canada and the US joined OEEC members in signing the new OECD Convention on 14 December 1960. The Organisation for Economic Co-operation and Development (OECD) was officially born on 30 September 1961, when the Convention entered into force. Japan joined it in 1964. Today, it has 35 OECD member countries worldwide regularly turn to one another to identify problems, discuss and analyse them, and promote policies to solve them.' Information available at: <http://www.oecd.org/about/history/> (Accessed: 09 August 2016); See IPCC 2014 (a) (note 56 above; 357).

¹²⁸ IPCC 2014 (a) (note 56 above; 359).

¹²⁹ *Ibid* at 370.

That energy demand from developing countries is even expected to become bigger in future, due to their economic growth which is of an emissions-nature, in comparison to the technologically leading developed countries, whose growth will take a rather low emission pathway, thanks to technological innovations.¹³⁰

2.3. **The concepts of developing countries and developed countries regarding the international climate change diplomacy**

For one reason or the other, the international climate change law and governance process often faced dramatic challenges in the last two decades.¹³¹ Among those reasons, Gupta¹³² identifies the uneven and unpredictable character of the issue of costs and the benefits distribution associated with climate change at a global level, and also the question regarding to how the climate change responsibilities between countries are being shared, compared to how they should be.¹³³ The above reasons evoked by Gupta are both linked with another bigger question concerning the inequalities that characterise the developing and the developed countries, in terms of their levels of socio-economic development, although the literature hardly agrees on the criteria used for such a differentiation. According to Nielsen,¹³⁴ there is no differential criterion which is currently generally accepted.

The UNFCCC does not provide a definition of what constitutes developed or developing countries, but rather adopts and applies the ambient concept of developed and developing countries.¹³⁵ Nevertheless, in the present study, it is presumed that any reference to “developing country” or “developed country” by the Paris Agreement is to be envisaged in the sense of countries that are either “Non-Annex I” or “Annex I” and “Annex II” under the UNFCCC. The fact is that the Paris Agreement avoided to

¹³⁰ M. Jakob *et al* ‘Will history repeat itself? Economic convergence and convergence in energy use patterns’ (2012) 34 *Energy Economics* 95 99.

¹³¹ J. GUPTA ‘International law and climate change: The challenges facing developing countries’ (2006) 16 1 *Yearbook of Inter. Env. Law* 119 119.

¹³² *Ibid.*

¹³³ *Ibid.*

¹³⁴ L. Nielsen ‘Classifications of countries based on their level of development: How it is done and how it could be done’ *IMF Working Papers* (2011) at 4. Available at: <http://ssrn.com/abstract=1755448>. (Accessed: 01 June 2016).

¹³⁵ Ambient definition of developing and developed countries Refers either to the WB, MIF or the UNDP definition.

undertake at present a pre-classification of countries parties as was done by the UNFCCC.¹³⁶

At the international level, the distinction that is commonly made between “developing” and “developed” countries follows three major schools of classifications which are:

- The International Monetary Fund Classification (IMF);
- The United Nations Development Programme Classification (UNDP);
- The World Bank Classification (WB).

These three schools of classification do not use a similar criteria to differentiate between developing and developed countries.¹³⁷ The World Bank and the IMF utilise either an operational country classification system or an analytical classification system, which draw to the operational system.¹³⁸ The operational country classification of the Word bank initially established an income threshold in 1964 which was upgraded later, as a test for eligibility to access IDA resources.¹³⁹ Whereas the operational country classification of the IMF operates as a concessional facility expanded, refocused, and renamed over the years, with currently a new framework for the determination of the Poverty Reduction and Growth Trust based on criteria relating to per capita income, market access, and vulnerability. Since 2010, 71 countries were recognised by the Fund to be “low income developing countries on the basis of the above framework.”¹⁴⁰

Under its analytical classification system, the World Bank introduced the first economic classification of countries which divided them into three categories: (i) developing countries, (ii) industrialised countries, and (iii) capital-surplus oil-exporting countries. On the other hand, in the World Bank report, developing countries were categorised as low income (with GNI/n of US\$250 or less) and middle income (with GNI/n above

¹³⁶ The UNFCCC also did plan for countries evolution over time, but the system did not work, and countries ended up being stuck in one or the other annex. See Article 4.2 (f) of the UNFCCC.

¹³⁷ Nielsen (note 134 above; 8).

¹³⁸ Nielsen (note 134 above; 14).

¹³⁹ ‘The threshold was initially set at an annual per capita income level of US\$250, but throughout the 1960s the threshold was not rigidly adhered to as several countries with income levels of up to US\$300 accessed IDA resources.’ See Nielsen (note 134 above; 10).

¹⁴⁰ Nielsen (note 134 above; 16).

US\$250). For the World Bank, the threshold between developed and developing countries is a per capita income level of US 6,000 according to the 1987 prices.¹⁴¹

The IMF analytical classification system introduced in 1980 a significantly simplified two category classification system consisting of (i) industrial countries and (ii) developing countries.¹⁴² The system was adopted from the International Financial Statistics (IFS),¹⁴³ although the IFS never motivated the choice of the classification systems it used.

The UNDP's country classification system as noticed by Nielsen,¹⁴⁴

“is built around the Human Development Index (HDI),¹⁴⁵ which was launched for the first time together with the Human Development Report (HDR) in 1990.”

However, Nielsen¹⁴⁶ concluded on the fact that the three above classification systems failed to offer enough clarity regarding how they did categorise the different countries. The World Bank for instance, failed to explain why the threshold between developing and developed countries is a per capita income level of US\$6,000 in 1987-prices, whereas the threshold used for the IMF's classification remained unclear, and the UNDP on its side gave no rationale to explain why the ratio of developing and developed countries is one to three.^{146a}

¹⁴¹ *Ibid.* GNI/n refers to Gross National Income per capita. It was used for purpose of income measure in the 2010 Human Development Report of the United Nations Development Programme. See Nielsen (note 134 above; 8).

¹⁴² The IMF published for the first time its World Economic Outlook (WEO). In support of the analysis, the WEO utilized the country classification system used in the IFS. See Nielsen (note 134 above; 16).

¹⁴³ Information available at: <http://stats.ukdataservice.ac.uk/Index.aspx?DataSetCode=ifs>. (Accessed: 10 October 2016).

¹⁴⁴ *Ibid.*

¹⁴⁵ “The HDI is a composite index of three indices measuring countries' achievements in longevity, education, and income. Other aspects of development such as political freedom and personal security were also recognised as important, but the lack of data prevented their inclusion into the HDI.” See note 147 below, see also Nielsen (note 134 above; 8).

¹⁴⁶ *Ibid* at 41.

^{146a} *Ibid.*

Table 1 below illustrates how the above three different classifications are influential to positioning a country as a developed or a developing country, depending on the institution which applies its criteria.

Table 1: Synoptic presentation of the IMF, UNDP and the World Bank development criteria

CRITERIA	IMF	UNDP	WORLD BANK
Country X, Y, or Z	Advanced countries	Developed countries	High Income Countries
Country X, Y, or Z	Emerging countries + Developing countries	Developing countries	Low and Middle income countries
Development threshold	Not explicit	75 percentile in the HDI ¹⁴⁷ distribution	US\$ 6000 GNI ¹⁴⁸ per capita in 1987 prices
% of developed Countries in 1990	13%	25%	16%
% of developed Countries in 2010	17%	25%	26%

Source: Our own synthesis based on data provided by Nielsen (see note 134 above).

In the above table, there seems to be more developed countries in 2010 comparatively to 1990, based on the approaches of the IMF and the World Bank, whilst the UNDP approach shows that the situation of developing countries has not significantly evolved since 1990 levels, and that consequently, their number is still the same in 2010 comparatively to 1990.¹⁴⁹ This ambiguity is arguably going to upset the newly adopted climate change regime because of the lack of any definition of what constitutes developing and developed countries, although the regime has granted developing

¹⁴⁷ ‘HDI stands for Human Development Index. ‘The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions. The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone.’ Information available at: <http://hdr.undp.org/en/content/human-development-index-hdi>. (Accessed: 20 October 2016).

¹⁴⁸ ‘GNI stands for Gross National Income. GNI per capita - Gross national income (GNI) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI per capita is gross national income divided by mid-year population. GNI per capita in US dollars is converted using the World Bank Atlas method. Information available at: http://www.unicef.org/infobycountry/stats_popup7.html (Accessed: 20 October 2016).

¹⁴⁹ Nielsen (note 134 above; 11).

countries some few preferential treatments owing to their particular vulnerability towards climate change.

However, as also postulated by Pauwelyn,¹⁵⁰ the issue in today's context is minus that of insuring whether China or Russia are developing countries, but rather finding out relevant criteria to differentiate between the two countries in the sense of defining their individual and respective responsibilities towards climate change. The same also applies in differentiating between other individual countries within both groups of developed and developing countries.

However, being a global threat, the climate change problem needed to be approached in a global manner, every country bringing in its contribution towards solving the problem. The 1992 UNFCCC was adopted as a multilateral legal instrument whose objective was to frame the fight against climate change.¹⁵¹ The result was that the UNFCCC instituted a two-speed climate change regime, with developing countries committed differently than developed countries.¹⁵²

2.4. The Common But Differentiated Responsibilities and Respective Capabilities Principle and the climate change regime

2.4.1. Enunciation of the principle

The notion of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC) is a key notion in the international negotiations under the UNFCCC.¹⁵³ The Preamble of the UNFCCC acknowledges that the global nature of climate change calls

¹⁵⁰ J. Pauwelyn 'The end of differential treatment for developing countries? Lessons from the trade and climate change regimes' (2013) 22 *1 Review of European, Comp. & Intern. Environ. Law* 29 at 29.

¹⁵¹ Gupta (note 130 above; 1).

¹⁵² See section 3.1.2 for more details on the regime under the UNFCCC.

¹⁵³ P. Pauw *et al* 'Different perspectives on differentiated responsibilities: a state-of-the-art review of the notion of common but differentiated responsibilities in international negotiations' (2014) at 1. Available at : https://www.die-gdi.de/uploads/media/DP_6.2014..pdf (Accessed: 18 September 2016); A. Shawkat *et al* *Routledge Handbook of International Environmental Law* (2013) at 55; E. Louka *International Environmental Law: Fairness, Effectiveness, and World Order* (2006) at 54; H. Winkler & L. Rajamani (b) 'CBRD in a regime applicable to all' (2014) 14 (1) *Climate Policy* 102 at 102; J. Brunnée & C. Streck (a) 'The UNFCCC as a negotiation forum: Towards Common But more Differentiated Responsibilities' (2013) 13 (5) *Climate Policy* 589 at 590.

for the widest possible co-operation by all countries, and also their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions,¹⁵⁴ whereas its Article 3.1 exhorts country parties to 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.

The CBDR-RC is a concept in the international climate regime that is derived from the principle of CBDR.¹⁵⁵ The “CBDR-RC” formulation of the principle Annexes to its “CBDR” initial formulation one more element which is the “Respective Capabilities” of countries (RC).¹⁵⁶ CBDR can be understood as a way of outlining the proportional environmental obligations that countries have, compared to others, in all justness.¹⁵⁷ The notion of CBDR is underpinned by the two meta-principles of equity and fairness, which are often used interchangeably.¹⁵⁸ Fairness refers to, the ability to decide on what is just and what is not, while Equity is a mode of interpretation of the legal norms, as well as a palliative principle in a context of shortcomings of positive law.¹⁵⁹ As argued by Hallding,¹⁶⁰ countries perceptions of fairness and equity are based on their respective backgrounds, and on their particular economic and social circumstances.

Deconstructing the CBDR principle into its two main sub-concepts can assist in understanding its application in the international climate change regime.¹⁶¹ First, the sub-concept of “common responsibilities”, which requires all states to participate in the

¹⁵⁴ Preamble of the UNFCCC.

¹⁵⁵ Mbeva (note 19 above; 5).

¹⁵⁶ The concept of countries’ Respective Capability was already present in Article 7.2 (C), Article 3.1 and the preamble of the UNFCCC. It was further reaffirmed as a criteria for any new climate change international treaty by the USA and China’s joint statement on climate change, released at Beijing, China on the 12th November 2014. Statement available at: <https://www.whitehouse.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change>. (Accessed: 15 September 2016).

¹⁵⁷ Pauw (note 153 above; 1).

¹⁵⁸ *Ibid* at 5.

¹⁵⁹ D. Carreau & F. Marrella ‘Chapitre XIV ‘l’Equité’ en Droit international’ 11 Ed. (2012) at 1. Available at: http://www.pedone.info/di/Carreau-Marrella_Chap14.pdf. (Accessed: 15 August 2016).

¹⁶⁰ K. Hallding *et al* ‘Together alone: BASIC countries and the climate change conundrum’ (2011). Available at:

<http://www.norden.org/en/publications/publikationer/2011-530> (Accessed: 12 September 2016).

¹⁶¹ T. Honkonen ‘The Common But Differentiated Responsibility Principle in multilateral environmental agreements: regulatory and policy aspects’ *KLI* (2009) at 1.

global effort of addressing climate change, given the fact that climate change is a global problem that equally requires a global solution.¹⁶² Second, the sub-concept of “differentiated responsibilities” which relates to the idea that states should have differential obligations while addressing climate change depending on their respective national capacities, and their specific development needs, as well as their historical contribution towards the climate change problem.¹⁶³

2.4.2. Origins of the principle

The CBDR principle originally emerged from the application of equity in international environmental law.¹⁶⁴ Even though the concept of differential treatment of states existed for long in international instruments,¹⁶⁵ some of the conceptual elements that are directly behind the CBDR principle were traced back only in the 1970s, at the time of the call for a “new international economic order”.¹⁶⁶ They are also found at the UN Conference on the Human Environment in 1972 held in Stockholm,¹⁶⁷ and in the enabling clause of the General Agreement on Tariffs and Trade in 1979.¹⁶⁸ Within the environment field, the 1989 Montreal Protocol, under the Vienna Convention for the Protection of the

¹⁶² *Ibid.*

¹⁶³ *Ibid.*

¹⁶⁴ Mbeva (note 19 above; 5).

¹⁶⁵ See for instance the Constitution of the International Labour Organization (ILO) (“Differences of climate, habits and customs, of economic opportunity and industrial tradition, make strict uniformity in the conditions of labour difficult for immediate attainment.”) Cited by J. Lee (note 33 above; 30).

¹⁶⁶ Resolution A/Res/S-6/ 3201 stating a Declaration on the Establishment of a New International Economic Order under the United Nations Organisation, available at: <http://www.un-documents.net/s6r3201.htm>.

(Accessed: 25 October 2016).

¹⁶⁷ Information on the 1972 Stockholm Human Environment Conference available at: <http://www.unep.org/documents.multilingual/default.asp?documentid=97&articleid=1503>. (Accessed: 25 October 2016).

¹⁶⁸ ‘The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. Its goal is to help producers of goods and services, exporters, and importers conduct their business. At its heart are the WTO agreements, negotiated and signed by the bulk of the world’s trading nations and ratified in their parliaments.’ More details on the WTO available at: https://www.wto.org/english/thewto_e/whatis_e/whatis_e.htm. (Accessed: 10 October 2016); ‘Decision L/4903 of 28 November 1979 by signatories to the General Agreement on Tariffs and Trade (GATT) allows derogations to the most-favoured nation (non-discrimination) treatment in favour of developing countries. Its paragraph 2(c) permits preferential arrangements among developing countries in goods trade. This provision has continued to apply as part of GATT 1994 under the WTO. Information available at:

https://www.wto.org/english/docs_e/legal_e/enabling1979_e.htm. (Accessed: 23 October 2016); See also Pauw (note 153 above; 1).

Ozone Layer, offered one of the first early and outstanding illustrations regarding the implementation of CBDR in an international context.¹⁶⁹

It was not until 1992 that the principle was finally recognised as an international principle, due to its adoption as principle 7 in the Rio Declaration at the 1992 United Nations Conference on Environment and Development (UNCED).¹⁷⁰ The UNFCCC adopted the CBDR principle as one of the key principles to govern the implementation of the climate change regime it had instituted. Article 3.1 of the UNFCCC states that the parties should protect the climate system for the benefit of present and future generations of humankind, based on equity and in accordance with their common but differentiated responsibilities and respective capabilities, adding that the developed country parties should take the lead in combating climate change and the adverse effects thereof because of the aforementioned.¹⁷¹

The application of the CBDR in the UNFCCC climate change regime led to a dichotomous approach for the share of the climate change responsibilities between the developed countries parties and the developing countries parties. Under the UNFCCC, developed countries are identified as “Annex I countries” and developing countries are identified as “Non-Annex I countries”.¹⁷² Annex I countries were in 1992 member states of the Organisation for Economic Co-operation and Development (OECD), along with some few additional states undergoing the process of transition to a market economy.¹⁷³ On the view of Pauw,¹⁷⁴ the UNFCCC bilateral differentiation was a reflection of the economic welfare of countries in the context of 1992, based on the Gross Domestic Product (GDP) per capita.

¹⁶⁹ The 1985 Vienna Convention does not refer to CBDR as such. However, it addresses the issue of different responsibilities that different countries need to take on them in accordance with their capabilities to regulate the emission of ozone-depleting substances. For instance, countries had different base years regarding the commitment to phase-out their ozone depleting substances; to developing countries it was accorded delayed compliances if their per capita consumption of certain controlled substances was below a certain threshold; See section 3.1.1.2 for more details on the 1985 Vienna Convention and its 1987 Montreal Protocol; See also Pauw (note 153 above; 1).

¹⁷⁰ Conference held from 3 – 14 June 1992 under the aegis of the UN. Report on the conference (entitled: “Declaration of the United Nations Conference on the Human Environment”) available at: <http://www.un.org/geninfo/bp/enviro.html> (Accessed: 16 July 2016).

¹⁷¹ Article 3.1 of the UNFCCC.

¹⁷² *Ibid* Article 4.

¹⁷³ See section 2.1.2 note 126 above for more details on the OECD organisation.

¹⁷⁴ Pauw (note 153 above; 17-18).

It was without surprise that subsequent decisions under the UNFCCC adopted the Convention's approach of differentiating among member states.¹⁷⁵ This was the case for the 1997 Kyoto Protocol which was the first protocol to be adopted under the UNFCCC. The Kyoto Protocol prescribed the legally binding emission reductions for developed countries (Annex I parties), while developing countries (Non-Annex I parties) were not assigned any reduction obligation.¹⁷⁶

The interpretation that countries had on the CBDR in 1992 made it easy for them to agree on the UNFCCC climate change regime. Yet, thereafter the same CBDR interpretation by countries became a source of considerable obstacles for countries to keep their commitments.¹⁷⁷ Negotiating countries had recurring discussions regarding a new approach for the application of the CBDR principle for the period post Kyoto.¹⁷⁸ Pauw¹⁷⁹ argued that the differential approach applied by the UNFCCC became very controversial because it left massive emissions increasingly unregulated from major emitting developing countries such as China, India, Brazil and South Africa, which are now all among the world's largest GHG polluters.

However, the difficulty in addressing climate change under the UNFCCC interpretation of the CBDR principle became clear in this way: any efforts that were deployed by developed countries under their Kyoto legally binding obligation to reduce GHG emissions were felt to have a great chance of being offset by the quickly increasing GHG emissions of unregulated major developing countries emitters.¹⁸⁰ This undisputable failure led to the question about the utility and legitimacy of the CBDR principle as interpreted and applied under the UNFCCC to be the international climate regime guiding principle in an attempt to address the challenge of climate change by way of mitigating the global GHG emissions.¹⁸¹ However, scholars such as Bortscheller¹⁸²

¹⁷⁵ See Articles 2 and 4 of the UNFCCC.

¹⁷⁶ See Articles 3 and 4 of the 1997 Kyoto Protocol for more details.

¹⁷⁷ Pauw (note 153 above; 23-24).

¹⁷⁸ *Ibid.*

¹⁷⁹ *Ibid.*

¹⁸⁰ *Ibid* Pauw; Lee (note 33 above; 30).

¹⁸¹ C.D. Stone 'Common but Differentiated Responsibilities in International Law' (2004) 98 *AJINTL* 276 at 280

¹⁸² MJ. Bortscheller 'Equitable but Ineffective: How the Principle of Common But Differentiated Responsibilities Hobbles the Global Fight Against Climate Change' (2010) 49 *Sus. Dev. L & Pol'* Y 49 at 49.

argued that the CBDR was a sound principle that the international environment community has failed to apply correctly in the climate change field.

The thing is, from a conceptual perspective, the CBDR principle was not conceived to be a static principle, but rather as a dynamic one. Its vocation was to accommodate countries respective circumstances in any issue of common or global interest as it was the case for environmental concerns in the seventies.¹⁸³ That is why, depending on the issue that is the focus of a treaty, and on the objective of a treaty, the CBDR principle has been applied diversely by different multilateral environmental agreements over the years.

2.4.3. Application of the CBDR principle by neighbor Multilateral Environmental Agreements

In the international environmental law, there are many treaties other than the climate change ones that apply a regime of differential treatment between country parties.¹⁸⁴ In this section, the researcher will discuss the application of the CBDR principle under two major multilateral environmental agreements. The first is the 1987 Montreal Protocol to the Vienna Convention on ozone depleting substances, and the second is the Convention on Biological Diversity (CBD). The Montreal Protocol is considered because of its influential role in the UNFCCC/Kyoto protocol regime.¹⁸⁵ Whereas the CBD is envisaged from an historical view point, because it was negotiated and adopted almost simultaneously with the UNFCCC.¹⁸⁶ The Montreal Protocol has made a huge contribution to limit the climate change threat by accelerating the phase out of chlorofluorocarbon and other ozone depleting substances.¹⁸⁷ As also argued by Depledge and Yamin,¹⁸⁸ the acknowledgement of the global problem of ozone layer

¹⁸³ See principle 7 of the Rio declaration which relates to the CBDR Principle.

¹⁸⁴ The 1992 Convention on Biological Diversity (CBD) and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.

¹⁸⁵ The Montreal Protocol is referred to as much as eleven times in the UNFCCC.

¹⁸⁶ The CBD and the UNFCCC were both adopted in 1992.

¹⁸⁷ Velders (note 52 above; 4814).

¹⁸⁸ J. Depledge & F. Yamin ‘The global climate change regime: a defence’ in: D. Helm & C. Hepburn (eds.) *The economics and politics of climate change* (2009) 433 at 435.

depletion through the Vienna Convention and its 1987 Montreal Protocol did strongly influence the regime design of climate change.

2.4.3.1. The 1992 Convention on Biological Diversity (CBD)

The CBD is the key Convention regarding the terrestrial biological diversity, despite the adoption of many other biodiversity-related conventions and agreements worldwide.¹⁸⁹ The CBD got 196 country parties, among which 168 signatories.¹⁹⁰ The main objective of the CBD is the conservation of biological diversity.¹⁹¹ Apart from the climate change phenomenon, the loss of biodiversity is arguably the most pressing global environmental problem of an anthropogenic origin, with land use change being its main driver.¹⁹² The CBD is further complemented by two protocols which are the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising

¹⁸⁹ ‘The UNEP convened the Ad Hoc Working Group of Experts on Biological Diversity in November 1988 to explore the need for an international convention on biological diversity. In May 1989, it established the Ad Hoc Working Group (AWG) of Technical and Legal Experts to prepare an international legal instrument for the conservation and sustainable use of biological diversity. The experts were to take into account “the need to share costs and benefits between developed and developing countries” as well as “ways and means to support innovation by local people”. By February 1991, the AWG had become known as the Intergovernmental Negotiating Committee. Its work culminated on 22 May 1992 with the Nairobi Conference for the Adoption of the Agreed Text of the CBD, opened for signatures on 5 June 1992 at the Rio “Earth Summit” until 4 June 1993, and received 168 signatures. It entered into force on 29 December 1993, the 90th day after the 30th ratification.’ Information available at: <https://www.cbd.int/history/> (Accessed: 15 September 2016); see also Pauw (note 153 above; 31).

¹⁹⁰ List of CBD parties available at: <https://www.cbd.int/information/parties.shtml>. (Accessed: 1 May 2016).

¹⁹¹ Article 1 of the Convention on Biological Diversity (CBD) provides: ‘The objectives of this Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.’

¹⁹² Pauw (note 153 above; 31).

from their Utilisation,¹⁹³ and the Cartagena Protocol on biosafety.¹⁹⁴ Both protocols ‘institutionalise’ the Convention’s approach to equity and differentiation.¹⁹⁵

Even though the Convention on Biological Diversity does not explicitly mention the CBDR principle in its body text, it is nevertheless implicitly acknowledged and manifested throughout the Convention and its protocols.¹⁹⁶ The CBD’s preamble stipulates that the conservation of biodiversity is a common concern for humankind, but it also reaffirms states’ sovereign rights over their own biological resources, its Article 3 stipulates that states have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies. Therefore, Article 3 implicitly refers to the CBDR principle if it is assumed that the CBDR is one of the principles under international law.

The CBD stipulates that the, ‘Conservation of biological diversity is a common concern for humankind’.¹⁹⁷ Under the CBD, country parties have symmetrical legal obligations that have automatically different effects.¹⁹⁸ While the conservation of biological diversity and the sustainable use of its components apply to all parties, the obligation to facilitate access to genetic resources is in charge of the host states, in which most of the cases are developing states with a rich genetic potential and biological diversity.¹⁹⁹

¹⁹³ ‘At the tenth Conference of the Parties, held in Nagoya, Japan, in October 2010, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization was adopted.’ Information available at: <https://www.cbd.int/undb/media/factsheets/undb-factsheet-nagoya-en.pdf>. (Accessed: 20 September 2016); text of the Nagoya Protocol available at: <https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf>. (Accessed: 20 September 2016).

¹⁹⁴ ‘The Cartagena Protocol on Bio safety to the Convention on Biological Diversity is an international agreement which aims at ensuring the safe handling, transport and use of Living Modified Organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health. It was adopted on 29 January 2000 and entered into force on 11 September 2003.’ Text of the Cartagena Protocol available at: <https://www.cbd.int/doc/legal/cartagena-protocol-en.pdf>. (Accessed: 12 September 2016).

¹⁹⁵ C. Voigt ‘Equity in the 2015 Climate Agreement: Lessons from Differential Treatment in Multilateral Environmental Agreements’ (2014) 4 *Climate Law* 50 at 61; Available at SSRN: <http://dx.doi.org/10.2139/ssrn.2637840> (Accessed: 10 August 2016).

¹⁹⁶ Pauw (note 153 above; 31).

¹⁹⁷ See the preamble of the CBD.

¹⁹⁸ Voigt (note 195 above; 61).

¹⁹⁹ *Ibid.*

As for the issue of differentiated responsibilities, the CBD has built a simple structure: Developing countries have to protect biodiversity, but developed countries have to pay for it.²⁰⁰

According to Article 20 which provides for the financial resources, the developed country parties shall provide new and additional financial resources to enable developing country parties to meet the agreed full incremental costs for them to implement measures which fulfil the obligations of this Convention, and also to benefit from its provisions.²⁰¹ The implementation by developing country parties of their commitments is conditioned (the CBD uses the formula ‘will depend on’) on the effective fulfilment by developed countries of their financial and technology transfer commitments.²⁰²

Obligations regarding conservation and sustainable use of biological resources by country parties are qualified by terms such as ‘in accordance with its particular conditions and capabilities’²⁰³ or ‘as far as possible and as appropriate’.²⁰⁴ These provisions are examples of contextual differentiation between country parties to the treaty. Only that the differentiation applied leaves it up to the discretion of each party to adopt its own level of obligations in accordance with its particular circumstances. Furthermore, the specific needs of developing countries are explicitly recognised under Article 12 of the CBD regarding scientific and technical education, research, and training.²⁰⁵

2.4.3.2. Application of the CBDR principle under the 1987 Montreal Protocol

Neither the 1985 Vienna Convention for the Protection of the Ozone Layer, nor the 1987 Montreal Protocol use the wording of CBDR as known in the climate change regime.²⁰⁶ The reason arguably is because they were adopted before the emergence of the CBDR

²⁰⁰ For the List of developed-country parties and other parties which voluntarily assume the obligations of developed country parties, see COP 1 Decision I/2, Financial Resources and Mechanism, Annex II.

²⁰¹ Article 20 (2) of the CBD.

²⁰² *Ibid* Article 20 (4).

²⁰³ *Ibid* Article 6 (a).

²⁰⁴ *Ibid* Article 6 (b), 7, 8, 9, 10, 11 and 14.

²⁰⁵ *Ibid* Article 12.

²⁰⁶ Pauw (note 153 above; 42).

as an explicit concept in the international law, in 1992.²⁰⁷ However, country parties to the ozone regime opted for a temporal differentiation regime,²⁰⁸ and from 1992 onwards, after the adoption of the CBDR principle in the Rio Declaration, meetings of the parties to the Montreal Protocol started referring to the CBDR principle as a way to express the differentiation approach that was already put in place in the treaty.²⁰⁹

Article 2 of the 1985 Vienna Convention provides that country parties shall take appropriate measures in order to protect human health and the environment against adverse effects resulting or likely to result from the ozone depletion phenomenon in accordance with the means at their disposal and their capabilities.²¹⁰ Article 5 of the Montreal Protocol on “special situation of developing countries” does include special rights for developing countries whose annual calculated level of consumption of listed controlled substances by the protocol is less than 0.3 kilograms per capita, on the date of the entry into force of the protocol.²¹¹ Those countries are allowed to postpone their statutory compliance to phase out the consumption and production of ozone depleting substances for up to ten years.²¹² During that period countries that benefited from the exemption of Article 5 of the Montreal Protocol were allowed to make use or even increase their national use of the ozone depleting substance.²¹³

The purpose of granting to that special category of developing countries a whole grace period for the implementation of the Protocol was to allow them as well to meet their basic domestic needs and prepare themselves before a total phase out of the ozone

²⁰⁷ *Ibid.*

²⁰⁸ Article 5.1 of the Montreal Protocol provides as follows: ‘Any Party that is a developing country and whose annual calculated level of consumption of the controlled substances in Annex A is less than 0.3 kilograms per capita on the date of the entry into force of the Protocol for it, or any time thereafter until 1 January 1999, shall, in order to meet its basic domestic needs, be entitled to delay for ten years its compliance with the control measures set out in Articles 2A to 2E, provided that any further amendments to the adjustments or Amendment adopted at the Second Meeting of the Parties in London, 29 June 1990, shall apply to the Parties operating under this paragraph after the review provided for in paragraph 8 of this Article has taken place and shall be based on the conclusions of that review’; Voigt (note 195 above; 56).

²⁰⁹ T. Deleuil ‘The Common But Differentiated Responsibilities Principle: changes in continuity after the Durban Conference of the Parties’ (2012) 21 (3) *RECom. & INTENV Law* 271 at 273; Pauw (note 153 above; 42-44).

²¹⁰ Article 2 of the 1985 Vienna Convention.

²¹¹ Article 5.1 of the Montreal Protocol; see also Voigt (note 195 above; 56).

²¹² *Ibid* Montreal Protocol Article 5.

²¹³ Voigt (note 195 above; 56).

depleting substances.²¹⁴ In addition to Article 5 which provides for a differential treatment which is in favour of developing countries, Article 10 contains the obligation for industrialised parties to provide ‘financial and technical co-operation, including transfer of chlorofluorocarbon-free technology to developing countries in order to enable them comply with the statutory control measures.²¹⁵ Article 10 further creates a financial mechanism, including a Multilateral Fund from developed countries, whose financial obligations are the condition for developing countries’ actions towards an effective implementation of the Convention.²¹⁶

The CBDR principle under the Montreal Protocol suffered a reproach as only 24 countries and the European Commission signed the Montreal Protocol in 1987. This number included virtually all developed countries,²¹⁷ which accounted for the bulk of CFCs production, but they included few of the major developing countries with rapidly emerging economies, such as India and China.²¹⁸ These two countries refused to participate in the Protocol until the establishment of the fund to help developing countries find and implement alternatives to CFCs.²¹⁹ As early as at that time, the differences between the developed and the developing countries were perceived as the main obstacle to the effective implementation of the Differentiated responsibilities approach under the Montreal Protocol.²²⁰ The Montreal Protocol is currently considered as a reference in the global environmental negotiations because it has successfully reduced the global production, consumption and emissions of ozone depleting substances.²²¹ The reason why on the view of Ladly²²² the Montreal Protocol constituted an early and significant example of how the principle of CBDR could be operationalised.

²¹⁴ *Ibid.*

²¹⁵ Article 10 of the Montreal Protocol. Chlorofluorocarbon also referred to as CFCs.

²¹⁶ Voigt (note 195 above; 56).

²¹⁷ Pauw (note 153 above; 42).

²¹⁸ R. J. Smith ‘The road to a climate change agreement runs through Montreal’ (2010) Washington, DC: Peter G. Peterson Institute for International Economics (Policy Brief) 10-21 at 11; Pauw (note 153 above; 41).

²¹⁹ Pauw (note 153 above; 42).

²²⁰ J. Wettestad ‘The Vienna Convention and Montreal Protocol on ozone-layer depletion’ in: E. L. Miles *et al* *Explaining regime effectiveness: confronting theory with evidence* (2002) 149 at 170; Pauw (note 153 above; 44).

²²¹ Velders (note 52 above; 4815); Smith (note 218 above; 11).

²²² S.D. Ladly ‘Border carbon adjustments, WTO-law and the Principle of Common But Differentiated Responsibilities’ (2012) 12 *Int. Env. Agr.* 63 65; Pauw (note 153 above; 44).

2.4.4. The interpretation of the CBDR principle by the UNFCCC Key negotiating parties

On the view of Hallding,²²³ countries differently perceive and interpret the notions of equity and fairness, which are the core concepts that form the CBDR principle. They do so on the basis of their own specific backgrounds and their particular economic and social circumstances.²²⁴ This section provides an overview of the positions that were adopted and defended by some key country parties and some negotiation groups under the UNFCCC regarding the CBDR principle before the adoption of the 2015 Paris Agreement. The exercise has the merit of helping us understand some of the stances of the key countries during the climate change negotiation rounds under subsequent COPs. In one hand, parties such as the United States of America and the European Union are considered, giving us an idea about the view point of developed country parties, while on the other hand, we envisage the positions of emerging developing countries such as China, India, Brazil, and South Africa, in order to get an idea about the perception of developing countries on the matter under analysis.²²⁵

2.4.4.1. The Republic of China

In the 1990s, China, through its Premier Minister Li Peng indicated that for any country, economic development had precedence over environmental protection, and that developed countries had the responsibility to provide financial resources and technology to compensate developing countries for climate change.²²⁶ China considered emission mitigation the responsibility of developed countries and has repeatedly insisted for fairness and equity whilst abstaining from making any commitment to reduce its emissions.²²⁷ China strategically employed the principle of CBDR to crystallise climate change as a “North-South issue”.²²⁸

²²³ Hallbing (note 160 above; 85-89).

²²⁴ *Ibid.*

²²⁵ *Ibid.*

²²⁶ P. Stalley ‘Forum: principled strategy: the role of equity norms in China’s climate change diplomacy’ (2013) 13 (1) *Global Environmental Politics* 1 at 1.

²²⁷ *Ibid.*

²²⁸ *Ibid.*

2.4.4.2. The Republic of India

Advocating for the CBDR principle, the country resisted pressure from developed countries that developing countries should accept incorporating mitigation actions.²²⁹ The country is known as a long “glued to a do-nothing position”²³⁰ in the climate change diplomacy. However, a change in the country’s position was first noticed in 2008, at the release of its National Action Plan on Climate Change,²³¹ before it announced in 2009 in Copenhagen its adoption of voluntary targets to reduce the country’s emissions for 20–25 per cent by 2020 from the 2005 levels, showing by that a considerable move in its interpretation of the CBDR principle.²³²

2.4.4.3. South Africa

Despite its BASIC group membership,²³³ South Africa has a more flexible approach in interpreting the CBDR principle and its own specific climate change position, because of its distinct national background.²³⁴ During the UNFCCC negotiations, the country often acts like a “bridge builder” among parties of the G77, and between developing and industrialised states.²³⁵ At the COP 17 in Durban, the country showed itself favourable to a new universal legally binding agreement with differentiated commitments for parties.²³⁶ Prior to Copenhagen in 2009, the country announced to commit itself to a voluntary emission reduction target scheme of 34 percent below the Business As Usual

²²⁹ D. Raghunandan ‘India’s climate policy: squaring the circle’ (2012) 43 *IDS Bulletin* 122 122.

²³⁰ *Ibid* at 126.

²³¹ P. Rastogi ‘India’s evolving climate change strategy’ in: E.J. Hollo *et al* (Eds.) *Climate change and the law: jus gentium: comparative perspectives on law and justice* (2013) 605 at 605. Available at: http://link.springer.com/chapter/10.1007/978-94-007-5440-9_27. (Accessed: 28 July 2016).

²³² Pauw (note 153 above; 26).

²³³ The BASIC Group is a climate change negotiating group within the frame of the UNFCCC which comprises some of the key emerging economies from developing countries that are Brazil, South Africa, China and India. Information available at: http://unfccc.int/parties_and_observers/parties/negotiating_groups/items/2714.php. (Accessed: 12 August 2016).

²³⁴ B. Never ‘Who drives change?: comparing the evolution of domestic climate governance in India and South Africa’ (2012) 21 (3) *The JEDARINT Pol.* 362 at 363.

²³⁵ Hallding (note 160 above; 54).

²³⁶ L. Rajamani (b) ‘The changing fortunes of differential treatment in the evolution of international environmental law’ (2012) 88 (3) *International Affairs* 605 at 623.

(BAU) pathway by 2020,²³⁷ but suffered the opposition from some developing countries, arguing that such unilateral commitment was a breach of the CBDR-RC principle.²³⁸

2.4.4.4. The United States

The country is known to be the major critic of the Kyoto Protocol.²³⁹ In 1997, the US Senate adopted the Byrd-Hagel Resolution,²⁴⁰ which stated that the country would not participate in a climate change agreement which does not comprise binding emission reduction targets for developing countries.²⁴¹ The main argument was that the Kyoto protocol was built on the CBDR principle, meaning that developing countries were exempted from binding targets, which would lead to unfair economic disadvantages towards developed countries, in favour of developing countries, especially those that are regarded as the new emerging economies.²⁴² The USA further argued that the lion's share of future emissions growth would be taken by developing countries, whereas their emissions were not controlled under the UNFCCC/Kyoto climate change regime.²⁴³ The position of the USA opened a fault line in-between the country and the group of developing countries, especially China, due to what the USA government perceived to be an unfair agreement because of an erroneous application of the CBDR principle.²⁴⁴

During the climate change negotiations, the United States constantly argued that developing countries should take on more emissions mitigation responsibilities as they

²³⁷ South Africa did so on the condition that country parties may adopt a new global climate change agreement, and that the country may benefit of an international support for the implementation of that new global treaty. See C. Death ‘Leading by example: South African foreign policy and global environmental politics’ (2011) 25 (4) *International Relations* 455 at 464.

²³⁸ Rajamani (b) (note 236 above; 619-620).

²³⁹ J. Depledge ‘Against the grain: the United States and the global climate change regime.’ (2005) 17 (1) *GCP&S* p. 11 at 22.

²⁴⁰ The “Byrd-Hagel Resolution” is a USA’s senate resolution expressing the sense of the senate regarding the conditions for the United States becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations Framework Convention on Climate Change. Information available at: <https://www.congress.gov/bill/105th-congress/senate-resolution/98/text>. (Accessed: 28 September 2016).

²⁴¹ R. Eckersley ‘Understanding the interplay between the climate and trade regimes’ in United Nations Environment Programme (ed.) *Climate and trade policies in a post-2012 world* (2009) 11 at 11.

²⁴² P.G. Harris & J. Symons ‘Norm conflict in climate governance: greenhouse gas accounting and the problem of consumption’ (2013) 13 (1) *GEP* 9 at 20; see also C.P. Carlarne ‘The Kyoto protocol & the WTO: reconciling tensions between free trade & environmental objectives.’ (2006) 17 (1) Colo. J. Int’l Envtl. L. & Pol’y. 46 at 63.

²⁴³ *Ibid* Harris.

²⁴⁴ *Ibid*.

economically evolved over time.²⁴⁵ The country called for a more nuanced interpretation of the CBDR and respective capabilities.²⁴⁶ In the draft decision of the Durban Platform, no reference was made to the Equity and CBDR-RC principles, partly because of the opposition of the United States to see the principle mentioned.²⁴⁷ In its submission to the UNFCCC regarding the 2015 climate change agreement, the USA suggested that commitments should be defined in a transparent way, on the basis of countries' national circumstances. The United States also opposed the incorporation of the UNFCCC Annexes into the 2015 climate change agreement, arguing that the approach of Annexes would not reflect the 2015 realities of countries.²⁴⁸

2.4.4.5. The European Union (EU)

The European Union has been very influential in making other states ratify the Kyoto Protocol and its extension, even though in application to the CBDR principle, the Kyoto protocol had mitigation obligations only for Annex I countries.²⁴⁹ The EU position confirmed its support to the UNFCCC interpretation of the CBDR principle. At Copenhagen in 2009, developing countries rejected a proposition from the EU to move the functioning parts of the Kyoto Protocol into a new global agreement. They argued that the union was trying to repeal the Kyoto Protocol and abolish the CBDR principle from the climate change regime.²⁵⁰ Since then, the EU has advocated for a post-2020 climate regime based on a more differentiated interpretation of the CBDR,²⁵¹ expecting that large emitting developing countries would take on as well.

²⁴⁵ Winkler (a) (note 35 above; 489).

²⁴⁶ *Ibid.*

²⁴⁷ M. Khor 'A clash of paradigms – UN climate negotiations at a crossroads' in: What Next Forum (Ed.) *What next volume III: climate, development and equity* (2012) 61 at 76 -105.

²⁴⁸ *United States Government* (2013): U.S. submission on the 2015 agreement. Available at: http://unfccc.int/files/documentation/submissions_from_parties/adp/application/pdf/adp_usa_workstream_1_20131017.pdf (Accessed: 09 July 2016).

²⁴⁹ See chapter 4 on the Kyoto Protocol for more details.

²⁵⁰ D. Torney 'Outsiders' perceptions and EU influence in the world: the case of climate change' (2013); Available at: http://asianperceptions.eu/system/files/private/NFG_Working_Paper_04_2013.pdf (Accessed: 17 August 2016).

²⁵¹ Winkler (a) (note 35 above; 489).

2.5. Conclusion

Climate change is happening, there is no doubt, especially now that various parts of the planet are increasingly experiencing its adverse effects. To minimise the climate change adverse effects, and further create conditions for the healing of the planet, every country, either developed or developing has to participate in the global effort to reduce the GHG whose exacerbation in the atmosphere causes the global warming and hence the climate change. In allocating GHG mitigation responsibilities to its countries parties, the UNFCCC, separated developed from developing countries, based on the CBDR-RC Principle. The overview of the key concepts of the study have shown that there is more than one way that country parties envisage some of the climate change related issues, such as the climate change definition, the differentiation of countries on the basis of their level of development, the way to understand and apply the Common But differentiated Responsibility and Respective Capabilities principle in the climate change regime. The next chapter will focus on the key steps undertaken during the negotiations towards the new 2015 universal climate change regime, which has updated the UNFCCC's interpretation of the CBDR principle to better reflect the global context of 2015, which is radically different from the context of 1992, whose CBDR interpretation led to the problematic cleavage between developed and developing countries.

CHAPTER III: THE EVOLUTION OF THE INTERNATIONAL CLIMATE CHANGE REGIME FOR DEVELOPING COUNTRIES

3.1. Introduction

From the discovery of the climate change phenomenon in the sixties followed by the adoption of the UNFCCC in 1992 and the Paris Agreement in 2015, considerable changes have occurred in the overall context of climate change, especially in countries' national circumstances.²⁵² For instance, the participation of developing countries in the global share of GHG emission has significantly increased in 2015, compared to 1992 when they played no significant role in that regard.²⁵³ The situation progressively and abundantly changed since 1992, to the extent that developing countries were among the main emitters in 2015. The majority of the COP forums which were organised before COP 21 in Paris discussed the issue of how to obtain emissions mitigation from developing countries as well, especially the new major emitters.²⁵⁴ It seems relevant to track discussions in order to understand country parties' stances, before engaging into the material and legal considerations regarding the regime shift that occurred under the 2015 Paris Agreement. With a special focus on the COP process, this chapter will analyse the progressive formation of the new emission mitigation regime for developing countries as adopted in the Paris Agreement in 2015. The chapter will start by briefly giving an historical overview of the climate change legal regime, before it reviews the positions of the parties and the outcomes of the key negotiation forums from the period pre and post UNFCCC/Kyoto Protocol.

²⁵² S. Werner 'Equity as the basis for a future international climate change agreement: between pragmatic panacea and idealistic impediment. The optimisation of the CBDR principle via realism' (2009) *C&I. law J. of S.Afr.* 166 at 166; Winkler (a) (note 35 above; 470).

²⁵³ Preamble of the UNFCCC states: 'Noting that the largest share of historical and current global emissions of greenhouse gases originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs'.

²⁵⁴ Winkler (a) (note 35 above; 486); Information available at: <http://dx.doi.org/10.1080/14693062.2006.9685572> (Accessed: 29 September 2016); see F. Rong 'Understanding developing country stances on post-2012 climate change negotiations: Comparative analysis of Brazil, China, India, Mexico, and South Africa' (2010) 38 *Energy Policy* 4582 at 4583; see Z.X. Zhang 'How far can developing country commitments go in an immediate post-2012 climate regime?' (2009) 37 *Energy Policy* 1753 at 1753; Chandler (note 47 above; ii).

3.2. Key steps of the development of the international climate change regime for developing countries

Finding an adequate and equitable formula to regulate GHG emissions originating from developing countries has been one of the most crucial issues for the UNFCCC states negotiators.²⁵⁵ As argued by Winkler,²⁵⁶ and supported by a number of other scholars,²⁵⁷ discussion has for long revolved around the question as to whether or not developing countries (especially major emitters from developing countries) should be included in a universal legally binding emission reduction scheme and how to settle such a binding scheme legally and practically. Nevertheless, as pointed out by Bodansky,²⁵⁸ the history of international environmental law does not fall short of relevant examples on how legal regimes have been set up and applied to address common environmental matters, and of which some are considered referential for emissions reduction regimes.²⁵⁹

In the field of international development, three major systems exist, as advanced by Nielsen Lynge,²⁶⁰ which are the World Bank system, the UNDP system and the IMF system, under which countries are classified into two groups, with regard to their levels of development, the developed countries and the developing countries. The former comprises financially richer and materially more equipped countries, while the later comprises poorer and under-equipped countries. The difference finds its explanation in some two centuries of industrialisation and equipment that has made the former richer. Also their two centuries of industrialisation makes them historically responsible for the current global warming and climatic change, by way of aggravating atmospheric concentration of GHG.²⁶¹ Developing countries on their side have not played a significant role in global warming and climatic change.²⁶² That is the reason why it was

²⁵⁵ C.R. Sunstein ‘World vs. the United States and China-The Complex Climate Change Incentives of the Leading Greenhouse Gas Emitters’ (2007) 55 the *UCLA L* 1675 at 1675.

²⁵⁶ Winkler (a) (note 35 above; 486).

²⁵⁷ Refer to note 23, 24 and 25 above.

²⁵⁸ Bodansky (a) (note 13 above; 32).

²⁵⁹ The Convention on Biological Diversity, the Montreal Protocol on the Ozone Layer are some of the examples.

²⁶⁰ See Nielson (note 134 above), See also Section 2.3 above for more details on the distinction between “developing” and “developed” countries.

²⁶¹ Preamble of the UNFCCC.

²⁶² *Ibid.*

agreed from the beginning of climate change talks that the two groups of countries would not be asked to bear the same burden of emissions reduction efforts.²⁶³

Parties hence had to endeavour so as to find the most appropriate and equitable formula that takes into account developing countries' national circumstances, which by the way are not static, but rather dynamic and changing over time. In fact, the global context that prevailed in the 1990s and before the adoption of an international treaty regulating climate change was no longer the same at the time of the negotiations of the 2015 Paris Climate Agreement.²⁶⁴ As asserted by Brunnée,²⁶⁵ the context having changed, it becomes normal that the law follows so as to correspond with the new context.

3.2.1. The era preceding the United Nations Framework Convention on Climate Change

Three dominant reflexes emerged among developing countries during the negotiations of the first climate change treaty that is the UNFCCC. The first was the fear that developing countries could be hampered from any economic development because of the climate change related restrictive measures to be imposed on their weaker economies and products.²⁶⁶ This was expressed by major industrialising countries such as China, Brazil and India. The second comprises the string of environmental damages on geographically disadvantaged countries,²⁶⁷ brought forward by developing countries islands (that later established the Alliance of Small Island States "AOSIS" negotiating group to support their climatic claims).²⁶⁸ The last was in liaison with developing

²⁶³ *Ibid.*

²⁶⁴ Werner (note 252 above; 169); Winkler (a) (note 35 above; 470).

²⁶⁵ Brunnée (a) (note 153 above; 603).

²⁶⁶ This concern was expressed by major industrialising countries such as China, Brazil and India. See E. Louka '*International Environmental Law: Fairness, Effectiveness, and World Order*' (2006) 364 Quoting Article 3.4 and Article 5 of the UNFCCC; A. Cosbey 'Border Carbon Adjustment' (June 2008) *Trade and Climate Change Seminar at IV.* Available at: https://www.iisd.org/pdf/2008/cph_trade_climate_border_carbon.pdf; (Accessed: 6 May 2016); Bodansky (a) (note 13 above; 23).

²⁶⁷ *Ibid* Bodansky (a) at 24.

²⁶⁸ 'The Alliance of Small Island States (AOSIS) is a coalition of Small Island and low-lying coastal countries that share similar development challenges and concerns about the environment, especially their vulnerability to the adverse effects of global climate change. It functions primarily as an ad hoc lobby and negotiating voice for Small Island developing States (SIDS) within the United Nations system, and especially the UNFCCC. It has a membership of 44 States and observers, drawn from all oceans and regions of the world: Africa, Caribbean, Indian Ocean, Mediterranean, Pacific and South China Sea. 39 of them are UN members, amounting to almost 28% of developing countries, and 20 % of the UN's total

countries' lack of financial and technological means for mitigation and adaptation actions,²⁶⁹ put up by the Least Developed Countries (LDC).²⁷⁰ Those reflexes, made by countries with different developmental profiles, varying economic situations, and uneven geographical vulnerability,²⁷¹ later became formal claims of developing countries, and played a role in inspiring the climate change regime in general. The next section describes the few steps back into the days when the current climate change regime was in gestation.

3.2.1.1. Initial climate change awareness

Previously unknown, the climate change awareness arose at the turn of the 20th century.²⁷² The Swedish chemist S. Arrhenius, is regarded as one of the scientific pioneers to have discovered the greenhouse effect, which he found to be in relation with climate change.²⁷³ For a short time, his work triggered a great interest for both phenomenon (greenhouse effect and climate change) but especially for the greenhouse effect.²⁷⁴ However, it took almost a century before the awareness expanded worldwide, and concrete political engagements followed, owing to insufficiency of information and

membership. Together, SIDS communities constitute some five percent of the global population. It functions on the basis of consultation and consensus. It does not have a formal charter, neither any regular budget, nor a secretariat, and operates out of the chairman's Mission to the United Nations.' Information available at: <http://aosis.org/documents/climate-change/> (Accessed: 10 July 2016).

²⁶⁹ Bodansky (a) (note 13 above; 24).

²⁷⁰ Article 4.9 of the UNFCCC States: 'Parties shall take full account of the specific needs and special situations of the least developed countries (LDC) in their actions with regard to funding and transfer of technology.' The (LDCs) group comprises 49 countries based on three criteria: low income, weak human assets and high economic vulnerability. Thirty-three are in Africa, ten in Asia, one in the Caribbean and five in the Pacific. At present, of the 49 LDCs, 48 are Party to the UNFCCC. An up-to-date list of the LDCs is maintained at: <http://www.unctad.org/Templates/Page.asp?intItemID=3641&lang=1>. (Accessed: 12 July 2016); Information available at: http://unfccc.int/cooperation_and_support/ldc/items/3097.php (Accessed: 12 July 2016).

²⁷¹ Developing countries are organised in negotiation groups under the UNFCCC as follows:

1. Group of 77 and China (G77 + China): comprising the BASIC group, the Arab Group, The Bolivarian Alliance for the Peoples of Our America (ALBA), The Independent Alliance of Latin America and the Caribbean (AILAC), the Alliance of Small Island States (AOSIS), The African Group, The group of Least Developed Countries (LDCs). More details available at: <http://www.g77.org/> (Accessed: 20 May 2016).
2. The Coalition for Rainforest Nations (CfRN); more details available at: <http://www.rainforestcoalition.org/> (Accessed: 20 May 2016).
3. The Like-Minded Developing Countries on Climate Change (LMDC); more details available at <http://www.cop21.gouv.fr/en/whats-the-use-of-the-country-coalitions/> (Accessed: 15 July 2016).

²⁷² Bodansky (a) (note 13 above; 32).

²⁷³ See note 55 above for details on Arrhenius's presentation; See also Bodansky (a) (note above 13; 24).

²⁷⁴ *Ibid* Bodansky (a).

to rudimentary means of research at that time.²⁷⁵ Even though more information came up, and knowledge improved, there were still doubts and hesitations for climate change actions due to persistent uncertainties around its nature, origins and drivers.²⁷⁶ As a result, further efforts had to be deployed to dispel these uncertainties.

3.2.1.2. Early climate change initiatives

In 1960, the research of a group of scientists from the Mauna Loa observatory²⁷⁷ established the rise of the atmospheric CO₂ and hence confirmed the occurrence of climate change, putting an end to the climate change controversy that until then existed.²⁷⁸ As a result, scientists and political actors started undertaking actions to deal with the new challenge.²⁷⁹

However, despite numerous earlier international environmental moves that eventually led to the 26 principled 1972 Stockholm Conference,²⁸⁰ firmer initiatives towards the current climate change regime started only late 1980s and early 1990s.²⁸¹ Contributions such as the discovery of the stratospheric “ozone hole” in 1987 followed by the publication of the Brundtland Commission report, *Our Common Future*²⁸² were noticeable, as they led to the 1992 UNCED in Rio de Janeiro.²⁸³ The 1985 Vienna Convention for the Protection of the Ozone Layer and its 1987 Montreal Protocol on

²⁷⁵ *Ibid* Bodansky (a); S.B. Pralle ‘Agenda-setting and climate change’ (2009) 18 (5) *Env. Politics* 781 at 782-783.

²⁷⁶ IPCC 2014 (a) (note 56 above; 351-411).

²⁷⁷ The Mauna Loa observatory is located in Hawaii. Scientists engaged in that research were under the supervision of Charles David Keeling. Based on evidence, they scientifically established that the atmospheric concentrations of CO₂ were increasing. See Bodansky (a) (note 13 above; 24).

²⁷⁸ *Ibid* Bodansky (a).

²⁷⁹ *Ibid*.

²⁸⁰ Various international conferences on global warming were held in the 1980s. See L. Kurukulasuriya & A.N. Robinson (Eds) *Training manual on international environmental law*. UNEP/Earthprint (2006) at 111. Available at:

<http://digitalcommons.pace.edu/cgi/viewcontent.cgi?article=1789&context=lawfaculty> (Accessed: 2 May 2016); See note 170 above for the declaration of the 1972 United Nations Conference on the Human Environment.

²⁸¹ Bodansky (a) (note 13 above; 23).

²⁸² *Ibid* Bodansky; the Brundtland Commission report was published in 1987. Report available at: <http://www.un-documents.net/our-common-future.pdf>. (Accessed: 18 June 2016).

²⁸³ Conference held from 3 – 14 June 1992 under the aegis of the UN. Report on the conference available at: <http://www.un.org/geninfo/bp/enviro.html> (Accessed: 16 July 2016).

Substances that Deplete the Ozone Layer²⁸⁴ are also worthy to be mentioned owing to the referential role they played towards the shaping of a climate change regime.²⁸⁵ The United Nations General Assembly Resolution 43/53 recognising climate change as a “common concern for mankind” was determined to put the subject on a high profile agenda.²⁸⁶ In addition, both the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988,²⁸⁷ and the proclamation of the 1992 Rio de Janeiro Principles added value to the scientific contributions and to the ongoing judicial steps, as both were proven to be particularly enabling to the negotiation and adoption of the UNFCCC in 1992 and the Kyoto Protocol in 1997.

As also was the view of Velders,²⁸⁸ among all the aforementioned influential factors, was the prominent and referral legal role played by the 1987 Montreal Protocol towards the shaping of the climate change regime. The next sections review the 1987 Montreal Protocol contribution.

²⁸⁴ “Since its initial adoption in 1987, the Montreal Protocol has been adjusted six times. Its specificity is that it includes a unique adjustment provision that enables its parties to respond quickly to new scientific information and agree to accelerate the reductions required on chemicals already covered by the Protocol. These adjustments are then automatically applicable to all its country parties.” Available at: <http://ozone.unep.org/en/handbook-montreal-protocol-substances-deplete-ozone-layer/6> (Accessed: 11 April 2016).

²⁸⁵ “The 1985 Vienna Convention was adopted in 1985. It entered into force on the 22nd September 1988. In 2009, it became the first Convention to achieve universal ratification, with 197 countries parties. Its objectives were for Parties to promote cooperation by means of systematic observations, research and information exchange on the effects of human activities on the ozone layer and to adopt legislative or administrative measures against activities likely to have adverse effects on the ozone layer. Its specificity is that it includes a unique adjustment provision that enables its parties to respond quickly to new scientific information and agree to accelerate the reductions required on chemicals already covered by the Protocol. It required not to countries to take concrete actions to control ozone depleting substances. It provides that countries had to adopt a Protocol which sets up actions to phase out substances that deplete the ozone layer.” Information available at: <http://ozone.unep.org/en/treaties-and-decisions/vienna-convention-protection-ozone-layer>. (Accessed: 11 April 2016).

²⁸⁶ ‘The 70th plenary meeting of the General Assembly of the United Nations, of the 6th December 1988, entitled ‘Protection of global climate for present and future generations of mankind’ declares: ‘... Recalling also the conclusions of the meeting held at Villach, Austria, in 1985, which, inter alia, recommended a programme on climate change to be promoted by governments and the scientific community with the collaboration of the World Meteorological Organization, the United Nations Environment Programme and the International Council of Scientific Unions, Convinced that climate change affects humanity as a whole and should be confronted within a global framework so as to take into account the vital interests of all mankind, 1. Recognizes that climate change is a common concern for mankind, since climate is an essential condition which sustains life on earth’.

See UNGA Resolution 43/53 A/RES/43/53, 6 December 1988, United Nations Organisation. Available at: http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/43/53; (Accessed: 10 February 2016).

²⁸⁷ See section 2.1 note 58 for details on the IPCC.

²⁸⁸ Velders (note 52 above; 4814).

At the adoption of the 1987 Montreal Protocol, whose mandate was the phasing out of listed ozone depleting substances,²⁸⁹ there was probably no idea of the future role this text was going to play for the climate change regime.²⁹⁰ The fact that both the UNFCCC and the Kyoto Protocol refer to the Montreal Protocol as much as 11 times each is a confirmation of the inspirational role it has played in the adoption of both texts.²⁹¹

One of the features of the climate change regime that the Montreal Protocol has contributed to influence the most is the share of GHG emissions reduction burden between countries parties to the Kyoto Protocol, based on the CBDR and Equity Principle. Despite the fact that neither the 1985 Vienna Convention, nor the 1987 Montreal Protocol do explicitly mention the CBDR in their text bodies, the principle however is clearly referred to by both treaties,²⁹² while differently affecting to parties the burden of phasing out the ozone depleting substances. Tripp²⁹³ for instance sees the principle not only present, but overused under the Montreal Protocol, declaring that during the first ten years of its implementation, the Protocol tended to favour the “equity element” more than the protection of the ozone as such.

Once placed back into its 1987 context, Tripp’s remark although striking today, appears more justifiable as at that time, differential treatments towards countries was a relatively new international environmental law concept, as also noticed by Philippe Cullet in his analysis of differential treatments in international law:

“International law has traditionally been based on the principle of sovereign equality among states. As a consequence, treaties have normally provided for similar obligations for all states. In recent decades, the expansion of the international community and the globalisation of environmental and economic issues have led to the search for new legal

²⁸⁹ The chemical substances referred to here are used in solvents, foam, aerosols, mobile air conditioning, refrigeration and fire, of which chlorofluorocarbons are the most prominent. They accounted for 85% of the ozone layer depletion. See Kurukulasuriya (note 280 above; 111); *Ibid* Velders.

²⁹⁰ *Ibid* Velders.

²⁹¹ See chapter 4 on the Kyoto Protocol below.

²⁹² See section 2.3.3.2 above for details about the CBDR principle under the 1985 Vienna Convention and the 1987 Montreal Protocol.

²⁹³ Tripp & T.B. James ‘UNEP Montreal Protocol: Industrialized and Developing Countries Sharing the Responsibility for Protecting the Stratospheric Ozone Layer’ (1987) 20 *The. NYUJ Int'l L. & Pol* 733 at 734.

tools to take into account existing disparities and inequalities among states and to foster a better implementation of international agreements”²⁹⁴

It should also be noted in passing that the 1987 Montreal Protocol is one of the pioneer treaties on the issue of differential treatment among countries parties.²⁹⁵ In fact, as put forward by Cullet,²⁹⁶ differential treatment among countries parties to an international treaty erupted due to recent global environmental concerns (such as accidental discharges of oil tankers in the high seas) owing to which the UNFCCC also got adopted as the international legal framework to stabilise greenhouse gas concentrations in the atmosphere at levels that would prevent the world from experiencing any dangerous anthropogenic interference with the climate system.²⁹⁷

3.2.2. The advent of the United Nations Framework Convention on Climate Change

After all the above mentioned scientific progress, and political openings towards finding a solution to the climate change challenge, in May 1992, countries adopted the UNFCCC in order to cooperatively negotiate and engage into actions to tame the increasing global temperature, and its already felt negative impacts on the geo and biosphere.²⁹⁸ The UNFCCC entered into force on 21 March 1994. To date, the Convention enjoys a universal support as reflected by its 197 ratifications, which has given a good signal about the trust country parties put in its goal.²⁹⁹

3.2.2.1. Objective of the UNFCCC

The Objective of the UNFCCC is to protect the humankind from the consequences of increasing concentrations of unrestricted anthropogenic emission of greenhouse gas in

²⁹⁴ P. Cullet ‘Differential treatment in international law: towards a new paradigm of inter-state relations’ (1999) 10 (3) *EJInt'l L* 549 at 549.

²⁹⁵ *Ibid.*

²⁹⁶ *Ibid.*

²⁹⁷ Article 2 of the UNFCCC.

²⁹⁸ The biosphere is the part of the earth's environment where life exists. Definition available at: <http://dictionary.cambridge.org/dictionary/english/biosphere>. (Accessed: 20 September 2016).

²⁹⁹ Information available at:

http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php (Accessed: 10 May 2016).

the atmosphere from interfering with the climate system. To that extent, Article 2 of the UNFCCC provides:

“The ultimate objective of this Convention and any related legal instruments that the conference of the Parties (COP) may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilisation of greenhouse gas (GHGs) 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 that is 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”³⁰⁰

This objective also applies to any related legal instruments that the Conference of the Parties may adopt.³⁰¹

3.2.2.2. Principles of the Convention

Article 3 of the UNFCCC sets up the following guiding principles that parties should observe in their actions:

- The inter-generational equity principle (Article 3.1.)
- The common but differentiated responsibilities principle (Article 3.1.)
- The full consideration to be taken on the special circumstances of developing country parties. (Article 3.2.)
- The precautionary principle (Article 3.3.)
- The principle of sustainable development (Article 3.4.)
- The principle of international co-operation for climate action (Article 3.5.)

Article 38.1. (C) of the Statute of the International Court of Justice confers the status of the source of international law to the principles of law that are recognised by civilised

³⁰⁰ Article 2 of the UNFCCC.

³⁰¹ *Ibid.*

societies.³⁰² In the views of Beyerlin,³⁰³ principles may also be the source of emerging legal rules. Dworkin's explanations helps to better understand the concept "principle of law", as he first contrasts and further links it from the notion of "legal rule":

"A legal rule point to particular decisions about legal obligation in particular circumstances, but they differ in the character of the direction they give. Rules are applicable in an all-or-nothing fashion, whereas a principle states a reason that argues in one direction, but does not necessitate a particular decision. All that is meant, when we say that a particular principle is a principle of our law, is that the principle is one which officials must take into account, if it is relevant, as a consideration inclining in one way or another. Because of the open-ended character of principles, a government cannot be certain of where they will eventually lead."³⁰⁴

Principles that are applied under the UNFCCC are all general principles of international law. However, some of them equally apply to sectors other than climate change, while others mostly apply to one sector at a time. Principles such as the international co-operation, and the principle of full consideration to be taken on the special circumstances of developing country parties to a treaty, or even the CBDR, are also found in sectors other than the climate change sector or the environment sector, one find them for instance in commercial agreements.³⁰⁵ Whereas, principles such as the precautionary principle and the polluter pays principle are most specifically applied in the environment field.³⁰⁶ Therefore, from a sector view point, principles that apply to more than a sector at once are transversal principles, whereas those that apply to only a sector at once are vertical principles, as also explained by Kidd³⁰⁷ while discussing on the issue of

³⁰² General principles of law are the third source of international law, as included in article 38 (1) (c) of the Statute of the International Court of Justice. See the Statute of International Court of Justice; available at: http://legal.un.org/avl/pdf/ha/sicj/icj_statute_e.pdf (Accessed: 10 April 2016).

³⁰³ The Kyoto Protocol for instance illustrates the manner in which the CBDR principle have given birth to concrete rules. See U. Beyerlin 'Different types of norms in international environmental law: policies, principles and rules' in D. Bodansky *et al* *The Oxford handbook of international environmental law* (2007) at 442.

³⁰⁴ R. Dworkin 'Taking rights seriously' (1978) 136 *HPU* 24 at 26.

³⁰⁵ For instance, the principle of the most-favoured-nation (MFN) treatment under the World Trade Organisation. Information available at:

https://www.wto.org/English/thewto_e/whatis_e/tif_e/fact2_e.htm. (Accessed: 28 May 2016).

³⁰⁶ M. Kidd *Environmental Law* 2nd Ed (2011) at 7.

³⁰⁷ "Although different sources indicate that there are a number of distinctive environmental law principles, there appears to be general agreement on only two of these: the polluter pays principle and the precautionary principle." see Kidd (note 306 above; 7).

environmental laws principles being distinctive principles in the field of international law.

Even if it is not the focus of the present study, the researcher esteems it necessary to summarily explain the meaning of each one of those principles played under the UNFCCC, in order to understand their probable implication in the formation of the new climate change regime.

The inter-generational equity principle, which is the first to be referred to, promotes the protection of the climate for the benefit of present and future generations, as also noticed by Weiss.³⁰⁸ It echoes principle 3 of the 1992 Rio Declaration on environment and development:

“The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”³⁰⁹

Equity in a general sense refers to the quality of being fair or impartial.³¹⁰ Werner³¹¹ sees through Equity, ‘*The right of developing states to pursue development in the same manner as developed states did*’. Moreover, the fact that the UNFCCC mentions “Equity” only once, whereas the Paris agreement mentions it as much as six times is a clue of its significance to the Paris climate change regime. Also, the Paris agreement chooses to associate it more often with the CBDR-RC principle, perhaps for better significance towards the principle itself? Or else it may be an insistence to put and keep both principles together, and thus avoid any future misinterpretation or misuse of the

³⁰⁸ “Intergenerational equity is a concept that says that humans 'hold the natural and cultural environment of the Earth in common both with other members of the present generation and with other generations, past and future. It suggests that we inherit the Earth from previous generations and that we have the obligation to pass it on to future generations in good condition. The idea behind is not reducing their ability to meet their needs. Economic progress that one generation might bequeath to the following one cannot be used as an excuse to justify environmental degradation by them to generate such a welfare.' See details on the intergenerational equity in section 5.3.3 below; See E.B. Weiss ‘Our Rights and Obligations to Future Generations for the Environment’ (1990) *American Society of International Law* 198 200.

³⁰⁹ Refer to note 20 above for the Rio Declaration.

³¹⁰ Its Synonyms are: disinterest, equitableness, impartiality, fair-mindedness, fairness, justness, even-handedness, objectivity; justice, probity. Information available at:

<http://www.dictionary.com/browse/equity> (Accessed 13 January 2016).

³¹¹ Werner (note 252 above; 166).

CBDR principle as it has arguably been decried in the case of the Kyoto Protocol?³¹² Various scholars³¹³ agree about the most significant role the CBDR principle has played in shaping the climate change regime for all parties to the Convention, and especially developing countries. The CBDR principle will be the focus of the next chapter of this study.

The second *alinea* of Article 3 refers to the principle of full consideration to be applied on the special circumstances of developing country parties, especially parties that are vulnerable to the adverse effects of climate change. Here, coalition such as the AOSIS surely finds their source of legitimacy, as well as a great support for action.

The precautionary principle, evoked under *alinea 3*, then further developed in chapter four is a “pure” environmental law principle, compared to the others listed above.³¹⁴ It reiterates the need to take action by parties even in a context of insufficiency of scientific certainty, as it was precisely the case in 1992, at the adoption of the UNFCCC.³¹⁵ The AOSIS group was particularly supportive to the precautionary principle due to their own geographical vulnerability to adverse effects of climate change,³¹⁶ giving a very good example of what the practical meaning of the precautionary principle could be. During the plenary session of the Intergovernmental Negotiating Committee of the UNFCCC

³¹² See details in Chapter 5 on the Kyoto Protocol below; Pauw (note 153 above; 2).

³¹³ P.R. Muñoz ‘Principle of Common But Differentiated Responsibilities and its current interpretation problems in the context of the climate change international regulations’ (Unpublished LLM thesis, University of Chile, 2013) 5; available at: http://repositorio.uchile.cl/bitstream/handle/2250/114523/de-rivera_p.pdf?sequence=1; (Accessed: 5 August 2016).

³¹⁴ Article 3.3 of the UNFCCC: ‘The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socio-economic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested Parties’; See also Kidd (note 306 above; 7).

³¹⁵ The first IPCC report released in 1990 was drafted in a time when there were many scientific uncertainties with regard to climate change. That is the reason why no certainty has been advanced with regard to the human induced factor. However, over time more certainty progressively came up. (Information Available at: <http://www.theguardian.com/environment/climateconsensus97percent/2013/sep/27/global-warming-ipcc-report-humans>. (Accessed: 10 August 2016)).

³¹⁶ D. Bodansky (c) ‘United Nations Framework Convention on Climate Change: A Commentary’ (1993) 18 *The Yale J. Int'l l.* at 501.

(INC/UNFCCC)³¹⁷ in February 1991, a famous statement delivered by Robert Van Lierop,³¹⁸ former Permanent Representative to the United Nations and Chairman of the Delegation of Vanuatu, illustrates the fact:

“For us, the precautionary principle is much more than a semantic or theoretical exercise. It is an ecological and moral imperative. We trust the world understands our concerns by now. We do not have the luxury of waiting for conclusive proof, as some have suggested in the past. The proof, we fear, will kill us.”

The sustainable development principle more or less echoes principle 3 and 4 of the Rio Declaration,³¹⁹ which reads respectively as follows:

“The right to development must be fulfilled so as to meet equitably developmental and environmental needs of present and future generations.”

“In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.”

During the drafting of the UNFCCC, a battle raged over suitable wordings for this principle, as it also occurred for other issues. With that regard, Bodansky³²⁰ explains that the presence of those principles left some developed countries uncomfortable, arguing that the original UNFCCC text that was brought to the negotiation table made no mention of principles. Bodansky further points out that it was a quest from China that insisted for the inclusion *expressis verbis* of an Article on principles in the Convention, despite the opposition of the USA on the grounds of lack of clarity of its legal status.³²¹ With China’s claim being taken into consideration, the USA insisted alternatively on the

³¹⁷ The Intergovernmental Negotiating Committee was established by the UN in 1991, with the mandate of negotiating an international convention on climate change. Information available at: http://unfccc.int/essential_background/items/6031.php. (Accessed: 7 March 2016).

³¹⁸ Statement at the Plenary Session of the INC/FCCC, 5 February 1991. Information available at: <http://www.unfccc.org> (Accessed: 7 July 2016).

³¹⁹ See note 20 above on the Rio de Janeiro Declaration on Environment and Development.

³²⁰ Bodansky (c) (note 316 above; 501).

³²¹ The first country to propose an Article on general principles was China. See Bodansky (a) (note 13 above; 501)

inclusion of the term “*inter alia*” in the introductory paragraph³²² of the said Article, to specify that the list of principles under Article 3 was not to be envisaged as limitative, as there could be more other principles that parties might refer to while implementing the UNFCCC.³²³

Still during negotiations, developing countries pushed for the recognition of "the right to development" as an "inalienable human right" and that "peoples have an equal right in matters relating to reasonable living standards".³²⁴ Developed countries, however, proposed instead the formula: "States have a duty to aim at sustainable development". They were pushed by the United States which repulsed the phrase, "right to development", arguing that it was vague and that it could motivate developing countries to claim for financial assistance.³²⁵

Besides this, developing countries expressed doubts about the concept of "sustainable development", fearing that the "sustainability" concept could end up being used as a new conditionality on financial assistance, in which case there could be inhibitions on their development goals.³²⁶ Fortunately the final provision of the Convention addressed concerns of both parties by saying: "Parties have a right to, and should promote sustainable development".³²⁷ The battle around which suitable words to be retained (for the provisions of the UNFCCC) was a more important presage with respect to country parties' commitments.

3.2.2.3. Parties Commitments under the UNFCCC

Article 4 of the UNFCCC creates differentiated obligations for developing and developed countries. This is in order to achieve the objective of the Convention as

³²² The introductory paragraph of article 3.1 states: "In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, *inter alia*, by the following".

³²³ Bodansky (c) (note 316 above; 501).

³²⁴ *Ibid* at 504.

³²⁵ In 1986, the United States voted against the U.N. Declaration on the Right to Development. See the UNGASS Resolution 128, 41st Session 97th plenary U.N. Doc. A/41/53 (1986). Doc available at: http://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/41/53. (Accessed: 18 September 2016).

³²⁶ Bodansky (c) (note 316 above; 504).

³²⁷ *Ibid*.

enshrined in its Article 2, although commitments are structured in a pretty complicated way.³²⁸

- General commitments [Articles 4(1), 5, 6, and 12(1)]: mostly based on the CBDR principle they apply to both developed and developing countries;³²⁹
- Specific commitments on sources and sinks of GHG [Articles 4(2) and 12(2)]: apply only to parties listed as Annex I (OECD³³⁰ member states and former Eastern bloc);
- Specific commitments relating to financial resources and technology transfer (Article 4(3)), which apply to the parties listed in Annex II (OECD countries). Under those provisions, developing countries do not assume the same commitments as the developed ones; besides that, the general commitments are only qualitative, they relate to matters such as greenhouse gas inventories, reporting, national strategies, co-operation in scientific research, and information exchange.

Under the UNFCCC, member countries of the OECD took on the strongest measures and further agreed to adopt policies and measures that demonstrate their good will in ‘taking the lead’ in addressing climate change. Countries in transition to a market economy were granted ‘a certain degree of flexibility’, in the implementation of their commitments under Article 4.2.

Similarly, to the scenario under the 1985 Vienna Convention and the 1987 Montreal Protocol for the phasing out of the ozone layer depleting substances, the UNFCCC adopted no “specific measures” to address climate change,³³¹ but instead took on “framework measures” to organise the international response.³³² Negotiations therefore had to continue towards more concrete measures and steps.

Nevertheless, it is worth noticing that from the negotiation stages up to the adoption of the final text of the Convention, parties were unanimous on the fact that from an historical point of view, developed countries have played a greater role in the emission

³²⁸ *Ibid* at 505.

³²⁹ P.W. Birnie *et al* (a) *International Law and the Environmental* 3 Ed (2009) at 359.

³³⁰ See section 2.1.2 note 126.

³³¹ See section 4.1 below and note 527 above for the definition and more details on framework conventions.

³³² *Ibid*.

of GHG, and that they should accordingly take the lead in combating climate change, with more commitments, compared to developing countries.

Even the preamble of the UNFCCC states:

“Noting that the largest share of historical and current global emissions of GHG has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.”³³³

A proposition that developing countries should commit themselves to keep their future net growth of greenhouse gas emissions to the lowest levels possible was abandoned due to the lack of support.³³⁴ Countries such as India maintained that there should be no legal obligation for developing countries under the UNFCCC.³³⁵ Thus, the Convention included specific commitments for developed countries, with no specific timeframe and no target for emissions limitation.³³⁶ Here again, it is worth noticing that the main holdout against the adoption of targets and timeframes was the United States.³³⁷

Meanwhile, for a quarter of a century after the adoption of the UNFCCC, the global context of GHG emissions has abundantly evolved, and more actions are needed from all countries.³³⁸ It is argued that more than two thirds of cuts in greenhouse gas emissions needed by 2030, will have to come from developing countries in order to stabilise long term greenhouse gas concentrations at 450 ppm CO₂-eq or lower.³³⁹ Developed countries as a group should by 2020 reduce emissions by 25–40 percent below 1990 levels, while developing countries’ emissions are expected to be reduced by around 15–30 percent,

³³³ See Preamble of the UNFCCC.

³³⁴ *Consolidated Text Based on Proposals Regarding Principles and Commitments INC/FCCC 3rd Session (1991) Provisional Agenda Item 2(a) U.N. Doc. AIAC 237 I Misc. at 9.*

³³⁵ See the Statement of India Feb. 6 1991 at 4 (maintaining that "there can be no legal obligation for developing countries").

³³⁶ A. Kiss & D. Shelton *International Environmental Law* 2 Ed (2000) at 514.

³³⁷ *Ibid.*

³³⁸ Bodansky (a) (note 13 above, 11).

³³⁹ D. Elzen *et al* ‘Sharing the reduction effort to limit global warming to 2° C’ (2010) 10 (3) *Climate Policy* 247 at 247.

relative to their baseline levels, even though they are not historically responsible for the current climate change.³⁴⁰

Hence, slowly but firmly came up the question of whether or not there should be, binding emissions limitations upon developing countries as well. The question gained momentum to the extent of becoming one of the burning issues during climate change negotiations after the adoption of the Kyoto protocol.

3.2.3. Overview of negotiations talks towards a new regime for developing countries

The current climate change regime for developing countries is the fruit of trade-offs between stances of predominant forces.³⁴¹ It is also the result of overall contextual factors that have had impact on negotiators' decisions. Contextual factors relate to circumstances that were predominant at the time of negotiations, whereas predominant forces relate to countries (envisaged individually or in groups). Consequentially, it is important to identify those factors and understand how they work.

3.2.3.1. Forces that are present during the climate change negotiations³⁴²

There is an abundant literature from authors who recognise the following to be the most important forces that were present during the implementation of the current climate change regime, especially in its early days:³⁴³

³⁴⁰ *Ibid* Elzen; Werner (note 252 above; 166); IPCC 2014 (a) (note 56 above; 96).

³⁴¹ UNEP (2007), 'Multilateral Environmental Agreement Negotiator's Handbook 2nd Ed: Nairobi, Kenya, 171; Keohane *et al* (note 11; 2).

³⁴² Many NGO and other civil society organizations have as well played a vital role. See L. Eastwood 'Climate Change Negotiations and Civil Society Participation: Shifting and Contested Terrain' (2011) 4 (1) *Theory in Action* 8; information about NGOs influential role in climate change talks. Information available at: <http://www.climate network.org/> (Accessed: 10 August 2016); See also: <http://www.eea.europa.eu/themes/climate/links/non-governmental-organisations-ngo>. (Accessed: 9 July 2016); see also: <http://www.caneurope.org/> (Accessed: 9 July 2016); see: <http://www.greenpeace.org>; (Accessed: 9 July 2016).

³⁴³ See Bodansky (a) (note 13 above; 31); see also Höhne (note 344 below; 22).

- The oil producing countries (OPEC),³⁴⁴ from the start, feared for the backwash of climate change measures on oil trade and questioned the science of climate change, arguing rather for a “go-slow” approach.³⁴⁵
- The AOSIS group,³⁴⁶ their greatest fears are the environmental consequences of climate change on their territories and population, such as sea level rise and floods.³⁴⁷ Owing to that, they strongly supported the establishment of targets and timetables for developed countries.³⁴⁸
- The coalition for rainforest nations, the first group of developing countries to have advocated for a staged approach that differentiates between developing countries, in contrast to the position of the G77 who does not accommodate with any type of differentiation among developing countries.³⁴⁹
- The emerging developing countries, fearing that climate change measures would hamper their efforts to economic development, or infringe on their sovereignty.³⁵⁰
- The group of 77 and China,³⁵¹ were resistant to the simple idea of taking on any costly commitments, fearing negative impacts on their economies. Their strongly

³⁴⁴ ‘The ten members of the Organization of Petroleum Exporting Countries (OPEC) have tried to slow the process of international negotiations by questioning the scientific case for mitigation and by attempting to postpone discussions of new commitments for all Parties for the future. Saudi Arabia, a very active and vocal member of the group initially supported the US rejection of the Kyoto Protocol. OPEC countries call for a consideration and possibly compensation for the adverse effects of reduced emissions on their economic development due to reduced revenues from oil exports and/or funding from Annex II Parties for economic diversification as well as removal of subsidies by Annex I Parties for domestic coal and nuclear power. They also strongly support a comprehensive approach to the climate problem with all gases and all sectors being considered, particularly sinks’. Information on OPEC available at: www.opec.org (Accessed: 7 May 2016); See N. Höhne *et al* ‘History and Status of the International Climate Change Negotiations on a Future Climate Agreement’ (2006) 1 *Background Paper* at 25; Available at <http://www.basic-project.net/> (Accessed: 7 May 2016).

³⁴⁵ Bodansky (a) (note 13 above; 31).

³⁴⁶ See section 3.1.1 and note 267 above on the AOSIS group.

³⁴⁷ Höhne (note 344 above; 21).

³⁴⁸ Bodansky (a) (note 13 above; 33).

³⁴⁹ The coalition of rainforest nations was an initiative of Papua New Guinea. It sought recognition of the efforts of member countries to avoid deforestation. It comprises 14 countries with rainforests, formed over the course of 2005 – 2006 including Bolivia, Central African Republic, Chile, Congo, Costa Rica, Democratic Republic of Congo, Dominican Republic, Fiji, Gabon, Guatemala, Nicaragua, Panama, Papua New Guinea, Solomon Islands, Vanuatu. Information available at: <http://www.rainforestcoalition.org/> (Accessed: 20 May 2016); see Höhne (note 344 above; 22).

³⁵⁰ Bodansky (a) (note 13 above; 33).

³⁵¹ The group of 77 and China represents interests of all developing countries plus China, for the sake of climate negotiations. Members have diverse national circumstances, with sometimes opposite interests. For instance, Small Island States members who call for stronger measures, fearing to be flooded due to sea level rise, while oil producing countries members call for a go slow approach, fearing loss of their income due to petrol use restrictions as a climate change measure. Information available at: <http://www.g77.org> (Accessed: 20 May 2016).

held position was that the historical change of climate was the responsibility of developed countries, and that developed countries should have the main responsibility and take the lead in tackling climate change. They also support that no further commitments for developing countries would be acceptable, at least until the developed countries have demonstrated to have taken the lead in combating climate change.³⁵²

- The LDCs,³⁵³ the broad consensus relating to them is that they should not have any obligation to reduce emissions, and that future international actions should support their deployed efforts in terms of adaptation to climate change negative impacts and effects.³⁵⁴
- The EU, whose standing position from the beginning of the negotiations up to date is that developed countries should take the lead in combating climate change. With regards to GHG emissions limitations, the EU has advocated that the Kyoto style targets may not be applied on developing countries, but has instead called for other types of approaches which are better suitable for the needs and circumstances of developing countries, arguing that emission reduction targets as they are under the Kyoto Protocol were appropriate for Annex I countries alone, and that there were other options suitable for Non-Annex I countries.³⁵⁵
- The USA, second largest GHG emitter worldwide after China, fearing for its economy to slow down as a consequence of climate change measures, kept its eyes on its greatest challenger, which is a developing country, China.³⁵⁶ From the start of climate change talks, the USA was opposed to the establishment of any target and for any time table/frame on the ground that they were too rigid, and took no account of differing national circumstances.³⁵⁷ From 1994 to 2001, the USA has firmly maintained its position of advocating for a greater involvement of developing countries (calling it a ‘meaningful participation’ of

³⁵² Höhne (note 344; 23).

³⁵³ Information available at: <http://www.g77.org> (Accessed: 20 May 2016).

³⁵⁴ Höhne (note 344; 25).

³⁵⁵ Pauw (note 153 above; 24-25).

³⁵⁶ The world’s 10 largest emitters by 1 October 2015, in descending order of emission levels: China, the USA, the European Union, India, Russia, Indonesia, Brazil, Japan, Canada and Mexico; UNEP (note 37 above; 14); see also Depledge (note 239 above; 11).

³⁵⁷ J.B. Wiener (a) ‘Climate change policy and policy change in China’ (2007) 55 *UCLA L. Rev* 1805.

developing countries), beyond the commitments defined under the UNFCCC.³⁵⁸ It rejected the Kyoto Protocol in March 2001, disappointed upon the apparent ‘exclusion’ of developing countries, specifically China and India from any emission reduction schema, and owing to the high costs involved for the USA to reach its target. Since June 2002, Niklas draws attention on a determining shift in the US position, which no longer called for developing countries’ further commitments, but rather opposed henceforth any binding commitments for any party under the UNFCCC.³⁵⁹

3.2.3.2. Contextual factors

As Bodansky³⁶⁰ explains, negotiations towards the UNFCCC were happening within a context where prevailed factors such as:

- Growing public awareness on climate change that led to broader calls for action, especially the public opinion in developed countries;
- Progressively greater light on the origins and drivers of the climate change phenomenon, to the extent of leading developed countries to acknowledge their historical responsibility for climate change;
- Financial pressures coming from developing countries so as to gather necessary means and address climate change.

All these factors became the basic reflexes of developing countries during the early days of the UNFCCC negotiations.

Similarly, Kurukulasuriya³⁶¹ found prevailing factors during negotiations to the adoption of the Kyoto Protocol, that for him are comparable to those on the 1987 Montreal Protocol negotiation table:

³⁵⁸ Höhne (note 344 above; 26).

³⁵⁹ *Ibid* Höhne;

³⁶⁰ For Bodansky, the evolution of awareness about climate change was characterized by three stages:

i. emergence of a broad scientific consensus,
ii. growth in public and political interest,
iii. formulation of an international policy response. See Bodansky (c) (note 316 above; 458);

³⁶¹ Kurukulasuriya (note 280 above; 112).

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- Greater concerns about developing countries' financial abilities, which were barriers to their adherence to the treaty's commitments;
 - The necessity for a drafting style of the protocol that is flexible, in order to timely adjust to new scientific evidences and any probable significant change within the context of parties;
 - The determination of an economically feasible and detailed time schedule for the phasing out of the ozone depleting substances.³⁶²

According to Birnie,³⁶³ the intention behind the adoption of the UNFCCC was to secure a universal participation of countries. However, such a universal inclusivity could not be achieved without any price to be paid.³⁶⁴ Therefore continued Birnie,³⁶⁵ even if the Convention had successfully gathered almost all the sheep in the sheepfold (considering its 196 ratifications to date), its provisions were the reflection of an unfinished compromise process, and its wordings recounting important differences of position among parties.³⁶⁶ That is why the inclusive characteristic of the UNFCCC has been generally viewed as both strength, and weakness.³⁶⁷ The UNFCCC and the Kyoto Protocol, revealed their limitations during their implementation.³⁶⁸ Furthermore, the flow of climate change related scientific information followed established human behaviour for this phenomenon, and called for immediate and greater actions from all.³⁶⁹

³⁶² *Ibid.*

³⁶³ Birnie (note 329 above; 257).

³⁶⁴ *Ibid.*

³⁶⁵ *Ibid.*

³⁶⁶ *Ibid.*

³⁶⁷ V.P. Nanda & G. Pring *International Environmental Law & Policy for the 21st Century* (2003) at 247, 290; See P.W. Birnie & A.E. Boyle 'International Law and the Environment' 2 Ed (2002) at 516.

³⁶⁸ A. Manne & R. Richels 'US rejection of the Kyoto Protocol: the impact on compliance costs and CO₂ emissions' (2004) 32 (4) *Energy Policy* 447 at 451; Korhola (note 21 above, 197-208); E. Diringer 'Climate policy: Letting go of Kyoto' (2011) 479 (7373) *Nature* 291 at 292.

³⁶⁹ IPCC 2014 (a) Mitigation report confirms at 95% that climate change is a human induced phenomenon. Hereafter is a table of the degree of certainty that progressively came forward under each IPCC report.

Years of publication of the IPCC Mitigation Assessment Report	Degree of Certainty that the current climate change is a human induced phenomenon
1990	?
1995	50.00 %
2001	66.00 %
2007	90.00 %
2014	95.00 %

This brought back the question of whether binding limitations should be extended as well for emissions resulting from developing countries. The question, although of great relevancy was still left formally unanswered, even after signs of a regime collapse that came up with the withdrawal from the Kyoto protocol scheme of a major emitter such as the United States.³⁷⁰ Subsequent rounds of negotiations showed lack of progress given the decreased confidence in the UNFCCC as the platform for mobilising a global response to climate change.³⁷¹

Bearing this in mind, it became easier to navigate through the UNFCCC negotiation forums which are the Conference of the Parties (COPs)³⁷² as they progressively moved towards a new regime for developing countries in Paris in 2015. Considering the aim of the present research, the first COP to be envisaged under next sections of the current chapter will be the 13th, whereas the last will be the 20th. The focus will be put on the COP's objectives and outcomes with respect to progressive formation of the developing countries' new regime.

3.2.4. COP 13: The Bali Road Map

3.2.4.1. Objective

The 13th edition of the COP at Bali, Indonesia was held from the 3rd –15th December 2007 with the aim of creating a roadmap in order to chart the course for future global climate change negotiations on which basis a post Kyoto global agreement was to be

The IPCC Mitigation Assessment Reports are available at:

https://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml. (Accessed: 28 March 2016).

³⁷⁰ M. GRUBB *et al* ‘The economics of the Kyoto Protocol’ (2003) 4 (3) WEHT 143 at 164 - 165; Korhola (note 21 above; 199).

³⁷¹ Engel & H. Kirsten ‘Mitigating global climate change in the United States: a regional approach’ (2005) 14 NYU Envtl. LJ at 54. Available at: [http://heinonline.org/HOL/Page?handle=hein.journals/nyuev14&div=8&g_sent=1&collection=journals>](http://heinonline.org/HOL/Page?handle=hein.journals/nyuev14&div=8&g_sent=1&collection=journals;); (Accessed: 15 March 2016).

³⁷² Article 7 of the UNFCCC provides for the Conference of the Parties. See section 2.1.1 above for more details.

negotiated within the following two years.³⁷³ Parties were more willing to work together for a new global climate change treaty.³⁷⁴ Key issues at Bali concerned:

- i. the post-2012 emission reductions of the industrial countries;
- ii. the possible post-2012 participation of developing countries;
- iii. adaptation to climate change;
- iv. technology and financing of the developing countries, and
- v. curtailing forest depletion (in developing countries).³⁷⁵

3.2.4.2. Outcome

Several options were discussed in order to extend the limitations of GHG emissions to the group of developing countries, of which some were proposed by developing countries themselves.³⁷⁶ The Conference established two new subsidiary bodies: the first

³⁷³ Negotiations had to be completed by December 2009, at the COP15 in Copenhagen.

³⁷⁴ R.L. Arcas ‘Is the Kyoto Protocol an adequate environmental Agreement to resolve the climate change Problem?’ (2001) *EEnvLawRev.* 282 at 284.

³⁷⁵ ‘The initiative of Reduction of Emissions from Deforestation and Forest degradation (REDD+) came up with the Bali Action Plan. REDD + did not alter developing countries’ regime, but solved an economical, and socio-environmental problem by putting more attention on incentivising towards existing forests with the aim of avoiding having them cut down or degraded in the future. Emissions from deforestations and forest degradations which are covered by the REDD+ initiative represent 11% of global emissions.’ Information available at: <http://www.unredd.net/documents/redd-papers-and-publications-90/un-redd-publications-1191/fact-sheets/15279-fact-sheet-about-redd.html>. (Accessed: 26 October 2016).

³⁷⁶ The following are alternative approaches proposed for the inclusion of developing countries under emission limitation scheme:

1. Kyoto-Style fixed targets: A form of an agreed percentage reduction against annual emissions in a base year 1990, opening the way to the calculation of an absolute number of tons of CO₂ to be reduced.
2. Per Capita: it considers the equal right of each person to use the atmosphere as a global commodity. No reference to current emissions levels, but a global budget equally allocated to countries based on population.
3. Brazilian Proposal: Bases its burden sharing approach on historical responsibility for change in temperature to individual countries. The original Brazilian proposal attributed responsibility among Annex I countries for an overall reduction of 30% below 1990 levels by 2020.
4. Emission Intensity: requires reductions of emissions relative to economic output (GHG/GDP). It therefore allows growth in emissions if there is economic growth. To account for different national circumstances, commitments could be formulated as a percentage decrease from each country’s own emissions intensity.
5. SD-PAMs Sustainable Development Policies and Measures: SD-PAMs suggest that developing countries themselves identify more sustainable development paths and commit to implementing these with financial support from the developed countries.
6. Evolution of the Clean Development Mechanism: Extending the CDM already in place within developing countries will not be a commitment to reduce emissions domestically, but could instead be an important form of a nationally appropriate mitigation action.

under the UNFCCC (the Ad Hoc Working Group on Long term Cooperative Action “AWG-LCA”)³⁷⁷ and the second under the Kyoto Protocol (Ad Hoc Working Group on Further Commitments for Annex I parties “AWG-KP”).³⁷⁸ The two subsidiary bodies were supposed to complete their works in two years, at COP 15, in Copenhagen in 2009. The following negotiations were held under the two subsidiary bodies within their respective statutory mandates and life spans.

The attempt in Bali was to retain the Annex I/Non-Annex I balance of mitigation commitments, but also to increase the sense of urgency on both sides.³⁷⁹ However, the final document, the “Bali Action Plan” was neutral as it included no quantitative emissions reduction for any party.³⁸⁰ Dutt and Gaioli³⁸¹ qualified it to be a simple echo of the position of the USA which opposed the idea of any emission limitation to be imposed on either party,³⁸² although it launched an appeal towards large emitting developing countries such as China, India, Brazil and Mexico, for concrete actions on emissions limitations.³⁸³ Under the lead of China and India, the appeal made by the USA

7. Global Triptych: Focuses on three sectors – electricity generation, energy-intensive industries and “domestic sectors” (including residential and transportation). It also takes into account the technological opportunities available in various sectors.

See UNDP “the Bali Road Map, Key issues under Negotiations” (2008) at 41 – 47. Available at: http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Change/Bali_Road_Map_Key_Issues_Under_Negotiation.pdf. (Accessed: July 16, 2016).

³⁷⁷ ‘The Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) was established as a subsidiary body under the Convention by decision 1/CP.13 (the Bali Action Plan) to conduct a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome to be presented to the COP for adoption’. Information available at: <http://unfccc.int/bodies/body/6431.php> (Accessed: 02 June 2016).

³⁷⁸ ‘In 2005, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) at its first meeting in Montreal, by its decision 1/CMP.1, established the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP). The AWG-KP was established to discuss future commitments for industrialized countries under the Kyoto Protocol. The AWG-KP reported to the CMP. In 2012, the CMP, at its eighth session, adopted decision 1/CMP.8 (the Doha Amendment). In doing so, the CMP decided that the AWG-KP had fulfilled the mandate set out in decision 1/CMP.1, and that its work was concluded.’ Information available at: <http://unfccc.int/bodies/body/6431.php> (Accessed: 02 June 2016).

³⁷⁹ UNDP (2008) “the Bali Road Map, Key issues under Negotiations” New York at 29.

³⁸⁰ *Ibid* UNDP (2008); Bali Action Plan available at:

<http://unfccc.int/resource/docs/2012/cop18/eng/08a01.pdf#page=3>. (Accessed: 09 May 2016).

³⁸¹ G. Dutt & F. Gaioli ‘Negotiations and Agreements on Climate Change at Bali’ (2008) 43 (3) *EPW* 11 at 12.

³⁸² ‘A historical change of the USA position towards the developing countries commitments first emerged at Subsidiary Body for Scientific and Technological Advice (5 June 2002), and became clear in COP 8 in November 2002. The USA was no longer calling for developing country commitments but was instead opposing the call for any UNFCCC process to discuss future commitments for any party.’ See Höhne (note 344 above; 26).

³⁸³ Dutt (note 381 above; 13).

was given a negative answer by the majority of developing countries, thus reinforcing their refusal to commit themselves to any quantitative emission reductions.³⁸⁴ In reply several industrial countries came up and made it clear too, that approving the Bali Roadmap will not mean committing themselves to any quantitative emission reduction after 2012.³⁸⁵ The EU's legendary position with respect to developing countries' regime was unmoved.³⁸⁶

In summary, although parties showed clearly what their respective stances towards a new regime for developing countries were, there was nevertheless no significant move recorded. Great expectations for the adoption of a new climate change regime were henceforth put on the next significant COP, announced to be at Copenhagen in 2009.

3.2.5. COP 15: The Copenhagen Accord

3.2.5.1. Objective

The 15th COP was organised from 7 – 19 December, 2009 in the Danish city of Copenhagen.³⁸⁷ It was labelled “the Conference to save the planet”³⁸⁸ due to its focus on the adoption of a new global Accord to cover the period after the first commitment period of the Kyoto Protocol.³⁸⁹ Under such a determination, parties came to Copenhagen to seal a deal,³⁹⁰ that would be a fair, ambitious and equitable agreement to

³⁸⁴ Korhola (note 21 above; 66).

³⁸⁵ *Ibid.*

³⁸⁶ See section 3.1.3.1 above for more details.

³⁸⁷ ‘The Poznan conference in Poland was held in 2008, a year Before Copenhagen. With respect to the Bali Action Plan, the Poznan conference was regarded by some observers as a midpoint towards Copenhagen. Negotiations proceeded in two tracks: 1/ the post 2012 period for industrialized countries that ratified the Kyoto Protocol. It could generate unfortunately no emissions reduction from major emitters such as USA, China, India, and Brazil, being all outside the Protocol. 2/ the second track concerned all the countries parties to the UNFCCC, including USA, China, India, and Brazil the largest emitters worldwide. Discussions here never managed to focus on the global emissions reduction issue, due to the refusal of developing countries who instead chose to hold on to their position of not taking on themselves any emission limitation obligation. It is against this back ground that negotiations took place in Copenhagen the following year’. See Korhola (note 21 above; 69).

³⁸⁸ Information on the conference available at: http://www.huffingtonpost.com/connie-hedegaard/time-is-up-the-deadline-i_b_372691.html. (Accessed: 12 June 2016).

³⁸⁹ IISD (a) ‘Summary of the Copenhagen Climate Change Conference: 7-19 December 2009’ (2009) 12 (459) *Earth Negotiations Bulletin* 2 1. Available at: <http://www.iisd.ca/download/pdf/enb12459e.pdf>. (Accessed: 10 July 2016).

³⁹⁰ D. Bodansky (d) ‘The Copenhagen climate change conference: a post-mortem.’ (2010) 104 (2) *AJIL* 230 230; Information on ‘seal the deal’ the unofficial slogan for the conference available at:

put the world in paths of avoiding dangerous interference with the climate system.³⁹¹ For Yvo de Boer,³⁹² former UNFCCC Executive Secretary, the key deliverables expected under at Copenhagen were, ambitious mid-term emission reductions by developed countries, clear mitigation actions by major developing countries, short and long term finance and climate change governance structures.³⁹³ Parties expected a legally binding agreement to all, in order to meet the goal of limiting the global temperature increase to less than 2 degrees Celsius compared to pre-industrial levels.³⁹⁴

3.2.5.2. Outcomes

Negotiations were conducted under the AWG-KP and the AWG-LCA. Little progress was made under AWG-KP, as developing countries were urging the developed ones to commit themselves to impressive emission reduction targets post 2012, sending them back to their historical accountability, while developed countries stressed that a meaningful response to climate change required the involvement of major emitters from developing countries.³⁹⁵

Under the AWG-LCA, things did not improve. A negotiating text was proposed, taken, but it eventually took the form of a complex document in the history of the UNFCCC, comprising 200 pages which reflected various proposals by all parties and thousands of brackets indicating areas of disagreement between parties.³⁹⁶

Ultimately, the COP 15 produced what came to be known as the “Copenhagen Accord”, signed between only 28 parties out of 167³⁹⁷ among which were the world’s major emitters, and some of the LDC.³⁹⁸ As a consequence of that lack of consensus around its text, the Copenhagen Accord failed to be adopted as a decision by the COP, as per the

<http://www.unep.org/newscentre/multimedia/default.asp?ct=photos&gal=seal> (Accessed: 12 June 2016).

³⁹¹ IISD (a) (note 389 above; 1).

³⁹² Yvo de Boer is a former UNFCCC Executive Secretary from 2006 to 2010. Information available at: http://unfccc.int/secretariat/executive_secretary/items/1200.php. (Accessed: 10 August 2016).

³⁹³ IISD (a) (note 389 above; 27).

³⁹⁴ Carlarne (note 242; 59).

³⁹⁵ IISD (a) note 388 above; 26).

³⁹⁶ *Ibid.*

³⁹⁷ *Ibid.*

³⁹⁸ L. Rajamani (c) ‘The making and unmaking of the Copenhagen Accord’ (2010) 59 *ICLQ* 825 at 825.

standards of the United Nations Organisation.³⁹⁹ COP 15 only “took note” of the Copenhagen Accord, leaving it void of any legal power. Although that had been said, the Copenhagen Accord remained however a key referential document for the future of the climate change regime.⁴⁰⁰ It required developing countries to undertake mitigation actions and developed countries to commit to targets.⁴⁰¹ It was an outline of a future framework to address climate change,⁴⁰² through which signatory parties formally expressed their views about what they expected a post Kyoto Accord to be like. Even though it was a non-binding universal regime, it reiterated the urgency to reduce current emissions in order to achieve the goal of stabilising the global temperature increase to less than 2 degrees Celsius at the end of the 21st century.⁴⁰³

This precisely is what matters most for the present research, focused on the developing countries’ emission mitigation regime shift. Thanks to the Copenhagen Accord, the following rounds of negotiations became more aerated, to the extent that one of the delegates to negotiations commented before leaving the Conference centre as follows:

“If it had been adopted, the Accord would have been an important step forward towards a better and legally-binding outcome”⁴⁰⁴

³⁹⁹ Vienna Convention on the law of treaties 3 May 1966. Available at: <https://treaties.un.org/doc/Publication/UNTS/Volume%201155/volume-1155-I-18232-English.pdf>. (Accessed: 6 June 2016); IISD (a) (note 389 above; J. Wilson ‘No deal at Copenhagen’ (2010) 106 (1/2) SAJSci 128 3 at 3. Available at: <http://sajs.co.za/no-deal-copenhagen/wilson-jessica> (Accessed: 8 May 2016).

⁴⁰⁰ Quoting Aldy et al, Brian Spak, argues that the Copenhagen Accord represents another viable approach to the international climate Policy unlike the Kyoto Style targets and timetables which so far was the only one in town. See B. Spak ‘The success of the Copenhagen accord and the failure of the Copenhagen conference’ (Substantial Research Paper). Available at: <http://www.american.edu/sis/gep/upload/Brian-Spak-SRP-Copenhagen-Success-and-Failure.pdf>. (Accessed: 1 February 2016) 2010 at 38.

⁴⁰¹ Rajamani (c) (note 398 above; 828).

⁴⁰² IISD (a) (note 389 above; 29).

⁴⁰³ Carlarne (note 242 above; 59).

⁴⁰⁴ IISD (a) note 388 above; 29).

3.2.6. COP 16: The Cancun Agreement

3.2.6.1. Objective

The United Nations Climate Change Conference in Cancun, Mexico, took place from 29 November to 11 December 2010.⁴⁰⁵ The focus was on the two-track negotiation process aimed at enhancing long term co-operation under the UNFCCC and the Kyoto Protocol, constituted by the AWG/KP and the AWG/LCA.⁴⁰⁶ Expectations were that Cancun would only produce meaningful progress on some of the key issues including mitigation, adaptation, financing, technology, reducing emissions from deforestation and forest degradation in developing countries, conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+) and on monitoring, reporting and verification (MRV), international consultation and analysis (ICA),⁴⁰⁷ but nothing as such with respect to the new global Accord.

3.2.6.2. Outcome

A text commonly known as the “Cancun Agreement” was adopted, under which developing countries agreed to take based on Nationally Appropriate Mitigation Actions (NAMA) aimed at achieving a deviation in their emissions relative to a business-as-usual scenario by 2020.⁴⁰⁸ In other words, developing countries accepted voluntary commitments covering the period up to 2020.⁴⁰⁹ Although some authors have argued about the Cancun Agreement’s lack of legally binding character,⁴¹⁰ it has produced the regime that is currently governing countries parties to the UNFCCC except those already committed under the Kyoto Protocol’s second commitment period.⁴¹¹

⁴⁰⁵ IISD (b) ‘Summary of the Cancun Climate Change Conference: 29 November -11 December 2010’ (2010) 12 (498) *Earth Negotiations Bulletin* 2 at 1. Available at <http://www.iisd.ca/climate/cop16/enb> (Accessed: 15 July 2016).

⁴⁰⁶ *Ibid.*

⁴⁰⁷ *Ibid.*

⁴⁰⁸ Nationally Appropriate Mitigation Actions are hereinafter referred to as “NAMAs”; IISD (b) (note 404 above; 18).

⁴⁰⁹ A. Marcu ‘Doha/COP 18: gateway to a new climate change agreement’ (2012) *CEPS Commentary* at 2. Available at: <http://aei.pitt.edu/38917/> (Accessed: 30 June 2016).

⁴¹⁰ Liu ‘Legislation and Policy: The Cancun Agreements’ (2011) 13 *ENV L REV* 43 at 43; L. Rajamani (d) ‘The Climate Change Regime in Evolution: The Disagreements that survive the Cancun Agreements’ (2011) *CCRL* 136 at 138-139.

⁴¹¹ Marcu (note 409 above; 2).

The Green Climate Fund (GCF)⁴¹² is an innovation under the Cancun Agreement. The GCF requests developed countries to provide support for preparation and implementation of developing countries' NAMAs.⁴¹³ It also brought formally under the UNFCCC process, the developed countries' mitigation targets and developing countries' mitigation actions decided earlier under the Copenhagen Accord.⁴¹⁴ This recovery of the Copenhagen Accord's outcomes was even praised by some negotiating parties to the extent that one member expressed his excitement in these terms:

“We've managed to bring the main Copenhagen outcomes formally under the UNFCCC—and in some cases, we've gone beyond the Copenhagen Accord and added some flesh to the bones.”⁴¹⁵

Another negotiating party member uttered this comment, in reference to mitigation provisions:

“I would not characterise this outcome as ‘strong, especially concerning mitigation, but it is clearly a positive one.’”⁴¹⁶

Developing countries' position shifted in Cancun as they in majority supported a universal legally-binding outcome.⁴¹⁷ They further expressed concern about the 2°C goal, preferring a 1.5°C goal, proving themselves to be more caring about the global climate.⁴¹⁸ Even groups of climate activists and organisations such as the Umbrella Group,⁴¹⁹ opened up in favour of a universal legally binding treaty. Equally for the EU

⁴¹² The Green Climate Fund (GCF) is an operating entity of the Financial Mechanism of the UNFCCC, under its Article 11. It was established by parties at the convention at COP 16 to support projects, programmes, policies and other activities in developing country Parties. The Fund is governed by the GCF Board. Information available at:

<http://www.greenclimate.fund>. (Accessed: 16 July 2016); decision 1/CP.16 available at:

<http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=17> (Accessed: 16 July 2016).

⁴¹³The actions comprise reducing emissions from deforestation and degradation; conserving forest carbon stocks; sustainable forest management; and enhancing forest carbon stocks (REDD+).

⁴¹⁴ IISD (b) (note 404 above; 29).

⁴¹⁵ *Ibid.*

⁴¹⁶ *Ibid.*

⁴¹⁷ Rajamani (d) (note 410 above; 139).

⁴¹⁸ IISD (b) (note 404 above; 9).

⁴¹⁹ The Umbrella Group is a loose coalition of non-EU developed countries which formed following the adoption of the Kyoto Protocol. Although there is no formal list, the Group is usually made up of Australia, Canada, Japan, New Zealand, Kazakhstan, Norway, the Russian Federation, Ukraine and the US. Information available at:

that opened up for a universal legally binding document including developing countries.⁴²⁰

Although with the Cancun Agreements it became clearer that days were numbered for the liberal emissions regime developing countries enjoyed thus far,⁴²¹ the Conference, however, moved a very small step forward towards reducing global emissions that contribute to climate change.⁴²²

3.2.7. COP 17: The Durban platform for enhanced action

3.2.7.1. Objective

From 28 November – 11 December 2011, parties gathered in Durban, South Africa for the COP 17 with mixed expectations. Many countries felt that “operationalising” the Cancun Agreements was all that the Durban meetings could achieve.⁴²³ Some other countries however expected a balanced and interdependent package of decisions that could resolve the Kyoto Protocol issue, make negotiations move towards a new legally-binding treaty, and make the GCF operational.⁴²⁴ Korhola⁴²⁵ commented on that saying that the COP 17 was one of those meetings from which nothing special was initially expected, but surprisingly ended up yielding meaningful results.

http://unfccc.int/parties_and_observers/parties/negotiating_groups/items/2714.php (Accessed: 20 July 2016).

⁴²⁰ Speaking on behalf of the Umbrella Group, Australia stressed the need for legally-binding commitments by all major economies with differentiation between developed and developing countries and called for COP decisions from Cancun outlining a way forward towards a legally-binding outcome. It expressed flexibility concerning a single new protocol or a combination that involves the continuation of the Kyoto Protocol. It called for a progress on monitoring, reporting and verification (MRV) and international consultation and analysis (ICA). Japan issued a proposal for a single legally-binding instrument in the form of a new protocol. The EU requested clarifying, in Cancun, that the intention is to work towards a legally-binding outcome under the AWG-LCA and reiterated its willingness to commit to a second commitment period under the Kyoto Protocol in the context of a comprehensive global outcome. More details on opening statements available at: <http://www.iisd.ca/vol12/enb12488e.html>. (Accessed: 20 July 2016).

⁴²¹ Rajamani (d) (note 410 above; 138-140).

⁴²² *Ibid.*

⁴²³ IISD (c) ‘Summary of the Durban Climate Change Conference: 28 November -11 December 2011’ (2011) 12 (534) *Earth Negotiations Bulletin* 2 at 29. Available at <http://www.iisd.ca/climate/cop17/enb> (Accessed: 16 July 2016).

⁴²⁴ The green climate fund was established under the COP 16. See note 411 above for more details.

⁴²⁵ Korhola (note 21 above; 77).

3.2.7.2. Outcomes

Durban gave birth to a package of some 20 decisions,⁴²⁶ especially the following two which most were important in contributing towards global efforts for emissions reduction:

- All the countries would start negotiating on a new binding instrument for a global reduction of GHG emissions;
- The EU and some other industrialised countries' acceptance of the extension of their Kyoto Protocol obligations for a second commitment period, spanning from 2013 to 2020.⁴²⁷

a. Outcome related to negotiations for a universal binding instrument

The Durban decisions called for all major emitters – including developing countries such as China, Brazil, and India to set national emissions reduction targets that would be legally binding⁴²⁸ by 2015. Subsequent negotiations were to be conducted under a newly established subsidiary body, The Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP).⁴²⁹ This has been a most significant decision, given that the new universal binding instrument became a major regime shift for developing countries as parties had adopted in December 2015 at Paris a universal Climate Change Agreement.⁴³⁰

⁴²⁶ Twenty decisions were made at COP17. Information about the COP17 decisions is available at http://unfccc.int/meetings/durban_nov_2011/session/6294/php/view/decisions.php. (Accessed: 16 May 2016).

⁴²⁷ Korhola (note 21 above; 77); IISD (c) (note 182; 28).

⁴²⁸ B.B. Subhabrata 'A Climate for Change? Critical Reflections on the Durban United Nations Climate Change Conference' (2012) 33(12) *Organization Studies* 1761 at 1765.

⁴²⁹ 'The Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) is a subsidiary body that was established by decision 1/CP.17 in Durban 2011, pursuant to article 17 of the UNFCCC. Its mandate is to develop a protocol, or another legal instrument, or an agreed outcome with legal force under the UNFCCC that will be applicable to all Parties, which was to be completed no later than 2015 in order for it to be adopted at COP21 in Paris 2015, and that will come into effect and be implemented from 2020.' Information available at: <http://unfccc.int/bodies/body/6645.php>. (Accessed: 20 May 2016).

⁴³⁰ For details on the 2015 Paris Agreement, see chapter five below; IISD (c) (note 182; 28).

b. Outcome related to the Kyoto Protocol extension

The EU agreed to commit itself for a second commitment period of the Kyoto Protocol. The decision was a proof about the inclusion of all developing countries in a post Kyoto emissions reduction binding regime. The inclusion of all major emitters from developing countries was a prerequisite imposed by the EU before its acceptance of any new commitment period under the Kyoto Protocol.⁴³¹ The inclusion of developing countries, especially China, India and Brazil for a legally binding emission scheme was equally meaningful for the USA, for as long as, the country claimed its meaningful participation in the global emissions reduction efforts, even if as said above, the USA no longer claimed the same position in COP 17.⁴³²

EU leaders however described the Durban outcome in many ways. It was described as a historic achievement, a watershed, a moment surpassing the success of COP1 in 1995 and the meeting that led to the creation of the Kyoto Protocol two years later.⁴³³ Environmental civil society actors were, however, critical, qualifying Durban outcomes to be a flaw⁴³⁴ because of the lack of binding emissions cuts, in contradiction to the statutory mandate of any COP meeting.⁴³⁵ Their overall claim was that the platform did not advance the world any further in solving the climate change challenge:

“Disastrous and profoundly distressing, Durban summit was nothing more than smoke and mirrors – an illusion of ambition with no real targets or time lines”,⁴³⁶ ‘A compromise which saves the climate talks but endangers people living in poverty’,⁴³⁷ ‘Durban Platform can only be described as a major disappointment”, said Charveriat.⁴³⁸

⁴³¹ See section 3.1.4 above on the Bali conference.

⁴³² See section 3.1.3.1 above on the USA emissions mitigation position.

⁴³³ D. Keating ‘A climate deal against the odds’ (December 2011) *European Voice* at 15. Available at: www.europeanvoice.com/article/imported/a-climate-deal-against-the-odds-/72961.aspx (Accessed: 2 May 2016).

⁴³⁴ The green groups especially were the authors of the critics. Green Groups refer to Coalitions of environmental organisations for the defence of the Environment. See for example the green group organisations in the State of Missouri/USA. Available at: <http://moenvironment.org/get-involved/green-groups-in-missouri> (Accessed: 15 January 2016).

⁴³⁵ Subhabrata (note 428 above; 1765).

⁴³⁶ Statement from Mr. Mohamed Adow, a representative of the NGO Christian Aid at that time. See Subhabrata (note 428 above; 1770).

⁴³⁷ *Ibid.*

⁴³⁸ Statement from Celine Charveriat, Director of advocacy for Oxfam at that time. See Subhabrata (note 428 above; 1770).

It is against such a context of diverging opinions about COP17 that countries parties to the UNFCCC moved forward to the next round of negotiations which was the COP18.⁴³⁹

3.2.8. COP 18: The Doha Climate Gate Way

3.2.8.1. Objective

Held from 26 November to 8 December 2012 in Doha, Qatar, the COP 18 was qualified as “transitional” by some observers,⁴⁴⁰ as the forum was mainly about getting parties to move forward on a path towards adopting a universal climate agreement by 2015, and adopting a second commitment period for the Kyoto Protocol. Other COP18 objectives included the issues of dismissing the two Ad Hoc Working Groups (the AWG-KP⁴⁴¹ and AWG-LCA⁴⁴²) whose missions came to an end,⁴⁴³ and progress on long term funding mechanism to support climate action in developing countries (supposed to reach US\$100 billion a year by 2020) as per the Copenhagen agreement at COP 15.⁴⁴⁴

3.2.8.2. Outcomes

Negotiations in Doha focused rather on ensuring the implementation of agreements reached at previous UNFCCC forums.⁴⁴⁵ The “Doha Climate Gateway” decisions were adopted as outcomes from the Conference. The “Doha Climate Gateway” included the strengthening of governments’ positions in setting out a time frame for the adoption of a universal climate agreement by 2015, which would come into effect in 2020. During the Conference, the World Bank released a report entitled "Turn down the Heat: Why a 4°C Warmer World Must Be Avoided". The Report stated that the world was on track towards a 4°C temperature rise at the end of the 21st century, should the currently

⁴³⁹ IISD (d) ‘Summary of the Doha Climate Change Conference: 26 November -8 December 2012’ (2012) 12 (567) *Earth Negotiations Bulletin* 2 at 1. Available at <http://www.iisd.ca/climate/cop18/enb> (Accessed: 16 July 2016).

⁴⁴⁰ *Ibid*

⁴⁴¹ See note 377 above.

⁴⁴² See note 376 above.

⁴⁴³ IISD (d) (note 439 above; 26).

⁴⁴⁴ *Ibid*.

⁴⁴⁵ IISD (d) (note 439 above; 1).

inadequate level of ambition remain.⁴⁴⁶ The Doha Climate Gateway echoed that evidence by reaffirming that all countries needed to increase national ambitions to GHGs.⁴⁴⁷

Doha has been a turning point for developing countries negotiating groups.⁴⁴⁸ They started looking at the future of climate change talks from different perspectives and further formed the following sub-coalition within traditional negotiation groups:

- The Association of Independent Latin American and Caribbean states (AILAC) group: very supportive to the idea that a strong and robust Convention applicable to all was the most effective way to achieve the objective of remaining below 2°C temperature increase.⁴⁴⁹
- The “like minded group on climate change”⁴⁵⁰ was more concerned about the apparent developed countries’ deviation from the original spirit of the UNFCCC. The group gave itself the goal of upholding the Convention’s principles of

⁴⁴⁶ Report “Turn down the heat: Why a 4°C warmer world must be avoided”. Available at: <http://www.worldbank.org/en/topic/climatechange>. (Accessed: 10 July 2016).

⁴⁴⁷ Information available at: http://unfccc.int/key_steps/doha_climate_gateway/items/7389.php (Accessed: 10 July 2016).

⁴⁴⁸ See section 3.1.1.1 of early days of Climate Change awareness.

⁴⁴⁹ The Independent Association of Latin America and the Caribbean (AILAC) is a group of seven countries (Chile, Colombia, Costa Rica, Guatemala, Panama, Paraguay and Peru) that share interests and positions on climate change. It was established as a formal negotiating group under the UN Framework Convention on Climate Change in December 2012, during the Conference of the Parties in Doha, Qatar. Its main objective is to generate coordinated, ambitious positions and contribute to the balance in the multilateral negotiations on climate change with a coherent vision for sustainable development that is responsible to the environment and future generations. Information available at: <http://ailac.org/en/sobre/> (Accessed: 10 July 2016).

⁴⁵⁰ The Like Minded Developing Countries on climate change (LMDCs) is a spontaneous coalition of 24 countries created at the Bonn Climate Change Conference in May 2012. It is part of G77 + China which it aims to strengthen and unify. It comprises several Arab countries, India, China, several emerging Asian economies and some active parties from the Caribbean and South America, including Venezuela, Bolivia and Cuba. The group, which brings together over half of the world’s population, has no official presidency but Malaysia acts as its spokesperson. Their concern is regarding the shifting of the financial burden to developing countries and the attempt to expand the list of countries with obligations under the Convention (UNFCCC) to provide climate finance, and at the same time shrink the list of countries eligible for receiving climate finance. They also called on the developed countries “to provide a clear roadmap for the fulfilment of the \$100 billion per year by 2020”. Information available at: <http://www.cop21.gouv.fr/en/whats-the-use-of-the-country-coalitions/> (Accessed: 30 July 2016); see also <http://indianexpress.com/article/world/climate-change/after-like-minded-developing-countries-meet-prospects-for-climate-change-negotiations-appear-bleak/>. (Accessed: 30 July 2016).

“CBDR”, as well as the developed countries’ historical accountability for climate change.⁴⁵¹

3.2.9. COP 19: The Warsaw Outcomes

3.2.9.1. Objective

Convened in a backdrop of urgency,⁴⁵² COP 19 in Warsaw/Poland took place from 11-23 November 2013. It was halfway between the Durban COP 17 (which produced the ADP) and the 2015 COP 21 in Paris, the deadline for the signing of a universal binding climate change agreement. At Warsaw, parties’ progress towards pre-2020 emission reduction ambitions seemed shrunken despite the growing evidence about the need for drastic emissions cut and repeated calls for urgent action.⁴⁵³ However, debates focused on intensifying the work on the content of the 2015 universal climate change agreement, and on concrete outcomes on pre-2020 GHG mitigation ambition through Intended Nationally Determined Contributions that countries had to submit on the course of 2015.⁴⁵⁴

⁴⁵¹ Information available at: <http://indianexpress.com/article/world/climate-change/after-like-minded-developing-countries-meet-prospects-for-climate-change-negotiations-appear-bleak/>. (Accessed: 30 July 2016).

⁴⁵² The following events are the major facts constituting the backdrop against which the Warsaw climate change conference was convened. Those factors have been significantly influential on the conference and its outcomes:

1. In 2012, during the Doha Climate Change Conference, Typhoon Bopha ravaged the Philippines.
2. In 2013, at the opening of the Warsaw Climate Change Conference, Super typhoon Haiyan, the strongest storm to ever make landfall, ravaged the Philippines again.
3. Few weeks before the Conference, the scientific community issued a “clarion call” that climate change was unequivocal and its effects were evident in many parts of the world, including flooding in the Middle East and Europe, and prolonged droughts in the US and Australia.
4. Two months before the COP, the IPCC-WGI concluded that human influence on the climate system was clear, and limiting climate change would require substantial and sustained reductions of GHG emissions.
5. The World Meteorological Organization confirmed that 2013 was among the top ten warmest years on record and that melting ice caps and glaciers brought global sea level to a new record high 452.
6. Many other reports showed how paltry the international response then was.
7. The UNEP Emissions Gap Report showed an increase in emissions in 2013, noting that the opportunities for reaching the 2°C goal are closing and warned against the costs of inaction. See IISD (e) ‘Summary of the Warsaw Climate Change Conference: 11 November – 23 November 2013’ (2013) 12 (594) *Earth Negotiations Bulletin* 2, at 27. Available at <http://www.iisd.ca/climate/cop18/enb> (Accessed: 16 July 2016).

⁴⁵³ IISD (e) (note 452 above; 30).

⁴⁵⁴ ‘In anticipation of the adoption of the Paris Agreement, countries publicly outlined what post-2020 climate actions they intended to take under the new international agreement. Those actions are known as

The two objectives were crucial as they were simultaneously aimed at giving back enough confidence towards the UNFCCC process as the relevant forum for climate change negotiations.⁴⁵⁵

3.2.9.2. Outcomes

No decision was taken with regard to the issue of a new regime for developing countries. Discussions went on about revising the traditional differentiation between developed and developing countries.⁴⁵⁶ A key demand from developed countries for the 2015 universal climate change agreement was that it may take into consideration fundamental changes in the global economy since the adoption of the UNFCCC in 1992,⁴⁵⁷ seeing that some developing countries such as the Republic of Korea, China, Brazil and India, classified Non-Annex I countries under the UNFCCC, were worldwide economic power houses in 2013, with important associated GHG emissions.⁴⁵⁸

Developing countries were however divided upon the matter.⁴⁵⁹ The LMDC group⁴⁶⁰ was supportive to the reflection of the traditional Annex I/Non-Annex I distinction in any future agreement,⁴⁶¹ whereas the AILAC group⁴⁶² sought instead for the differential

their Intended Nationally Determined Contributions (INDCs). The climate actions communicated in these INDCs largely determine whether the world achieves the long-term goals of the Paris Agreement, which is to hold the increase in global average temperature to well below 2°C, and pursue efforts to limit the increase to 1.5°C, and to achieve net zero emissions in the second half of this century.' Information available at: <http://www.wri.org/indc-definition>. (Accessed: 10 October 2016); 'Further to the negotiations under the Ad Hoc Working Group on the Durban Platform for Enhanced Action, the Conference of the Parties, by its decision 1/CP.19, invited all Parties to initiate or intensify domestic preparations for their INDCs towards achieving the objective of the Convention as set out in its Article 2, without prejudice to the legal nature of the contributions, in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties.' Information available at: http://unfccc.int/focus/indc_portal/items/8766.php. (Accessed: 8 May 2016); Decision 1/CP.19 2014 UNFCCC available at:<http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf#page=3>. (Accessed: 8 May 2016).

⁴⁵⁵ IISD (e) (note 213; 30).

⁴⁵⁶ *Ibid.*

⁴⁵⁷ IISD (e) (note 213; 29).

⁴⁵⁸ Winkler (a) (note 35 above; 469).

⁴⁵⁹ *Ibid.*

⁴⁶⁰ See note 449 above for more details on the LMDC group.

⁴⁶¹ IISD (e) (note 213 above; 29).

⁴⁶² See section 3.1.8.2 above for more details the AILAC group.

treatment to be extended to the group of developing countries, with more national diverse circumstances and economic situations.⁴⁶³

It eventually turned out that the 2015 agreement was developing with a purely “bottom-up” approach, meaning that the responsibility was going to lie on a state to itself delineate the extent and nature of its contributions towards the GHG global abatement. The bottom-up approach is in contrast to the top down approach, through which legally binding emissions reduction targets are statutory commitments provided to parties by the treaty as it is the case for the Kyoto Protocol.⁴⁶⁴ With the bottom up approach under the Warsaw outcomes, Global emissions reduction were going to depend on countries’ contributions, through the “Intended Nationally Determined Contributions (INDC)”.⁴⁶⁵ However, after considering the inefficiency of the submitted national pledges, under which the aggregated global pledges remained inferior to the cut needed, negotiating parties opposed each other upon the term “contributions” (as opposed to “commitments”), and ended up leaving unresolved the question of a differential treatment between countries under the upcoming Paris regime.⁴⁶⁶

As for the ambiguity of the term “contribution” within the phrase “INDC”, Bodansky⁴⁶⁷ further understood parties’ fears and explained that they were right, as long as “contribution” from a certain country could lawfully take the form of adaptation, finance, technology transfer or capacity building contributions, which have nothing to do with emissions limitation, and in which case the country would have done nothing in cutting its emissions reduction yet as the object of the discussions.

⁴⁶³ Winkler (a) (note 35 above; 469).

⁴⁶⁴ See section 2.3 above on the CBDR.

⁴⁶⁵ See section 5.3.8.2 below for details about the INDC.

⁴⁶⁶ Also decried by the IPCC and the UNFCCC secretary which has mandate to compile all the INDC; IISD (e) (note 213; 29).

⁴⁶⁷ D. Bodansky (f) ‘The Paris Climate Change Agreement: A New Hope?’ Draft (March 2016) at 14-15. Available at: <https://conferences.asucollegeoflaw.com/workshoponparis/files/2012/08/AJIL-Paris-Agreement-Draft-2016-03-26.pdf>. (Accessed: 17 August 2016).

3.2.10. COP 20: The Lima Call to Action

3.2.10.1. Objective

The 20th Climate Change Conference was convened from 1-14 December 2014, in Lima, Peru, the last COP before the 2015 Paris forum for the adoption of a new universal treaty. The objectives included first; the elements of a draft of the future 2015 climate change agreement; secondly the definition of the information to be submitted as part of parties' INDC in 2015; thirdly, a concrete plan for the pre-2020 period, comprising compliance actions with respect to existing obligations, and steps forward in the implementation of policy options that have the greatest mitigation potential.⁴⁶⁸ However, parties' preoccupations were mainly turned towards the drafting of the future Paris Agreement, as this was going to determine the future regime to be applied to them all.⁴⁶⁹

3.2.10.2. Outcomes

The important thing one captures for developing countries that permeated the negotiations in Lima was the issue of how the CBDR principle was going to be reflected in the 2015 agreement.⁴⁷⁰ The Like Minded Group on Climate Change maintained that there should be differentiation, both in the 2015 agreement and for the INDCs, in accordance with parties' obligations under the UNFCCC;⁴⁷¹ approaching the adoption of a universal change agreement, developing countries ultimately attempted to avoid to take on any emissions limitation obligations by recalling developed countries' climate change historical accountability, on the light of their legendary interpretation of the CDBR and Equity Principle.⁴⁷²

The USA was on its side supportive of a differential approach that takes into account various prevailing national circumstances, as many developing countries had radically

⁴⁶⁸ IISD (e) (note 213; 43).

⁴⁶⁹ *Ibid.*

⁴⁷⁰ *Ibid.*

⁴⁷¹ *Ibid.*

⁴⁷² IISD (f) 'Summary of the Lima Climate Change Conference: 01 December - 14 December 2014' (2014) 12 (619) *Earth Negotiations Bulletin* 2 at 37. Available at <http://www.iisd.ca/climate/cop20/enb> (Accessed: 16 July 2016); See also section 2.3 below on the CBDR.

developed their economies since 1992,⁴⁷³ whereas other developed countries such as Japan, New Zealand, Australia, Switzerland and Canada squarely opposed recreating binary divisions on commitments, based on the distinction between developed and developing countries.⁴⁷⁴ Arguably, the ‘Lima Call for Climate Action’ has ended up being the final jump over the fire wall of differentiation between developing and developed countries, as it became almost certain that the next climate change regime was not going to be based on it.⁴⁷⁵

3.3. Evolution of the climate change regime legal approach

3.3.1. Overview

As mentioned earlier, the international climate change regime was established by the UNFCCC and the Kyoto protocol. The prevailing international context at the time the UNFCCC was adopted in 1992 has abundantly evolved over the years, pushing countries parties to also adjust their positions during negotiations.⁴⁷⁶ Many factors are behind such changes, including the economic development of some of the developing countries,⁴⁷⁷ and the call for further actions to limit the global temperature increase to below 2°C at the end of the current century.⁴⁷⁸ The Kyoto Protocol had to set up emission limitation targets for countries to comply with, whereas its successor the 2015 Paris Agreement simply requires them to set up their own mitigation targets. This stark difference marks a new era for the international climate change regime. This section will review the progression towards the 2015 Paris Agreement, the new regime, and analyses the drivers behind the abandonment of the former legal approach, the top down, under the Kyoto Protocol, in favour of the new approach, the bottom up, under the 2015 Paris Agreement. Advanced Analysis on the regimes will be the subject of chapter five below.

⁴⁷³ Korhola (note 21 above; 48).

⁴⁷⁴ IISD (f) (note 234 above; 37).

⁴⁷⁵ IISD (f) (note 234 above; 44).

⁴⁷⁶ See sections 2.2 and 3.1 above.

⁴⁷⁷ *Ibid.*

⁴⁷⁸ See section 3.1 above.

3.3.2. The UNFCCC and the Kyoto Protocol's legal approaches

The success of any international agreement depends on its domestication and appropriate implementation at country level.⁴⁷⁹ An international agreement therefore has to be as flexible as possible to give consideration to negotiating countries' claims. Depending on the object, some international agreements will define and provide for particular policies and measures that parties must undertake at country level; they choose a top down approach.⁴⁸⁰ A bottom-up approach is when the Agreement allows each member state to freely and unilaterally define its own commitments in order to comply with the provisions or objectives of the treaty.⁴⁸¹

The UNFCCC, included aspects of both approaches,⁴⁸² as some scholars argue noting that Article 4.1 reflects a bottom-up approach,⁴⁸³ as it requires all parties to develop and report on national policies and measures to combat climate change,⁴⁸⁴ Article 4.2 reflects rather a top down architecture,⁴⁸⁵ setting forth a non-binding target for developed countries to abate their emissions to 1990 levels by the year 2000.⁴⁸⁶

The Kyoto Protocol rather espoused the top down approach, by establishing legally binding emissions limitation targets for each developed country to reduce national emissions comparatively to 1990 levels.⁴⁸⁷ Although requiring states to adopt particular mitigation policies and measures such as efficiency standards, its emissions targets nevertheless are to be carried out through emissions mitigation machineries provided inside the Protocol itself.⁴⁸⁸

⁴⁷⁹ I. Plakokefalos 'Process and rules in international environmental law' (2012) 10 (297) *S CJInt'l L* 297 at 297; Diringer (note 368 above; 292).

⁴⁸⁰ *Ibid.* Diringer at 291.

⁴⁸¹ J. Dirix *et al* 'Strengthening bottom-up and top-down climate governance' (2013) 13 (3) *Climate Policy* 363 at 365.

⁴⁸² Bodansky (b) (note 90 above; 6).

⁴⁸³ Article 4 of the UNFCCC.

⁴⁸⁴ *Ibid.*

⁴⁸⁵ *Ibid.*

⁴⁸⁶ Bodansky (b) (note 90 above; 6).

⁴⁸⁷ Article 3 of the Kyoto Protocol.

⁴⁸⁸ Bodansky (b) (note 90 above; 7).

After the entry into force of the Kyoto protocol, climate change negotiators progressively looked at what the after Kyoto Protocol would look like.⁴⁸⁹ Discussions in subsequent conferences were balancing between the two approaches, as groups of countries stood in positions often opposing,⁴⁹⁰ depending on their own national interests.

History recalls that even before the adoption of the UNFCCC,⁴⁹¹ countries were already divided on which approach to adopt for a possible climate change treaty.⁴⁹² Western European countries proposed and supported an international regime of quantitative greenhouse gas emissions reduction targets and timeframes to curb emissions (the top down approach),⁴⁹³ while the US, Japan and the Soviet Union opposed such regime on the grounds that states should rather focus on developing national programmes and strategies consisting of concrete policy measures (the bottom up approach).⁴⁹⁴

3.3.3. The evolution towards a new legal approach after the Kyoto Protocol

Under the first commitment period of the Kyoto Protocol, the European western countries still proved to be supportive of the top down approach.⁴⁹⁵ They assumed a leadership role for the implementation of the Kyoto Protocol pursuant to Article 3.1 of the UNFCCC,⁴⁹⁶ further took necessary steps to comply with Annex I commitments, and later accepted to take on its second commitment period.⁴⁹⁷ The United States on the contrary had proved to be supportive of the bottom up approach, to the extent of its withdrawal from the Kyoto protocol's regime, arguing that it was irrelevant to

⁴⁸⁹ W.D. Nordhaus ‘After Kyoto: alternative mechanisms to control global warming.’ (2006) 96 (2) *The American economic review* 31 at 31.

⁴⁹⁰ Bodansky (b) (note 90 above; 6).

⁴⁹¹ Nordhaus (note 489 above; 31)

⁴⁹² Bodansky (b) (note 90 above; 6).

⁴⁹³ *Ibid.*

⁴⁹⁴ Noordwijk Declaration on Atmospheric Pollution and Climate Change (7th Nov 1989) 12 Int'l Envtl at 624.

Available at:

<https://books.google.co.za/books?hl=fr&id=zI0RAQAAIAAJ&focus=searchwithinvolume&q=NOORDWIJK+DECLARATION>. (Accessed: 12 April 2016); Bodansky (b) (note 90 above; 6).

⁴⁹⁵ Dutt (note 381 above; 276).

⁴⁹⁶ Article 3.1. of the UNFCCC states: ‘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.’

⁴⁹⁷ Dutt (note 381 above; 276).

effectively deal with the climate change challenge.⁴⁹⁸ Comparable behaviours are seen in Japan and Russia, other supporters of the bottom up approach who complied not with the first commitment period of the Kyoto Protocol, and abstained to join its second commitment period.⁴⁹⁹

From the top down approach under the Kyoto Protocol, parties ended up shifting into a bottom up approach in the 2015 Paris Agreement. As said above, the Paris Agreement was the culmination of a major regime change process that started under the Bali Road Map,⁵⁰⁰ formalised under the Copenhagen Accord,⁵⁰¹ and made legal under the Cancun Agreement.⁵⁰² On the course of negotiations leading to the 2015 Paris Agreement, there were evidential signs of the rise of a new legal approach, expected to be different from the so called unfit approach that was under the Kyoto Protocol.⁵⁰³ During key steps of the negotiations, parties were either supportive to, adherent to, or simply tolerant to the bottom up approach as the looming legal form of the future climate change regime, thanks to which a broader acceptance and compliance could be secured.⁵⁰⁴

From 1992 to 2015, countries parties had greatly learned about adequate responses to administer to climate change.⁵⁰⁵ They had also learned from some of the mistakes committed in the past while implementing the current climate change regime.⁵⁰⁶ Could it be that perhaps, the accumulation of experience is constitutive of the rationale behind the climate change regime shift? As mentioned by Kidd⁵⁰⁷ when analysing the historical evolution of environmental law:

“Ten years into the twenty-first century, environmental issues are prominent in people’s minds and they dominate political agendas”

⁴⁹⁸ J. Urpelainen ‘A model of dynamic climate governance: dream big, win small’ (2013) 13 (2) *IEA: PLE* 107 at 125.

⁴⁹⁹ *Ibid.*

⁵⁰⁰ R. Cléménçon ‘The Bali road map, a first step on the difficult journey to a post-Kyoto protocol agreement.’ (2008) 17 (1) *The Journ of Env & Dev* 70 at 70.

⁵⁰¹ IISD (b) (note 404 above; 29).

⁵⁰² *Ibid.*

⁵⁰³ Refer to chapter five below for more details.

⁵⁰⁴ Refer to sections 5.1, 5.2, and 5.3 below for more details.

⁵⁰⁵ See section 2.1 above on the reasons for concern about the climate change.

⁵⁰⁶ Refer to notes 654 and 655 below for more details.

⁵⁰⁷ Kidd (note 306 above; 1).

It is therefore understandable that a subject of such a broad concern as the climate change may benefit from various inputs of diverse stakeholders and could mature over time. The global context, also, as exposed above has abundantly evolved compared to what it used to be years ago, in the extent that some of the factors that justified parties' stances in the past are no longer at play today. Similarly, other factors have either gained meaningfulness, or have squarely erupted as new factors at play in the climate change arena.⁵⁰⁸ In this regard, one can admit that the 2015 Paris Agreement may have capitalised from the rich experience of a quarter century of climate change dealings, compared to the pioneering experience of the UNFCCC in 1992.⁵⁰⁹

An abundant literature is concordant on the fact that the following factors have significantly evolved since the entry into force of the UNFCCC in 1992 and the Kyoto Protocol in 1997 up to the time of the adoption of the Paris Climate Agreement in 2015:

- Climate change awareness: as the subject of climate change is no longer breaking news, but rather a well-known concern in the public opinion, has risen cross sectorial concerns. Fear persists with respect to its unpredictable human, environmental, and material consequences;⁵¹⁰
- Certainty about climate change to be a human induced phenomenon: There is at present 95 percent of certainty that climate change is a human induced phenomenon, from the uncertainty reported by the IPCC in its 1990's first

⁵⁰⁸ See section 2.1 above.

⁵⁰⁹ Refer to notes 654 and 655 below.

⁵¹⁰ Kidd (note 306 above; 1); 'Climate change has eventually become a key subject during countries political campaigning. A 5 July 2016 American post reads as follows: 'The race for the White House is failing to grapple with the key issues of the day, especially the urgent need to combat climate change before atmospheric changes become irreversible', a slice of the American electorate believes. As the primary election season turns toward a head-to-head between Hillary Clinton and Donald Trump, there is increasing anger and frustration over the nature of the contest. A Guardian call-out to online readers in the US asking them to reflect on the race so far was met by a barrage of criticism on the tone and substance of the world's most important election – with the two main parties, individual candidates and the media all coming under heavy fire. The Guardian asked readers to identify the 'one issue that affects your life you wish the presidential candidates were discussing more'. Resoundingly, the largest group of participants pointed to climate change. Of the 1,385 who responded to the call-out – from all 50 states – one in five expressed discontent at the relative silence from candidates around a subject that they believed to be of supreme and epochal importance.' Information available at: <https://www.theguardian.com/us-news/2016/jul/05/climate-change-voters-2016-election-issues> (Accessed: 20 July 2016); an analysis conducted by Greenpeace international reveals that the Governing Party ANC in South Africa has enshrined climate change concerns in its manifesto and has listed the measures they are proposing. Information available at: <http://www.greenpeace.org/africa/en/News/news/Climate-change-renewable-energy-municipal-elections-2016/#note1> (Accessed: 2 August 2016).

assessment report.⁵¹¹ It remains to work and advance the understanding and reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing, economic, and social consequences of climate change and its various alternative response strategies;⁵¹²

- The urgency to reduce current GHG emissions, in order to achieve the goal of stabilising the global temperature increase to 2 degrees Celsius at the end of the present century;⁵¹³
- The increasing trade and economic concerns over climate change: The predominance of trade concerns and economic considerations over environmental and human repercussions of climate change during climate change negotiations;⁵¹⁴
- The application of the CBDR and Equity Principle: The increasing call for an interpretation of the CBDR and Equity Principle that takes into account current countries' respective capabilities,⁵¹⁵ the call for the inclusion of new major polluters from developing countries in a binding emissions reduction regime;⁵¹⁶
- The progressive fall of the traditional cleavage between developed and developing countries: applied in the UNFCCC, parties opted for the drop out of the traditional differentiation between countries in any future climate change regime;⁵¹⁷
- The progressive abandon of countries' support to the top down approach under the Kyoto Protocol⁵¹⁸ and the emergence of the bottom up approach through the INDC strategy brought by the Bali Road Map and subsequent COP decisions.⁵¹⁹

⁵¹¹ See note 126 above.

⁵¹² Article 4.1 (g) of the UNFCCC.

⁵¹³ IPCC 2014 (b) (note 73 above; v).

⁵¹⁴ L. Tamiotti *et al* 'Commerce et changement climatique' (2009) *OMC & PNUE* at vii-xii. Available at: https://www.wto.org/french/res_f/booksp_f/trade_climate_change_f.pdf. (Accessed: 12 October 2016).

⁵¹⁵ Brunnée (a) (note 153 above).

⁵¹⁶ *Ibid.*

⁵¹⁷ Refer to section 5.3.7 for more details.

⁵¹⁸ Dutt (note 381 above); Diringer (note 368 above; 292).

⁵¹⁹ Cléménçon (note 500 above; 70).

3.4. Conclusion

The regime instituted by the 1997 Kyoto Protocol will no longer be in power after the entry of the 2015 Paris Agreement in 2020 into force. For developing countries, the regime under the Paris Agreement represents a major regime shift, as all countries are expected to mitigate national emissions. Based on both the CBDR and the historical responsibility of developing countries on the aggravation of atmospheric concentration of GHG, developing countries went on as free from any binding emission limitation scheme while developed countries were bound. Almost a quarter of a century after the adoption of the climate change regime represented by both the UNFCCC and the Kyoto Protocol, countries parties' national circumstances have significantly evolved. Climate change knowledge is relatively satisfying today, with 95 percent of certainty of climate change to be a human induced phenomenon. Developing countries are classified today among the biggest emitters worldwide, in contrast with what they used to be in 1992. The call for further actions to curb GHG emissions was launched by the IPCC in order to limit the global temperature increase to a maximum of 2 degrees Celsius at the end of this century, hence the justification for the need for a global contribution to the effort to tackle climate change. During subsequent rounds of negotiations leading to the 2015 Paris Agreement, the Kyoto Protocol's top down legal approach was successfully challenged in favour of the bottom up approach, and the fire wall of differentiation between developed and developing countries collapsed. Enriched by nearly 25 years of climate change negotiations and regimes implementation, this probably is an opportunity to deeply analyse both the meaning and the applicability of the Common But Differentiated Responsibility Principle, especially in a context of a unique regime that is applicable to all.

CHAPTER IV: THE GREENHOUSE GASES EMISSIONS MITIGATION REGIME FOR DEVELOPING COUNTRIES UNDER THE KYOTO PROTOCOL

4.1. Introduction

After the adoption of the UNFCCC, the urgency to address the climate change threat brought to the fore the issue of which countries had to take, which the responsibility for the reduction of the greenhouse gas (GHG) emissions under the UNFCCC climate change regime.⁵²⁰ As previously discussed, developed countries were finger pointed, because of their acknowledged historical responsibility for climate change, while developing countries had nothing substantial that was required from them.⁵²¹ Differential climate change responsibility constitutes the substance of the 1997 Kyoto Protocol, under which the world's wealthier countries alone assumed binding commitments to reduce greenhouse gas emissions, whereas developing countries collectively enjoyed a regime of emissions limitation exemption, besides the UNFCCC's timid exhortation which addressed them to voluntarily consider ways to abate their emissions.⁵²² While proponents of the Kyoto Protocol celebrated it as a breakthrough in international climate policy, its opponents saw in it as a flawed treaty, complaining especially about its differential approach because of which the protocol set emissions limitations to developed countries only, whereas addressing climate change required a global participation of all countries, including the developing ones.⁵²³ This chapter presents a brief analysis of developing countries emission mitigation obligations under the Kyoto Protocol. In the first stage, the chapter briefly gives a background that helps to understand the negotiation dynamics and the context of the adoption of the Protocol,

⁵²⁰ A. M. Halvorssen (a) 'Common, but differentiated commitments in the future climate change regime-amending the Kyoto Protocol to include Annex C and the Annex C mitigation fund' (2007) 18 *Colo. J. Int'l Envtl. L. & Pol'y* 247 at 247.

⁵²¹ See the preamble of the UNFCCC.

⁵²² M. Babiker *et al* 'The Kyoto Protocol and developing countries' (2000) 28 (8) *Energy Policy* 525 at 525.

⁵²³ C. Böhringer 'The Kyoto protocol: a review and perspectives' (2003) 19 (3) *Oxf. Rev of Eco Pol* 451 at 451.

before discussing in the second stage the key provisions which define the developing countries emission mitigation regime.

4.2. Background of the Kyoto Protocol

The first Conference of the parties to the UNFCCC (COP1) was held from the 28th of March to the 7th of April 1995 in Berlin, Germany, under the chairmanship of Mrs A. Merkel.⁵²⁴ COP 1 produced the Berlin Mandate,⁵²⁵ which in turn gave birth to the Kyoto Protocol.⁵²⁶ However, most of the framework conventions are procedural in nature, because they only establish the legal and institutional framework that allow further adoption of protocols or other more substantive and concrete treaties for the fulfilment of their objectives.⁵²⁷ The UNFCCC was no exception to that rule, because it did provide for general commitments to countries with respect to emissions mitigation, but failed to give further details with that regard as it is under the Kyoto Protocol.⁵²⁸ Korhola⁵²⁹ thinks that it was so because countries that negotiated the UNFCCC usually pushed aside most of the difficult questions, and considered solely the issues which were possible to agree upon at that time. This explains why an issue such as the allocation of binding emission mitigation targets to country parties was not dealt with under the UNFCCC, but rather waited for future COP forums and outcomes for it to be addressed.

However, as soon as country parties started implementing the UNFCCC, and discussing about the international climate change regime within the frame of the UNFCCC, they

⁵²⁴ Angela Dorothea Merkel is a German stateswoman and former research scientist. She has been the Chancellor of Germany since 2005, and the leader of the Christian Democratic Union since 2000. At the time of the COP 1, she was the German Minister of Environmental Affairs. Information available at: <http://www.biography.com/people/angela-merkel-9406424>. (Accessed: 23 October 2016).

⁵²⁵ ‘At the COP 1 held in Berlin, in 1995, parties agreed that the commitments in the UNFCCC were “inadequate” for meeting the Convention’s objective. In a decision known as the “Berlin Mandate”, countries agreed to establish a process to negotiate strengthened commitments for developed countries.’ Information available at: <http://unfccc.int/documentation/decisions/items/2964.php>. (Accessed: 23 October 2016). The Berlin Mandate is available at: <https://unfccc.int/resource/docs/cop1/07a01.pdf>. (Accessed: 15 June 2016).

⁵²⁶ J. Brunnée (b) “Europe, the United States, and the global climate regime: all together now?” (2008) 24 (1) *Journal of LU & Env. Law* 1 at 2.

⁵²⁷ D. Bodansky & L. Rajamani (e) ‘The evolution and governance architecture of the climate change regime. International Relations and Global Climate Change: New Perspectives’ (2016) 2nd Ed. Forthcoming at 11; Korhola (note 21 above; 47).

⁵²⁸ See Article 4 of the UNFCCC.

⁵²⁹ Korhola (note 21 above; 197).

quickly noticed that its commitments were inadequate to meet its ultimate objective of stabilising the concentration of greenhouse gas in the atmosphere at levels that would be harmless to the climate system.⁵³⁰ Parties therefore decided to take on more concrete mitigation actions in order to supplement the Convention's vague commitments with more specific and quantified obligations, besides coherent time frames for actions.⁵³¹ Under the "Berlin Mandate" as mentioned above, countries launched the process of strengthening the UNFCCC's commitments through the adoption of a "protocol", or "another legal instrument", whose aim was going to be the allocation of quantified emissions limitation to developed countries, the adoption of objectives to reduce emissions during the period post-2000, and the elaboration of policies and measures relating to emission reductions.⁵³²

Breidenich⁵³³ lists three reasons that he thinks were behind the decision of the country parties to the UNFCCC to opt for concrete climate change actions: First, the national projections of GHG emissions indicated that most developed countries were not on the track to meet the Convention's emissions mitigation target which was aimed for the year 2000.⁵³⁴ Secondly, the UNFCCC said nothing regarding emissions mitigation for the period post 2000, putting an operational obligation to parties to deal with that gap.⁵³⁵ Finally, country parties recognised that even if developed countries' GHG emissions were fully stabilised at 1990 levels, it would still not be sufficient to avoid dangerous interference with the climate system. This is because the first commitment period of Kyoto covered only a quarter of global emissions (25 percent), whereas the second commitment is only covering 15 percent of global emissions.⁵³⁶

As for the binding mitigation of emission from developing countries, the Berlin Mandate stated that no new commitments would be allocated to developing countries as part of

⁵³⁰ See section 3.1.2.1 above for details on the objective of the UNFCCC.

⁵³¹ Breidenich *et al* 'The Kyoto protocol to the United Nations framework convention on climate change' (1998) 92 (2) *The Am J'nal of Int. Law* 315 at 318; Brunnée (b) (note 526 above; at 2); Korhola (note 21 above; at 47).

⁵³² See note 525 above on the Berlin Mandate. See UNFCCC COP1 Decision 1/CP.1, at 4-6 (June 6, 1995).

⁵³³ Breidenich (note 531 above; 318).

⁵³⁴ See Article 4.2 of the UNFCCC for details about developed countries 'commitments up to the year 2000.

⁵³⁵ *Ibid.*

⁵³⁶ Bodansky (f) (note 574 above; 18); Korhola (note 21 above; 21).

its process, besides the commitments they already had under Article 4.1 of the UNFCCC.⁵³⁷ This provision of the Berlin Mandate was one of the determining elements for the shaping of the future emission mitigation regime for developing countries, as supported in this study.⁵³⁸ The thing is, at the times towards the adoption of the Berlin Mandate, the position of the majority of developing countries was that it behoved the developed countries to adopt significant measures to reduce the GHG emissions owing to their historical responsibility for climate change. Developing countries often required developed countries to assume their climate change historical responsibility first, before they could also put their own economic development process at risk by adopting GHG mitigation measures in turn.⁵³⁹ However, even though the Berlin Mandate opposed the introduction of new additional commitments for developing countries besides those under the UNFCCC, it further launched (in the same provision) a call for all the parties to "advance the implementation" of their existing commitments under Article 4(1) of the UNFCCC,⁵⁴⁰ proving that the Berlin Mandate was also concerned with the issue of developing country's emissions mitigation.

After the Berlin COP 1, the next COP forum (COP2) took place in Geneva, Switzerland. It run from the 8th to the 19th of July 1996. It was attended by representatives of almost 161 countries, of which 147 of the 158 had already ratified the Convention at that time.⁵⁴¹ The Geneva Conference was considered an intermediary forum in the process of preparing a legally binding document to tackle climate change. The looming document was going to use an approach that was different from its mother treaty, the UNFCCC.⁵⁴² The Geneva Conference confirmed the Berlin COP 1 decisions, and further considered the requirement of the COP 2 ministerial declaration to have legally binding quantitative emission reduction targets for industrial countries,⁵⁴³ although a significant

⁵³⁷ ‘The process will, *inter alia*: Not introduce any new commitments for parties not included in Annex I, but reaffirm existing commitments in Article 4.1 and continue to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4.3, 4.5 and 4.7.’ See Decision II (b) of the Berlin Mandate. Available at: <https://unfccc.int/resource/docs/cop1/07a01.pdf>. (Accessed: 15 June 2016).

⁵³⁸ Refer to note 525 above.

⁵³⁹ Cheng Zheng-Kang ‘Equity, Special Considerations, and the Third World’ (1990) 1 *COLO. J. INT'L ENVTL. POL* 57 at 61-63.

⁵⁴⁰ See Article 4.1 of the UNFCCC.

⁵⁴¹ Korhola (note 21 above; 48).

⁵⁴² *Ibid* Corona at 47.

⁵⁴³ The COP 2 Ministerial declaration at 73, decision 8. Available at:

number of countries did not express their views thereby.⁵⁴⁴ The Geneva Conference became an echo to the IPCC's call for immediate actions to be taken in order to prevent dangerous anthropogenic related climatic transformations.⁵⁴⁵

It was during the above Geneva Conference that some developed countries started raising their voices although supporting different trends regarding the issue of emission mitigation by country parties to the UNFCCC. The EU for instance, acted as a unanimous block of countries in promotion of the UNFCCC, demanding the adoption of the strictest measures possible to curb climate change.⁵⁴⁶ The USA (represented by the Clinton's administration) shifted its legendary position and surprisingly went claiming a legally binding Convention, insisting that it was not possible to apply the same action packages to all countries, because of their varying circumstances.⁵⁴⁷ Japan echoed the view of the USA in that regard.⁵⁴⁸

The shift of the position of the US was surprising because, as demonstrated by Bodansky,⁵⁴⁹ the absence of binding emission mitigation targets under the UNFCCC was a pure reflection of the US position, as the country opposed any proposition in that direction. Furthermore, the country was opposed to parties such as the EU, and the AOSIS negotiation group that from the initiation of climate change talks, were in favour of a Convention containing legally-binding emission targets.⁵⁵⁰ That is why, during COP 1 in Berlin, the EU avoided the repetition of the experience pre-UNFCCC by quickly taking the lead in the climate change policing talks, before stating that to return to the 1990 emissions levels as demanded by the UNFCCC could not be done without binding obligations being allocated to parties.⁵⁵¹

<http://unfccc.int/resource/docs/cop2/15a01.pdf#page=71> (Accessed: 7 May 2016); See Korhola (note 21 above; 48).

⁵⁴⁴ Sixteen countries refrained from expressing themselves in the ministerial decision, amongst which are (in alphabetic order): Australia, New Zealand, and Russia, along with a number of oil-producing countries. Information available at: <http://unfccc.int/resource/docs/cop2/15a01.pdf#page=71>. (Accessed: 7 May 2016).

⁵⁴⁵ Korhola (note 21 above; 48).

⁵⁴⁶ *Ibid.*

⁵⁴⁷ *Ibid.*

⁵⁴⁸ *Ibid.*

⁵⁴⁹ Bodansky (e) (note 527 above; 11).

⁵⁵⁰ *Ibid.*

⁵⁵¹ Korhola (note 21 above; 47).

4.3. Generalities on the Kyoto Protocol

4.3.1. Adoption, entry into force, and Objective

The Kyoto Protocol is a legally binding treaty that attempts to mitigate the GHG emissions under the UNFCCC.⁵⁵² From a legal point of view, the protocol finds its origins in Article 4.2 (d) of the UNFCCC which provides for a review of the adequacy of the commitments of the Annex I parties to the UNFCCC at its first COP.⁵⁵³ The Protocol was adopted at the COP3 that was held from the 1st to the 11th of December 1997 in Kyoto, Japan, whereby over 160 states were represented. Ratified by parties, the Kyoto Protocol entered into force on the 16th of February 2005,⁵⁵⁴ about seven years after its adoption, because of its double entry into force trigger, as per its Article 25.1.⁵⁵⁵ Four years after the adoption of the protocol, country parties came up at the COP 7 in Marrakesh, Morocco, in 2001,⁵⁵⁶ and adopted the rules regarding its implementation, which are known as the “Marrakesh Accords”⁵⁵⁷

As detailed in section 4.2.3 below, the Protocol has had two commitments periods: the first ran from the 1st of January 2008 to the 31st December 2012, whereas the second runs from the 1st of January 2013 to end up on the 31st of December 2020.⁵⁵⁸ The Kyoto

⁵⁵² Information on the Kyoto Protocol available at: http://unfccc.int/kyoto_protocol/items/2830.php (Accessed: 10 May 2016).

⁵⁵³ F. Yamin ‘The Kyoto Protocol: Origins, assessment and future challenges’ (1998) 7 (2) *RECIEL* 113 at 115.

⁵⁵⁴ It is reported that from 1997 until 2003, only 120 countries ratified the UNFCCC. However, they still failed to represent the 55% of Annex I country emissions as per the protocol’s requirement under its Article 25.1. It was Russia’s ratification towards the end of 2004 which made it cross the threshold of entering into force. See Brunnée (b) (note 526 above; 2). The status of ratification of the Kyoto Protocol is available at: http://unfccc.int/kyoto_Protocol/status_of_ratification/items/2613.php, (Accessed: 04 August 2016).

⁵⁵⁵ Article 25.1 of the Kyoto Protocol provides as follows: ‘The Protocol shall enter into force on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession.’

⁵⁵⁶ Information available at: http://unfccc.int/kyoto_protocol/items/2830.php (Accessed: 10 May 2016).

⁵⁵⁷ The Marrakesh Accords were signed under the UNFCCC. The Accords contain detailed rules regarding the implementation of the Kyoto Protocol. The Accords were adopted at the COP 7 in 2001. Texts of the Marrakech Accords are available at: <http://unfccc.int/resource/docs/cop7/13a01.pdf>. (Accessed: 26 July 2016).

⁵⁵⁸ Information on the Kyoto Protocol available at: http://unfccc.int/kyoto_protocol/items/2830.php (Accessed: 10 May 2016).

Protocol does not have any objective of its own,⁵⁵⁹ because it was adopted in pursuit of the ultimate objective of the UNFCCC.⁵⁶⁰ Article 2 of the UNFCCC states that the ultimate objective of the Convention and that of any related legal instruments the COP may adopt is to achieve, in accordance with the relevant provisions of the Convention, the stabilisation of greenhouse gas concentrations in the atmosphere at levels that would prevent dangerous anthropogenic interferences with the climate system.⁵⁶¹

Guided by the CBDR principle, the primary vocation of the Kyoto Protocol was to translate into concrete terms the Convention's general commitments for country parties (especially for Annex I) as an attempt to curb the GHG emission and achieve the UNFCCC's goal. Therefore, unlike the UNFCCC which established aspirational commitment to parties,⁵⁶² the Kyoto Protocol established concrete binding emission reduction targets for developed country parties, and advanced a clear and mandatory set of targets, making countries' obligations clearer and more precise. This has also facilitated the assessment of countries' compliance with the protocol's targets, with the possibility of legal retaliations for non-compliance behaviours.⁵⁶³ Being that under Article 4.2 (g) of the UNFCCC developing countries were free to take on voluntary emission reduction commitments, it follows that under the Kyoto Protocol they still keep the same liberty, in addition to the general prescriptions of Article 10 of the Kyoto Protocol discussed below.⁵⁶⁴

4.3.2. Guiding principles of the Kyoto Protocol

The preamble of the Kyoto Protocol states that the Protocol is guided by the principles of the UNFCCC as enshrined in its Article 3 which is discussed under section 3.1.2.2

⁵⁵⁹ See Article 2 of the UNFCCC.

⁵⁶⁰ See section 3.1.2.1 above for details about the objective of the UNFCCC.

⁵⁶¹ See Article 2 of the UNFCCC.

⁵⁶² Breidenich (note 531 above; 327).

⁵⁶³ See Voigt (note 803 above; 18); see also section 5.3.6 below.

⁵⁶⁴ Article 4.2 (g) of the UNFCCC stipulates: 'Any Party not included in Annex I may, in its instrument of ratification, acceptance, approval or accession, or at any time thereafter, notify the Depositary that it intends to be bound by subparagraphs (a) and (b) above. The Depositary shall inform the other signatories and Parties of any such notification.' Subparagraph (a) of Article 4.2 stipulates: 'Each of these Parties shall adopt national¹ policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs.' Subparagraphs (b) of Article 4.2 refers to the duty of communication of the actions taken in compliance with subparagraph (a) above.

above. Whereas there seems to be no need in this section to re-analyse the whole list of the UNFCCC principles, yet it appears relevant to closely consider the application of the CBDR principle under Kyoto.⁵⁶⁵ This is because of the particularity the CBDR principle represents regarding the allocation of the burden of emission mitigation to the country parties, but especially to the group of developing countries, which is the focus of the present study.

From a historical perspective, one may assume that developing countries (envisaged in the sense of an homogenous group) have dealt differently with their developmental and social problems, on one hand, and on the other hand, they have not harvested the same economic benefits as did, and is still at present doing, the group of developed countries (also envisaged in the sense of an homogenous group) in their process of industrialisation.⁵⁶⁶ Developed countries have become richer over time, while developing countries still endeavour to develop economically and socially. That is the reason why both groups of countries do not have in today's context the same capabilities to address the climate change threat.⁵⁶⁷ And also, the two groups of countries have not played the same historical role in aggravating the atmospheric concentration of the GHG.⁵⁶⁸

Under international law, countries have sovereign equality as per the UN Charter.⁵⁶⁹ They all have equal rights and obligations on the international plane. Addressing the threat of climate change required a universal participation through which both developed and developing countries had to take on obligations in order to save the planet. Yet, as discussed in this study, to secure such universal participation, climate change regime had to be equitable enough, in other words it had to be balanced enough while allocating responsibilities to countries. As indeed, it would have been inequitable for developing countries to share the burden of abating the atmospheric concentration of GHG equally,

⁵⁶⁵ Under this section, CBDR and CBDR-RC will be used indistinctively.

⁵⁶⁶ Halvorssen (a) (note 520 above; 253).

⁵⁶⁷ *Ibid.*

⁵⁶⁸ See section 2.1.2 for more details on GHGs.

⁵⁶⁹ ‘The Charter of the United Nations was signed on 26 June 1945, in San Francisco, at the conclusion of the United Nations Conference on International Organization, and came into force on 24 October 1945. The Statute of the International Court of Justice is an integral part of the Charter.’ Information and text of the chart available at: <http://www.un.org/en/charter-united-nations/>. (Accessed: 19 August 2016).

given their lesser historical role with that regard.⁵⁷⁰ This is why the Kyoto Protocol had to give a greater consideration to the CBDR-RC principle in allocating to countries different emission mitigation obligations, to reflect the roles they respectively played towards the climate change phenomenon at that time.

In application to the CBDR principle, the Kyoto Protocol (as also done by the UNFCCC) took consideration of the CBDR's two prongs: (*i*) the parties' climate change differing historical responsibilities, and (*ii*) the parties' differing capabilities to address the climate change threat.⁵⁷¹ It is on that basis that the Kyoto Protocol refrained from assigning any binding emission limitations to developing countries,⁵⁷² although it recognised that the categorisation of countries might evolve over time, and "graduate" from one category of country into another, depending on the evolution of their climate change responsibilities and capabilities.⁵⁷³ For instance a country would evolve from being a Non-Annex I to becoming an Annex I country.⁵⁷⁴ The increasing volume of the country's emissions over time might trigger its climate change responsibility, whereas the economic development of the country will improve its capability to address the climate change threat.

Although from a logical point of view, it appeared relevant and in line with the principle of CBDR to impose a greater share of mitigation responsibilities to developed countries besides urging them to take the lead in climate change matters, there were nevertheless some issues to be careful about, in order to ensure more effectiveness and broader support to the protocol's differential system. One of them is the time frame issue, in other words, how long it would take the CBDR principle to be applied under a treaty such as the UNFCCC. The next relates to the compatibility of the CBRD with the

⁵⁷⁰ 'Once the CO₂ is emitted into the atmosphere, it remains there for at least a century, hence, we are now seeing the effects of GHGs emitted since the beginning of the industrial revolution. This constitutes, for the most part, pollution from developed countries, but not from developing countries.' See for details: UNEP & IPCC *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. (2007). Available at: <https://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-frontmatter.pdf>. (Accessed: 25 October 2016).

⁵⁷¹ On differential treatment in the climate change regime, see Rajamani (a) (note 48 above).

⁵⁷² Article 3.1 of the UNFCCC.

⁵⁷³ *Ibid.* Article 4.2(f).

⁵⁷⁴ Bodansky (f) (note 467 above; 14).

urgency to the tackle climate change and save the planet. In other words, was the application of the CBDR principle compatible with the objective of the UNFCCC?

At first, as recalled by Halvorssen,⁵⁷⁵ the adoption of the CBDR principle as a climate change principle was only meant to last for a limited time period (although imprecise) to allow the developing countries to reach satisfying levels of economic growth as the industrialised countries did, while simultaneously addressing the climate change threat. In that view it is clear that the CBDR principle did not intend to institute a permanent and irremovable arrangement of two parallel groups of countries. As also argued by Rajamani,⁵⁷⁶ once the differences between the countries cease to exist, the differential treatment should no longer be referred to.

As also argued by Bodansky,⁵⁷⁷ the CBDR principle was never perfectly reflected by the “Annexes” approach as applied under the UNFCCC and Kyoto protocol regime, because the approach became disconnected from the reality, as the global economy progressively and radically transformed over time.⁵⁷⁸ At this point a question could be asked, ‘how could it be that the approach to differential treatment that was applied in 1992 to differentiate between countries and allocate them emission mitigation responsibilities as discussed above,⁵⁷⁹ is not referred to afresh in an attempt to readjust countries’ responsibilities 25 years later, after some developing countries have achieved radical economic transformations, and have become major emitters?’

After analysing the same issue, Halvorssen⁵⁸⁰ concluded that treaties that apply the CBDR principle should ensure its compatibility with their objective and purpose. Parties should also ensure that the domestic implementation of the treaty which applies the CBDR principle do not defeat the objective and purpose of the applying treaty as a result. This is because it would amount to a conflict, as the application of a principle of law cannot go beyond the statutory limits of the treaty under which it is being applied.⁵⁸¹ In

⁵⁷⁵ Halvorssen (a) (note 520 above; 255).

⁵⁷⁶ Rajamani (a) (note 48 above; 162).

⁵⁷⁷ Bodansky (f) (note 574 above; 14).

⁵⁷⁸ *Ibid.*

⁵⁷⁹ Refer to section 2.3 above.

⁵⁸⁰ A.M. Halvorssen (b) ‘*Equality among unequals in International Environmental Law: Differential treatment for developing countries*’ Westview Press (1999) at 29.

⁵⁸¹ Rajamani (a) (note 48 above; 162).

the case under scrutiny, i.e. the GHG mitigation regime for developing countries, the protocol's object and purpose of "stabilising the GHG concentrations in the atmosphere at harmless levels would be defeated by the continually growing emissions from developing countries. This is because of the absence of emission limitations given to them. Emissions would end up reaching dangerous anthropogenic interferences with the climate system, which situation would be in contradiction with the very purpose of the protocol.⁵⁸² As demonstrated by Lanza,⁵⁸³ if in 2002, developed countries were responsible for 64 percent of total emissions,⁵⁸⁴ and the developing countries for 36 percent, the situation of 2030 will be the reverse of the position of the main "polluters", according to the projections with 49 percent of the emissions produced by developing countries, 51 percent by developed countries.⁵⁸⁵

However, the application of the CBDR principle under the Kyoto regime has suffered a lot of criticism, most of which revolved around the free GHG emission regime being granted indistinctively to the heterogeneous group of developing countries, resulting in increasing emissions which at the time of this research have exceeded the emissions from developed countries, as discussed in following sections. It is also because of an "erroneous" application of the CBDR principle, as argued by Korhola⁵⁸⁶ that although effective in many ways, the Kyoto Protocol did not benefit a full international support. As also argued by Zhang,⁵⁸⁷ to reach the goal of the new climate change agreement and further save the Earth, the CBDR as applied under the UNFCCC and its Kyoto Protocol will need further reflection and reinterpretation.⁵⁸⁸

⁵⁸² Halvorssen (a) (note 520 above; 255).

⁵⁸³ A. Lanza. 'The Kyoto Protocol and the Statistical Information' available at: <http://old.sis-statistica.org/files/pdf/atti/CIMe0905p3-12.pdf>. (Accessed: 10 October 2016).

⁵⁸⁴ 64 percent constitutes the sum of 54 percent from the OECD countries, and 10 percent from countries in economy in transition under the UNFCCC regime.

⁵⁸⁵ 51 percent constitutes the sum of 42 percent from the OECD countries, and 9 percent from countries in economy in transition under the UNFCCC regime.

⁵⁸⁶ Korhola (note 21 above; 280).

⁵⁸⁷ H. Zhang 'Towards a New Global Agreement under the Doha Climate Gateway: A Chinese Way.' (2014) 7 *JE Asia & Int'l L.* 443 at 443.

⁵⁸⁸ *Ibid.*

4.3.3. The Protocol's two commitment periods

The Kyoto Protocol have had two consecutive commitment periods.⁵⁸⁹ The first period (Kyoto I) started in 2008 and ended in 2012, whereas the second period (Kyoto II), was launched in 2013 and will run until 2020. Kyoto I was decided at the adoption of the protocol in 1997, whereas Kyoto II was decided in Doha, Qatar, on the 8th of December 2012. The deal which produced Kyoto II is known as the "Doha Amendment to the Kyoto Protocol".⁵⁹⁰ Under the Kyoto I, Annex I countries agreed to reduce their anthropogenic emissions of GHG by at least 5 percent below 1990 levels.⁵⁹¹ Some 37 industrialised countries and the European Community in total were part of Kyoto I.⁵⁹² In addition to the fact that many countries in the conclusion of Kyoto I in 2012 did not meet their targets,⁵⁹³ the next commitment period only covers around 15 percent of global emissions⁵⁹⁴ with on top of that a smaller number of country parties.⁵⁹⁵ This means comparatively lesser chances of fulfilling the objective of the Convention.

However, parties that agreed to be bound by Kyoto II committed themselves to increase their ambitions by reducing their emissions from 25 to 40 percent below the 1990 level by the year 2020.⁵⁹⁶ This is the case for parties such as the EU, Australia,⁵⁹⁷ Norway and Switzerland, whereas Russia, Canada, New Zealand and Japan refused to be part of the Kyoto II scheme. The United States of America still remained outside the treaty, as it

⁵⁸⁹ Information available at: http://unfccc.int/kyoto_protocol/items/2830.php (Accessed: 10 July 2016).

⁵⁹⁰ The amendment which constitutes the second commitment period of the Kyoto protocol includes:

- New commitments for Annex I parties who agreed to be bound by the second commitment period;
- A revised list of greenhouse gases to be reported on by Parties in the second commitment period, as an additional gas, the Nitrogen trifluoride (NF3) was added to the list; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated. See for more details on the Doha amendment available at:
https://unfccc.int/files/kyoto_protocol/application/pdf/kp_doha_amendment_english.pdf.
(Accessed: 10 May 2016).

⁵⁹¹ See Glemarec (note 18 above); See section 2.1.2 above for the list of greenhouse gases which have been targeted during the first commitment period of the Kyoto Protocol.

⁵⁹² See note 552 on details on the Kyoto Protocol; See also Bodansky (e) (note 527 above; 24).

⁵⁹³ Korhola (note 21 above; 78).

⁵⁹⁴ *Ibid.*

⁵⁹⁵ *Ibid.*

⁵⁹⁶ M. Davide 'The Doha Climate Gateway: a first key-point assessment' (2012) *Rev.of Env En&Ec 1* at 2.

⁵⁹⁷ Australia is among the conservative governments that also declined to ratify the Protocol for many years. Information available at: http://unfccc.int/kyoto_protocol/items/2830.php (Accessed: 19 July 2016).

was the case during Kyoto I, whereas China and India have resisted even talking about future binding commitments.⁵⁹⁸

Parties that do participate in the Kyoto will continue to provide regular reports on their GHG emissions as it was the usually the case under Kyoto I. besides, they still have access to the flexible mechanisms as it was the case under the previous commitment period in order to assist them in meeting their targets.⁵⁹⁹ In that sense, developing countries will continue playing a key role in emissions mitigation during Kyoto II, which covers the period leading to 2020.

4.4. The GHG emission mitigation regime for developing countries under Kyoto

In application to the Common but Differentiated Responsibilities and Respective capabilities principle, the Kyoto Protocol retained no quantified emissions limitation and reduction commitments (QELRCs) for the group of developing countries. Nevertheless, in fulfilling the recommendation of the Berlin Mandate as discussed above, Article 10 of the Kyoto Protocol included the developing country parties as it called on all the parties to strive for the advancement in the implementation of their existing commitments under Article 4(1), 4(3), 4(4), 4(5), and 4(7) of the UNFCCC.⁶⁰⁰ Article 10.1 of the Kyoto Protocol provides as follows:

“All parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, without introducing any new commitments for parties not included in Annex I, but reaffirming existing commitments under Article 4, paragraph 1, of the

⁵⁹⁸ Brunnée (b) (note 526 above; 2).

⁵⁹⁹ Backer (note 51 above; 24-25).

⁶⁰⁰ See Article 4.1 of the UNFCCC; See note 525 for details about the Berlin Mandate; See Breidenich (note 531 above; 325-326); For example, under Article 10 of the Kyoto Protocol, parties would be required to: ‘formulate, where relevant and to the extent possible, cost-effective national, and where appropriate regional programmes to improve the quality of local emission factors, activity data and/or models which reflect the socioeconomic conditions of each Party for the preparation and periodic updating of national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties, and consistent with the guidelines for national communications adopted by the Conference of the Parties.’

Convention, and continuing to advance the implementation of these commitments in order to achieve sustainable development, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention shall...”

This is why under the Kyoto Protocol, developing countries’ commitments represented no additional duties, but rather did advance their existing commitments under the UNFCCC. Article 10 (a) for instance requires parties to the protocol to formulate, where relevant and to the extent possible, cost effective national and, where appropriate, regional programmes to improve the quality of local emission factors, activity data and/or models.⁶⁰¹ The said programmes had to reflect the socio-economic conditions of each party for the preparation and periodic updating of national inventories of anthropogenic emissions by sources and removals by sinks of all GHG not controlled by the Montreal Protocol.⁶⁰² This provision aimed at improving, or even solving the multiple problems faced by developing countries in terms of collecting, analysing and submitting good quality inventory data in their national communications for a better administration of national emission mitigation strategies.⁶⁰³

In the same order of idea, Article 10 (b) includes “soft” commitments to formulate, implement, publish and regularly update national or regional programmes containing measures to mitigate climate change, and states that these programmes “would” concern sectors such as energy, transport, industry, agriculture, forestry, and waste management. Sub-paragraph (ii) farther in the same provision enjoins Non-Annex 1 parties to include in their national communications, as appropriate as possible information on programmes which contain measures that the “party believes contributes to addressing climate change” and its adverse impacts, including the abatement of increases in greenhouse gas emissions.⁶⁰⁴

⁶⁰¹ Article 10 (a) of the Kyoto Protocol.

⁶⁰² *Ibid.*

⁶⁰³ Yamin (note 553 above; 123).

⁶⁰⁴ Article 10 (b) (ii) of the Kyoto Protocol; IISD (i) ‘Report of the 3rd conference of the parties to the United Nations Framework Convention on Climate Change: 1 – 11 December 1997.’ (1997) 12 (76) ENB at 10; Report available at: <http://www.iisd.ca/download/pdf/enb1276e.pdf> (Accessed: 19 August 2016).

According to Yammin,⁶⁰⁵ the G77 negotiation group deployed considerable efforts to delete any legally binding commitment for developing countries, in favour of “soft commitments”.⁶⁰⁶ Still on Yammin’s view, they further endeavoured to make any additional financial resources from the protocol’s mechanisms to meet the full cost incurred by developing countries, in order to allow them to advance their commitments under the protocol.⁶⁰⁷

The absence of binding emission mitigation for developing countries under Kyoto raised concerns in many developed countries, who questioned the effectiveness of the treaty.⁶⁰⁸ The following two grounds are the ones that usually feed the questionings: firstly, the impossibility to eliminate the threat of global warming based on the developed country emission reductions alone.⁶⁰⁹ Secondly, the fear that costly emission mitigation measures reduce developed countries’ international competitiveness in trade. The questioning of the effectiveness of Kyoto is based on some economic development data projections, which showed that the rates of annual emissions from developing countries were going to surpass those of developed countries early in the down of the 21st century.⁶¹⁰ Projections further showed that the bulk of future emissions growth would come from developing countries, whereas the UNFCCC/Kyoto regime has granted them the right to freely emit.⁶¹¹

On the issue of loss in international competitiveness, some developed countries thinkers analysed the emission reduction obligation issue from an “international trade” view point, and feared that forcing to absolutely meet the Kyoto’s obligations could weaken developed countries’ economies, and place their local industries at a disadvantaged position vis-a-vis the competitors from developing countries, who are not subject to similar obligations.⁶¹² Developed countries further noticed that, even if fully implemented, the protocol’s two rounds of commitments would still be unable to achieve

⁶⁰⁵ Yamin (note 553 above; 123).

⁶⁰⁶ See note 271 above for details concerning the G77 Climate change negotiating group.

⁶⁰⁷ Yamin (note 553 above; 123).

⁶⁰⁸ Breidenich (note 531 above; 325-326).

⁶⁰⁹ *Ibid.*

⁶¹⁰ *Ibid* Breidenich.

⁶¹¹ *Ibid.*

⁶¹² *Ibid.*

the objective of the Convention. Therefore, the necessity of a universal participation in the climate change regime. Brunnée⁶¹³ have discovered that the parties that have negotiated the protocol were already alerted of the fact that it was going to be inefficient even if fully implemented. However, they ended up overlooking that side of the matter, avoiding to further question the differential approach adopted by the Convention in allocating emission mitigation commitments to its country parties.

Talking about the Kyoto's differential approach, Bodansky⁶¹⁴ thinks that the Berlin Mandate have played a significant role in hardening countries' differentiation under the UNFCCC climate change regime. This is because it explicitly excluded the adoption of any new commitments for developing countries, besides their UNFCCC commitments.⁶¹⁵ The differentiation became further reinforced by the rejection during the Kyoto forum of proposals to call for developing countries to assume voluntary emissions mitigation commitments.⁶¹⁶ It was from that time that some began to suggest that the principle of CBDR-RC established a "firewall" between Annex I and Non-Annex I parties.⁶¹⁷

A regime of differential approach caused to the Kyoto Protocol many reproaches, in the extent that scholars such as Nordhaus⁶¹⁸ made some pessimistic predictions regarding the treaty. Nordhaus foresaw that the Kyoto Protocol would have a modest impact on the global warming, and that its long-run impact on carbon emissions and global temperature will be extremely small.⁶¹⁹ So was it for others who saw Kyoto's failure in terms of environmental effectiveness, as a natural consequence of its flawed architecture, concluding that the Protocol was an impractical policy document, focused on achieving unrealistic and inappropriate goals.⁶²⁰

⁶¹³ Brunnée (b) (note 526 above; 2).

⁶¹⁴ Bodansky (f) (note 574 above; 15).

⁶¹⁵ Paragraph 2(b) of the Berlin Mandate.

⁶¹⁶ Joanna Depledge *Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History* (November 2000) UNFCCC Technical Paper FCCC/TP/2000/2 at 102 –105. Available at: <http://unfccc.int/resource/docs/tp/tp0200.pdf>. (Accessed: 12 October 2016).

⁶¹⁷ Bodansky (f) (note 574 above; 15).

⁶¹⁸ W.D. Nordhaus & J.G. Boyer 'Requiem for Kyoto' (1999) 20 special issue *The Energy Journal* at 93 at 110

⁶¹⁹ *Ibid* Nordhaus; J. P. Weyant & J.N. Hill 'The Costs of the Kyoto Protocol: A Multi-Model Evaluation' (1999) *Energy Journal* 2285 at 2288.

⁶²⁰ W.J. McKibbin & P.J. Wilcoxen 'The Role of Economics in Climate Change Policy' (2002) 16 (2) *Jrn of Econ Persp.* 107-129 at 127.

Both commitment periods of the Kyoto Protocol aimed at reducing emissions from developed countries only; however, in order to achieve the said commitments, the protocol included a number of "flexible mechanisms" which allowed developed countries to achieve their QELRCs by undertaking, financing and purchasing emissions reductions generated outside their territories.⁶²¹ The Kyoto's "flexible mechanisms" were introduced at the insistence of developed countries whose argument was that parties should have maximum geographical flexibility because from a global perspective, the physical source of emission was environmentally irrelevant.⁶²² Under the Protocol, "Flexible mechanisms" relates to the International Emissions Trading System "ET" (Article 17), the Clean Development Mechanisms "CDM" (Article 12), and the Joint Implementation mechanisms (JI) (Article 6).⁶²³

The International Emissions Trading System allows countries to trade their commitments. Countries that have satisfied their obligations can sell their excess carbon allowances to other countries in the form of Assigned Allocation Units (AAU), which are the tradable country allowances.⁶²⁴ The CDMs allows the purchase of emission credits from projects in Non-Annex 1 parties, or developing countries. The trading units are constituted with the credits arising from CDM projects, also called the "Certified Emissions Reduction" (CER). The Joint Implementation mechanisms allows an Annex I Party to finance a project in the territory of another Annex I Party and capitalise the achievements as if they were done within the party's own jurisdiction.⁶²⁵ The JI is a mechanism that has been designed for the countries with economies in transition.⁶²⁶

The CDM is the only market mechanism which allows developing countries to participate in the global mitigation efforts. As mentioned above, through the CDM, an Annex I Party finances a project located inside the jurisdiction of a developing country

⁶²¹ Articles 6, 12 and 17 of the Kyoto Protocol.

⁶²² Yamin (note 553 above; 121); Halvorssen (a) (note 520 above; 257).

⁶²³ To this, Bodansky adds to the list "the joint fulfilment of commitments" which he calls "bubbles".

⁶²⁴ Refer to Article 6 of the Kyoto Protocol.

⁶²⁵ See Article 6 of the Kyoto Protocol.

⁶²⁶ The Secretariat of the UNFCCC *The Mechanisms under the Kyoto Protocol: The Clean Development Mechanism, Joint Implementation and Emissions Trading*. Available at: <http://unfccc.int/kyotojprotocol/mechanisms/items/1673.php> (Accessed: 10 October 2016).

party, and in turn receives credit accounting for its own emissions reduction commitment.⁶²⁷ Article 12 of the Kyoto Protocol specifies that the purpose of the CDM is to assist developing countries in achieving their sustainable development while contributing to the UNFCCC's ultimate objective. It also aims at assisting at the same time developed countries to fulfil their emission reduction commitments under the Kyoto Protocol.⁶²⁸

Reducing emissions from within the territory of developing countries has proven to be a cost effective strategy because it is cheap, in comparison to when it is done within a developed countries' territory, whereby the marginal cost of GHG abatement is comparatively high.⁶²⁹ However, even though the CDM implies the participation of developing countries through concrete emissions mitigations actions, one still cannot capitalise its achievements in favour of developing countries, because, as per Article 12 of the Kyoto Protocol, the CDM credits belong to the developed countries counterpart that fund the project.

4.5. Conclusion

Whenever parties engage in international emission mitigation talks, the question regarding the participation of developing countries arises;⁶³⁰ and as discussed in this chapter, there is hardly consensus among parties with that respect. The absence of emission reduction provisions for the group of developing countries under the Kyoto Protocol has been heavily controversial, especially the participation in a mitigation regime of developing countries major emitters, also listed as the biggest emitters worldwide. Any effort to maintain or justify the regime has made the climate change field more suffering than successful. Since its adoption in 1997, dissatisfactions and attacks regarding the Kyoto Protocol's regime for developing countries were flowing to the point of almost provoking its collapse. Countries such as the USA used the same issue as a ground for abstaining from ratifying the protocol. There is a formal pressing

⁶²⁷ Article 12 of the Kyoto Protocol.

⁶²⁸ Article 12.2 of the Kyoto Protocol.

⁶²⁹ D. Freestone 'The UN Framework Convention on Climate Change, the Kyoto Protocol, and the Kyoto Mechanisms' in D. Freestone & C. Streck *Legal aspects of implementing the Kyoto Protocol mechanisms: making Kyoto work* (2005) 1 at 11.

⁶³⁰ See notes 32, 33, 34, 35, 36, and 37 above.

call towards all parties to the UNFCCC to converge local and international efforts to contain the global temperature increase within the margin of 2 degrees Celsius compared to the averages of the pre-industrial age, to avoid dangerous anthropogenic interferences with the climate system. That is therefore the concern about increasing emissions from the group of developing countries. The 2015 Paris universal Climate Change Agreement which is the focus of the next chapter is an attempt to solve the problem. Based on the principle of Equity and Common but differentiated Responsibility and Respective Capabilities, it proposes a universal climate change regime which equally applies to all the parties to the UNFCCC.

CHAPTER V: THE GREENHOUSE GASES EMISSION MITIGATION REGIME FOR DEVELOPING COUNTRIES UNDER THE PARIS AGREEMENT

5.1. Introduction

One of the most contentious issues in the climate change debate towards the Paris Agreement was the mitigation of emissions from developing countries, especially those who had become new major emitters,⁶³¹ whether they should as well be included in an emission reduction scheme.⁶³² The previous regime indeed conceded to them the right to freely emit GHG as much as needed in order to fulfil their economic goals.⁶³³ However, a quarter of a century since the adoption of the UNFCCC, the global economic context had significantly evolved.⁶³⁴ Some developing countries are among the world's major GHG emitters,⁶³⁵ at a time when there is a more urgent call for a global action to limit the current global temperature increase.⁶³⁶ The Paris Agreement is an attempt to solve this problem, through a climate change regime that would be applicable to all, with the objective of holding the temperature increase to well below 2 degrees Celsius.⁶³⁷ This chapter will analyse the key features of the Paris Agreement with respect to developing countries' emission reduction. It starts by presenting the COP 21 negotiations background, and then discusses the elements and the structure of the Paris Agreement, before analysing the developing countries emissions reduction regime. The chapter ends up with a brief concluding comment.

⁶³¹Winkler (a) (note 35 above; 469); Rong (note 254 above; 4583); Zhang (note 254 above; 1753); Chandler (note 47 above; ii).

⁶³² Brunnée (a) (note 153 above; 592).

⁶³³ See the preamble of the UNFCCC.

⁶³⁴ Werner (note 252 above; 166); Winkler (a) (note 35 above; 2).

⁶³⁵ J.B. Wiener (b) 'Think globally, act globally: the limits of local climate policies' (2007) 155 (6) *Univ. of PS LR* 1961 at 1967; *Ibid* Werner at 167.

⁶³⁶ *Ibid* Wiener (b); see IPCC 2014 (b) (note 73 above; v).

⁶³⁷ See Article 2 of the Paris Agreement. See also section 5.3.2 below for more details.

5.2. Background of the Paris Agreement

The international response to climate change started with the UNFCCC followed by the Kyoto Protocol, based on a differential treatment between developed and developing countries. The developed countries were loaded with more responsibilities than the developing countries. This was because of their acknowledged historical climate change responsibility.⁶³⁸ As discussed above, that cleavage between the two groups of countries on climate change related issues significantly affected the health of international climate negotiations, with negative impact on global emissions.⁶³⁹

The 2009 “Copenhagen Accord” is regarded as a milestone towards the Paris Agreement, as it introduced what was necessary for a new universal climate change regime. The Bali Road Map adopted the core provisions of the Copenhagen Accord, and paved the way to the Paris Agreement,⁶⁴⁰ while the two Ad Hoc Working Groups (on Kyoto Protocol and on Long Term Climate Action) prepared all the parties for a universal regime.⁶⁴¹ COP17 launched the Durban Platform for Enhanced Action, with a mandate to develop another legal instrument or an agreed outcome with legal force under the Convention which would be applicable to all parties.⁶⁴² The Warsaw Conference invited parties to initiate or intensify preparations of Intended Nationally Determined Contributions,⁶⁴³ whereas the “Lima Call for Climate Action” set in motion the final negotiations towards the 2015 Agreement, including the submitting and reviewing of INDCs.⁶⁴⁴

Through the above processes, developing countries in particular were incrementally prepared for the upcoming new climate change regime that would be applicable to them as well, as the call became urgent for global efforts to close the emission gap towards the objective of 2 degrees Celsius increase.

⁶³⁸ Article 4 of the UNFCCC.

⁶³⁹ Refer to notes 363, 364, 365, 366, 367, 368, 369 and 370 above.

⁶⁴⁰ See section 3.1.8 above.

⁶⁴¹ See section 3.1.4.2 above.

⁶⁴² See section 3.1.7 above.

⁶⁴³ See section 3.1.9 above.

⁶⁴⁴ See section 3.1.10 above.

As explained by Michel Damian⁶⁴⁵, the fundamental problem towards the Paris Agreement was the situation of the world which is different from 1992, at the adoption of the UNFCCC. Developing countries such as China, India and Brazil, which were insignificant emitters at that time, are currently among the world's top emitters.⁶⁴⁶ Therefore grew the need of a new emissions mitigation regime that especially extends to those new emitters, to prevent further aggravation of the climate system.⁶⁴⁷

As also in chapter three above, the exemption from emission limitations granted to states that were classified as “developing countries” in 1992 was hardly justifiable in 2015.⁶⁴⁸ The regime that allowed developing countries to freely emit for their developmental purposes became abundantly disputed. For instance, it was not understandable any more to put for instance China and Chad in the same basket, and assume that both countries are “developing countries” and therefore, be exempted from emissions limitation targets.⁶⁴⁹ As discussed in section 2.2 above, the criteria that is currently referred to, which decides whether or not a country is a developing one is questionable.⁶⁵⁰ Because in this case of China and Chad, the only common point between the two is the fact that they are both Non-Annex I countries under the UNFCCC; apart from that, they differ in almost everything else, especially regarding the GHG emission drivers.⁶⁵¹ Therefore, the UNFCCC/Kyoto “Berlin wall”⁶⁵² represented by the separation of the two groups of countries had to fall and leave space to a more equitable and updated differential system between countries.

⁶⁴⁵ M. Damian *et al* 'Les grandes orientations de l'accord climatique de Paris 2015' (2015) ed Supp. (3) NSS 19 at 20. Available at: www.nss-journal.org (Accessed: 20 August 2016).

⁶⁴⁶ See note 631 above.

⁶⁴⁷ Damian (note 645 above; 5).

⁶⁴⁸ *Ibid* Damian at 6.

⁶⁴⁹ *Ibid* Damian at 6.

⁶⁵⁰ See section 2.2 above for more details.

⁶⁵¹ Damian (note 645 above; 6); See section 2.1.2 and note 109 above for details about emission drivers.

⁶⁵² *Ibid* Damian; “Berlin wall”, also referred to as the “fire wall”, typifying in this context the rigid statutory differentiation made between developed and developing countries under the UNFCCC/Kyoto Protocol climate change regime according to which, there was a static, unmoving classification of countries, based on the 1992 developmental criteria and data. See S. Dröge ‘The Paris Agreement 2015: turning point for the

international climate regime’ (April 2016) Research Paper SWP-SWP-DIIPS. Available at: http://www.ssoar.info/ssoar/bitstream/handle/document/46462/2016RP04_dge.pdf?sequence=1 (Accessed: 10 August 2016).

5.3. The COP 21 forum

5.3.1. Objective

The COP21 was convened from 29 November to 13 December 2015 in Paris, France. 195 country parties to the UNFCCC were gathered to complete the task they had set for themselves under the Durban platform for enhanced action, in 2011, to adopt a “protocol, another legal instrument or an agreed outcome with legal force under the Convention which applied to all parties.”⁶⁵³

The Paris forum was the culmination of a quarter century of climate change discussions to reach an equitable and universal regime.⁶⁵⁴ It benefited from the experience of two decades of interactions.⁶⁵⁵ For Bodansky,⁶⁵⁶ negotiating countries in Paris were more prepared than in Rio in 1992, and states knew better which direction to take. As it was also the case in 1992 at the adoption of the UNFCCC, attendance by the heads of states and governments was important in Paris.⁶⁵⁷ Such involvement of heads of states, along with a broad range of other stakeholders⁶⁵⁸ is an indication that the message about the urgency to take measures to curb climate change is being heard.⁶⁵⁹

⁶⁵³ See section 3.1.7.2 above, Regarding the Durban platform for enhanced action on climate change

⁶⁵⁴ Reflections available at: <https://conferences.asucollegeoflaw.com/workshoponparis/files/2012/08/AJIL-Paris-Agreement-Draft-2016-03-26.pdf>. (Accessed: 17 August 2016).

⁶⁵⁵ *Ibid.*

⁶⁵⁶ Bodansky (f) (note 574 above; 1).

⁶⁵⁷	Year	Heads of States and Government attendance
1	1992	154 + 1 International organization.
2	2015	Over 150

Information available at: http://legal.un.org/avl/pdf/ha/ccc/ccc_ph_f.pdf. (Accessed: 10 August 2016);

See also <http://www.iisd.ca/download/pdf/enb12663e.pdf>. (Accessed: 10 October 2016).

⁶⁵⁸	Year	Participants in the COP 21
1	2015	36.000 in total 23.100 government officials 9400 Representatives from the UN bodies, the Intergovernmental organizations and civil society 3700 members of the media

Information available at <http://www.iisd.ca/download/pdf/enb12663e.pdf>. (Accessed: 10 October 2016).

⁶⁵⁹ R. Bodle *et al* (a) The Paris Agreement: Rebooting Climate Cooperation. The Paris Agreement: Analysis, Assessment and Outlook.’ (2016) *C&CLR* 10 (1) 5 at 26.

Countries in Paris were already familiar with the 2009 Copenhagen climate change architecture which was introducing a new regime that would be applicable to all, adopted thereafter by the Cancun Agreements, as discussed above.⁶⁶⁰ Besides this, the Copenhagen approach was largely reflected in all the COP decisions leading up to Paris Agreement. Therefore, the view of what the Paris Agreement was going to look like was already clear for countries, to the extent that they already foresaw the outline of what they were going to get after adopting the Paris Agreement.⁶⁶¹

5.3.2. Outcomes

The Paris Agreement produced two outcomes: the decision 1/CP.21 that adopted the Paris Agreement, and the Paris Agreement itself.⁶⁶² The current research focuses on the Paris Agreement, and specifically on the GHG emissions reduction regime it institutes for developing countries.⁶⁶³

However, even in Paris, parties were not unanimous on the legal bindingness of the new regime to be adopted. Parties such as the EU and some developing countries were known to be favourable to a universal legally binding outcome, whereas the USA, China and India were not.⁶⁶⁴ China and India especially, rejected any binding outcome that would be equally applicable to developing countries.⁶⁶⁵ After the adoption of the Paris Agreement, analysts now diversely look at the treaty: for some, it is a success, an evolution in the climate change governance, and a revolution in the UNFCCC COP process.⁶⁶⁶ For others, it is a good compromise with huge achievement, yet an imperfect solution to the global problem of climate change.⁶⁶⁷ More of them see the treaty only as

⁶⁶⁰ See section 3.1.5 on the COP 15 at Copenhagen for more details.

⁶⁶¹ Bodansky (f) (note 574 above, 1).

⁶⁶² IISD (g) ‘Summary of the Paris Climate Change Conference: 29 November – 13 December 2015’ (2015) 12(663) *ENB* at 42. Available at: <http://www.iisd.ca/download/pdf/enb12663e.pdf> (Accessed: 20 August 2016)

⁶⁶³ Refer to chapter one for more details.

⁶⁶⁴ W. Sterk *et al* ‘On the Road Again. Progressive Countries Score a Real politik Victory in Durban While the Real Climate Continues to Heat Up.’ (2011) *WICEE* at 5-8. Available at: <http://www.indiaenvironmentportal.org.in/files/file/COP17-report.pdf> (Accessed: 10 June 2016).

⁶⁶⁵ *Ibid.*

⁶⁶⁶ IISD (g) (note 662 above; 43).

⁶⁶⁷ *Ibid.*; R. Bailey & S. Tomlinson ‘Post-Paris: Taking Forward the Global Climate Change Deal’ (April 2016). *EE and R* briefing notes at 2. Available at: <https://www.chathamhouse.org/sites/files/chathamhouse/publications/research/2016-04-21-post-paris-bailey-tomlinson.pdf> (Accessed: 20 august 2016).

a text that provides a political direction for climate change matters.⁶⁶⁸ However, it remains that with the Paris Agreement, the world have had its first global climate treaty under which developed and developing countries alike are bound.⁶⁶⁹ The adoption of a universal regime was exciting to such an extent that Francois Holland,⁶⁷⁰ the French president whose country hosted the event qualified the Paris Agreement as “the most beautiful and peaceful revolution that have ever occurred in his country”.

However, the Paris Agreement provides a strong framework for the present and future climate change response. It also provides the necessary mandate for domestic policymakers to undertake its implementation, and sets a universal framework of climate change co-operation and solidarity among countries to which it addresses positive signals towards a decarbonised world in a near future.⁶⁷¹ However, on the view of some, one of the most telling failures of the Paris Agreement is that it lacks ambition with respect to the scientific requirements for effectively dealing with the urgency of the climate change challenge.⁶⁷²

Having failed to produce a universal legally-binding agreement accounting for a new climate change regime in Copenhagen in 2009, parties in Paris in 2015 could not afford to fail as well.⁶⁷³ Therefore, parties not only redoubted the worst pessimistic scenario of a failure, they were now concerned about the probability of adopting a meaningless outcome.⁶⁷⁴ In the end, however, the outcome of the COP 21 exceeded expectations.⁶⁷⁵ Negotiations ended up producing an Agreement that, while perhaps not a revolution as such, as praised by the French President Francois Holland, was undoubtedly an important step in the evolution of climate change governance and a reaffirmation of the environmental multilateralism.⁶⁷⁶

⁶⁶⁸ *Ibid.*

⁶⁶⁹ Bailey (note 667 above, 3).

⁶⁷⁰ IISD (g) (note 662 above, 42).

⁶⁷¹ Analysis available at: <https://www.fne.asso.fr/dossiers/cop-21-notre-analyse-de-l'accord>; (Accessed: 20 August 2016); See also: IISD (g) (note 662 above; 45).

⁶⁷² Analysis available at: <http://theconversation.com/paris-agreement-on-climate-change-the-good-the-bad-and-the-ugly-52242>. (Accessed: 25 October 2016).

⁶⁷³ For more details on the COP 15 and the Copenhagen Accord, refer to section 3.1.5 above.

⁶⁷⁴ IISD (g) (note 662 above; 42).

⁶⁷⁵ *Ibid.*

⁶⁷⁶ “Multilateralism” refers to the quality of being multilateral; in other words, the principle or practice of forming agreements or treaties on a multilateral basis. Definition available at:

5.4. The Paris Agreement: Adoption, Entry into force, Elements and Structure

5.4.1. Adoption and entry into force

The COP21 adopted the Paris Agreement on the 12th of December 2015 by all the 196 country parties to the UNFCCC, as exposed in section 5.2.1 above.⁶⁷⁷ The Paris Agreement was to enter into force on the thirtieth day after the date on which at least 55 parties to the Agreement, accounting in total for at least an estimated 55 percent of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession.⁶⁷⁸ On 5 October 2016, both thresholds for the entry into force were achieved, making the Paris Agreement to enter into force on the 4th of November 2016,⁶⁷⁹ in confirmation of an earlier prediction of the UN secretary General Ban Ki Moon that he was confident to see it entering into force before the end of 2016.⁶⁸⁰ The first session of the Conference of the Parties serving as the Meeting of the Parties to the Paris Agreement took place from the 7th to the 18th of November 2016, in Marrakech, Morocco in conjunction with COP22.

Nevertheless, with the entry into force of the Paris Agreement being an historical event, it is worth mentioning this important step which led thereto. The first of the two thresholds was achieved on the 22nd of September 2016, as 60 parties representing 47.76 percent of emissions ratified the treaty.⁶⁸¹ The ratification of India on the 2nd of October 2016 brought up higher, the number of country parties to have joined the treaty, accounting for a total of 51.89 percent of global emissions.⁶⁸² On the 4th of October

<http://www.oed.com/view/Entry/244227?redirectedFrom=multilateralism#eid>. (Accessed: 24 September 2016).

See IISD (g) (note 662 above; 42).

⁶⁷⁷ Information available at: http://unfccc.int/paris_agreement/items/9485.php. (Accessed: 20 September 2016).

⁶⁷⁸ See Article 21.1 of the 2015 Paris Agreement.

⁶⁷⁹ Information available at: http://unfccc.int/focus/ndc_registry/items/9433.php. (Accessed: 10 October 2016).

⁶⁸⁰ Information available at: <http://www.news24.com/Green/News/paris-climate-deal-where-are-we-now-20161002-3>. (Accessed: 04 October 2016).

⁶⁸¹ Information available at: http://unfccc.int/paris_agreement/items/9485.php. (Accessed: 20 September 2016).

⁶⁸² ‘The Republic of India has ratified the Paris Agreement on 02 October 2016. With its population of 1.3 billion souls, the country is the world’s third largest emitter after China (20.09%) and the US (17.89%). It accounts for 5.00% of the global emissions.’ More details available at:

2016, the EU Parliament made public its favourable decision by a vote to ratify the Agreement before the COP22.⁶⁸³ The EU accounts for about 12 percent of global emissions.⁶⁸⁴

It also worth signalling the following, concerning the adopted formula for the entry into force of the Paris Agreement, which is similar to the formula applied by the Kyoto protocol.⁶⁸⁵ The Paris Agreement took about more than a year to enter into force since its adoption in December 2015, whereas it took eight years to the Kyoto Protocol with a similar formula.⁶⁸⁶ This can be interpreted as a further success won by Paris in comparison to Kyoto. Notwithstanding the fact that until October 2016, observers feared a delayed entry into force because of China and the USA, the two major emitters worldwide, holding about 40 percent of global emissions.⁶⁸⁷ The two are historically known not to be in a hurry when it comes to taking up international engagements for emissions limitations.⁶⁸⁸ This time however, it was not the case, because both countries ratified the Agreement on the 3rd of September 2016, thus closing the controversy.

5.4.2. Objective of the Paris Agreement

The Paris Agreement aims at enhancing the implementation of the UNFCCC by strengthening the global response to the threat of climate change, as stated in its Article

<http://www.hindustantimes.com/analysis/paris-climate-accord-62-countries-on-board-where-the-deal-stands-now/story-xegfoXrd3UCFGf2vLPfGdN.html>. (Accessed: 09 November 2016).

⁶⁸³Information available at:

http://www.climateactionprogramme.org/news/the_paris_agreement_will_enter_into_force_by_cop22. (Accessed: 04 October 2016).

⁶⁸⁴*Ibid.*

⁶⁸⁵ See note 555 above about the conditions of entry into force of the Kyoto Protocol.

⁶⁸⁶ Ivanova (note 41 above; 412).

⁶⁸⁷*Ibid.*

⁶⁸⁸*Ibid.*

	THE KYOTO PROTOCOL		THE PARIS AGREEMENT	
	SIGNATURE	RATIFICATION	SIGNATURE	RATIFICATION
CHINA	29 th of May 1998	30 th of August 2002	22 nd of April 2016	3 rd of Sept. 2016
USA	12 th of Nov. 1998	Never ratified	22 nd of April 2016	3 rd of Sept. 2016

2.⁶⁸⁹ To that extent, Paris has set a target of limiting the global temperature increase to "well below 2° degrees Celsius", while pursuing efforts to stay below 1.5 degrees Celsius. By urging country parties to endeavour to stay below a 1.5 degrees Celsius increase, the Paris Agreement keeps in mind the situation of the most vulnerable island nations, to whom a 2°C increase will bear disastrous consequences and irreversible damages.⁶⁹⁰ The UNFCCC puts a special emphasis on the particular climate change vulnerability of this group of countries.⁶⁹¹

According to Bodle,⁶⁹² the drafting style of the objective of the Paris Agreement is the result of a careful compromise between the positions of the AOSIS and the LDCs, who demanded a 1.5 degrees Celsius increase as a limit, and some other countries who argued that the temperature goal to be set in the Agreement needed to be credible. While "well below 2 degrees Celsius" represents the operational goal of the Agreement, the 1.5 degrees Celsius constitutes an aspiration which is also established, and therefore needs to be addressed. To that extent, the COP has invited the IPCC to provide a special report on the impacts that will be represented by a 1.5 degrees Celsius increase.⁶⁹³

Countries' INDCs submitted prior to COP21 and updated in 2016 have fallen short of the Agreement's ambition,⁶⁹⁴ as they do not match the objective of limiting the global

⁶⁸⁹ Article 2 of the Paris Agreement states: 'This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

- (a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;
- (b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production;
- (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.'

⁶⁹⁰ L.A. Nurse *et al* "Small islands" In V.R. Barros *et al* *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*' (2014) 1613 at 1614 - 1654.

⁶⁹¹ *Ibid.*

⁶⁹² R. Bodle *et al* (b) 'The Paris Agreement: Analysis, Assessment and Outlook' *Ecologic Institute* at 8. Available http://ecologic.eu/sites/files/event/2016/ecologic_institute_2016_paris_agreement_assessment.pdf. (Accessed: 12 October 2016).

⁶⁹³ *Ibid.*

⁶⁹⁴ The UNFCCC secretariat latest synthesis report on the INDC entitled "Aggregate effect of the Intended Nationally Determined Contributions: an update Synthesis report by the secretariat" based on 162 INDC covering 189 parties to the convention confirms the submitted INDC up to 2016 to fall short of the Paris

warming below 2 degrees Celsius, even if fully implemented.⁶⁹⁵ With the current level of ambitions of the INDCs, the global mean temperature is most likely to increase as high as between 2.7 degrees Celsius, and 3.5 degrees Celsius.⁶⁹⁶ Therefore, there's a need to scale up and accelerate national efforts to raise up the INDCs ambitions.⁶⁹⁷ Obergassel⁶⁹⁸ suggests that such scaling up may start with the large emitters, being the most important contributors to the problem, and having enough resources to address this challenge faster than the smaller emitters which are mostly developing countries.

Two observations are commonly made at this particular point: firstly, there seems to be a lack of adequacy between the long term objective of the Paris Agreement and the strategies adopted to fulfil the said objective.⁶⁹⁹ Secondly the urgency and ambition required from global mitigation actions for the world to stay under the 2 degrees Celsius temperature increase seems not to match with the lack of a binding character towards the substantial provisions regarding emission mitigations actions.⁷⁰⁰ To the two

Agreement requirement. Report available at: <http://unfccc.int/resource/docs/2016/cop22/eng/02.pdf>. (Accessed: 20 September 2016); See Obergassel (note 13 above; 1).

⁶⁹⁵ *Ibid* Obergassel; J. Rogelj *et al* ‘2020 emissions levels required to limit warming to below 2 degrees Celsius’ (2013) 3 (4) NCC 405 at 406.

⁶⁹⁶ Obergassel (note 13 above; 1).

⁶⁹⁷ UNFCCC (2016) ‘Aggregate effect of the Intended Nationally Determined Contributions: an update Synthesis report by the secretariat’ at 15.

⁶⁹⁸ Obergassel (note 13 above; 1).

⁶⁹⁹ ‘First, the Climate Action Tracker (CAT) team analysed 159 INDCs that had been submitted by 8 December 2015. The analysis shows that the global temperature rise by 2100 would be 3.6°C compared to preindustrial levels, if current policies are maintained. However, if the mitigation ambition of the submitted INDCs are fully implemented, and if climate policies of similar ambition are implemented after 2030, the median global warming would be reduced to around 2.7°C by 2100 (and a full range of 2.2–3.4°C). This is still higher than the goal of the Paris Agreement of holding global average warming well below 2°C and to pursue efforts to limit it to 1.5°C. The CAT analysis also calculated the adequacy of individual INDCs based on historical emissions, projected emissions, and policy projections. Accordingly, Bhutan’s contribution seems the most ambitious (sufficient: fully consistent with below 2°C limit). China’s ambition seems “medium” (not consistent with limiting warming below 2°C, as it would require many other countries to make a comparably greater effort and deeper reductions). The EU’s ambition is also considered “medium” (less ambitious than China), as are India (less ambitious than the EU) and the United States (less ambitious than the EU and India). Russia and South Africa are considered “inadequate” (contribute to warming likely to exceed 3–4°C).’ Information retrieved from Mbewa (note 19 above; 14).

⁷⁰⁰ ‘The conclusion is that the current set of INDC’s will be compatible with the 2°C target only if steep, global emission reductions are undertaken in the post-2030 period. An annual reduction rate of 5% from the developed countries and 1% from the least developed, with other countries between these, starting from year 2030 will be needed. Reaching the 2°C might require stronger contribution from developing countries than what is assumed in some of the current analysis. Further, even this scenario would remain below 2°C only with 50% probability.

It appears critical to parties to increase their level of ambitions for the 2030 targets in order to ensure a more robust possibility to remain below 2°C.’ Analysis retrieved from: T. Ekholm & T.J. Lindroos ‘An analysis of countries’ climate change mitigation contributions towards the Paris Agreement’ (2015) VTT Technical Research Centre of Finland Ltd at 22. Available at: <http://urn.fi/URN:ISBN:978-951-38-8378-2>. (Accessed: 28 May 2016).

difficulties above, it adds the weak side of the bottom up approach in an agreement requiring urgency and stringency of action as it is for the Paris Agreement.⁷⁰¹ This is because the approach on which the NDC strategy sits does not give insurance that the Paris objective will not be met. Asselt⁷⁰² fears that the objective of the Paris Agreement will fall through the cracks in a system of nationally determined inadequate offers. Along with others, Asselt justifies his fear by the fact that even the last update in 2016 of the Aggregation of countries' INDCs did not match the objective of limiting global warming below 2 degrees Celsius.⁷⁰³ In fact, had it not been for the complexity of the dynamics surrounding the climate change international negotiations, the emission gap above would have arguably necessitated a top down allocation of the volume of emissions to be reduced, as it was the case under the Kyoto Protocol, but this time extended to all the country parties.⁷⁰⁴

5.4.3. Guiding principles of the Paris Agreement

Any of the principles under the UNFCCC equally applies under the Paris Agreement.⁷⁰⁵ Nevertheless, comparatively to the UNFCCC, Paris has made some readjustments. In some cases, it has added new dimensions to some of the traditional UNFCCC principles, in order to broaden their meaning.⁷⁰⁶ In other cases Paris has merely introduced new principles. We have for instance the case of the Equity and CBDR, in the light of different national circumstances, and the case of the inter-generational equity principle. Although both principles are already present in the UNFCCC, they are given broader meanings under the Paris Agreement, owing to its universal character.⁷⁰⁷

⁷⁰¹ Damian (note 645 above; 4).

⁷⁰² V. Asselt *et al* 'Assessment and Review under a 2015 Climate Change Agreement.' (2015) *Nordic Council of Ministers* at 20. Available at: <http://www.diva-portal.org/smash/get/diva2:797336/FULLTEXT01.pdf> (Accessed: 20 September 2016).

⁷⁰³ *Ibid* Asselt; Obergassel (note 13 above; 1); Rogelj (note 695 above; 405).

⁷⁰⁴ Damian (note 645 above; 4).

⁷⁰⁵ Preamble of the Paris Agreement proclaims: 'In pursuit of the objective of the Convention, and being guided by its principles, including the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.'

⁷⁰⁶ The CBDR principle for instance has developed over time as an answer to developing country parties' calls for fairer rules and procedures in international environmental cooperation. Pauw (note 153 above; 4-7).

⁷⁰⁷ *Ibid* Pauw at 7.

Besides, a principle such as “the adoption of the highest possible ambition in defining goals in climate change matters” constitutes an innovation introduced by the Paris Agreement to serve the purpose of its long-term objective.⁷⁰⁸ Similar observations can be made for concepts such as climate justice, human rights, and the right to health, all enshrined in the Paris Agreement as new climate change concerns, unknown under the UNFCCC.⁷⁰⁹

The next section will discuss the CBDR principle under the Paris Agreement, and further explore the inter-generational equity principle. The principles that Paris shares with the UNFCCC were already discussed under section 3.1.2.2 above. The principle regarding the “adoption of the highest possible ambition in defining goals in climate change matters” will be discussed a bit further.

- (i) The Equity and CBDR-RC Principle, in the light of different national circumstances.

The Equity and CBDR principle is the pivotal principle of both the UNFCCC and the Paris Agreement. The preamble of the Paris Agreement states that:

“Parties to this Agreement, *in pursuit* of the objective of the Convention, and being guided by its principles, including the principle of Equity and Common But Differentiated Responsibilities and Respective Capabilities, in the light of different national circumstances.”

Echoing the preamble, Articles 2.2 of the Agreement provides:

“This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”⁷¹⁰

⁷⁰⁸ See section 5.3.8.2.2 below for more details

⁷⁰⁹ See the preamble of the Paris Agreement

⁷¹⁰ See similar provision under Articles 4.3 and 4.19 of the Paris Agreement.

Under these two provisions of the Agreement, country parties are urged to address climate change on the basis of “equity” and “CBDR-RC principle,” and “in the light of different national circumstances”. The adding of “in the light of different national circumstances” is an innovation of the Paris Agreement. Under the UNFCCC, the formulation of the CBDR principles was slightly different:

“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.”⁷¹¹

Under the above provision, country parties are exhorted to protect the climate system on the basis of “equity” and “in accordance with their common but differentiated responsibilities and respective capabilities”. And, the wording “Accordingly...” means “as a consequence to what has just been said”. Subjecting therefore the sentence that follows to the one that has just been said. Making the provision means that the developed country parties are exhorted to take the lead in combating climate change as a result of the application of the CBDR principle. The wording that forms the CBDR principle in the Paris Agreement does not constitute an identical repetition of the wording of the CBDR principle under the UNFCCC. Therefore, there is a variability in the understanding one may have on the CBDR principle under both treaties. Similar observation is made if one compares the CBDR principle under the UNFCCC and its original enunciation under the 1992 Rio Declaration on sustainable development.⁷¹²

Here is a summary of the changes that has occurred between the two treaties: some constituting elements have been removed whilst others have been added from either.

⁷¹¹ Article 3.1 of the UNFCCC.

⁷¹² See Section 2.3 above for more details about the CBDR Principles.

Table 2: CBDR wording changes between the UNFCCC and the Paris Agreement

Element	UNFCCC	Paris Ag. ⁷¹³
Equity	Present	Present
Common Responsibilities	Present	Present
Differentiated Responsibilities	Present	Present
Climate change Respective Capabilities of countries	Present	Present
Developed countries duty of leading climate change response	Present	Removed
Different national circumstances in the treaty implementation	Not considered	Present

Source: Our own comparison of information from the Paris Agreement and the UNFCCC.

The first change comes from the removal of the recognition of the historical responsibility of developed countries regarding climate change.⁷¹⁴ Under the UNFCCC, the duty to lead in combating climate change was remitted to developed countries parties as a direct consequence of their climate change historical responsibility.⁷¹⁵ This is not the case in the Paris Agreement, where the historical responsibility element has been removed.⁷¹⁶ The second change comes from the introduction of the conditional element: “in the light of different national circumstances” to make the CBDR principle mean: country parties will apply the CBDR principle in the light of their different national circumstances.

Section 5.4.7 below focuses on the differential treatment under the Paris Agreement. It will therefore deconstruct the CBDR principle as it reads under the Agreement, and analyse its constituting elements (refer to table 2 above), in order to understand the essence of the changes that have occurred in the new climate change regime, as far as developing countries are concerned.

⁷¹³ “Paris Ag.” In the table refers to the “Paris Agreement”

⁷¹⁴ C. Bultheel *et al* ‘COP21: success at “the end of the beginning”’ (December 2015) *I4CE Clim Brief* n°38 at 2. Available at: <http://www.i4ce.org/wp-core/wp-content/uploads/2015/12/15-12-18-I4CE-Climate-Brief-38-COP21.pdf>. (Accessed: 12 August 2016).

⁷¹⁵ See the Preamble of the UNFCCC.

⁷¹⁶ Bultheel (note 714 above).

(ii) The inter-generational Equity principle

The inter-generational Equity principle is the second principle to be present in both texts, even though it is more stressed in the Paris Agreement in comparison to the UNFCCC. The principle proclaims that the human race holds the natural environment of the planet in common with other species, people, and with the past, present and future generations.⁷¹⁷ The principle comprises two dimensions: the inter-generational dimension, and the Equity dimension.⁷¹⁸ That is why Weiss⁷¹⁹ once said that humans who live in the present generation are both trustees and beneficiaries of the planet, with the right to use and benefit from it, and the duty to safeguard its robustness and integrity in order to transmit it to the next generation.⁷²⁰ Issues related to the depletion, the access, the use of natural resources, the degradation of the quality of the environment, are the ones that are more of concern with regard to the inter-generational Equity principle, as far as future generations are concerned.⁷²¹

The inter-generational equity is already present in the international law for a long period. It is mentioned as far as in 1946 in the International Convention for the Regulation of Whaling, which recognised the interest of the world to safeguard ‘for future generations the great natural resources represented by the whale stocks.’⁷²² Even the World Commission on Environment and Development has recognised that the ultimate objective of sustainable development was the ability of future generations to reach their own goals.⁷²³ The Rio de Janeiro Declaration on Environment and Development, also mentions the inter-generational equity principle.⁷²⁴ The inter-generational equity has further been enshrined into the preamble (or into body texts) of many international treaties such as the CBD, the Aarhus Convention on Access to Information, Public

⁷¹⁷ E.B. Weiss ‘In Fairness to Future Generations and Sustainable Development.’ (1992) 8 (1) *AUILR* 19 at 20.

⁷¹⁸ *Ibid.*

⁷¹⁹ *Ibid.*

⁷²⁰ *Ibid* at 21.

⁷²¹ *Ibid.*

⁷²² See the Preamble of the international convention for the regulation of whaling, of 1946. Available at: <http://library.arcticportal.org/1863/1/1946%20IC%20for%20the%20Regulation%20of%20Whaling-pdf.pdf>. (Accessed: 20 September 2016).

⁷²³ World Commission on Environment and Development: ‘*Our Common Future Report*’ (1987); Available at: <http://www.un-documents.net/wced-ocf.htm>. (Accessed: 20 August 2016).

⁷²⁴ See note 706 above. See also Section 3.1.2.2 on the principles of the UNFCCC.

Participation in Decision-Making and Access to Justice in Environmental Matters,⁷²⁵ as well as the UNFCCC.⁷²⁶ The inclusion of the inter-generational equity principle in all these multilateral instruments and at last in the Paris Agreement proves sufficiently to its audience in the international environmental law.

The preamble of the Paris Agreement exhorts parties to respect, promote and consider the inter-generational equity dimension as an obligation when they are taking action to address the climate change.⁷²⁷ The Agreement does so in acknowledgement that climate change is a common concern for humankind.⁷²⁸ The UNFCCC on its side, exhorted its country parties to protect the climate system for the benefit of present and future generations of humankind based on equity and in accordance with their common but differentiated responsibilities and respective capabilities.⁷²⁹

In environmental related matters, Weiss argues that two dimensions are to be kept in mind in order to understand the principle of inter-generational equity, this is because one needs to remember the complex and intertwined relationship that exists within humans themselves on the one hand, and between humans and other constituents of the nature on the other hand: firstly, the relationship humans have with the natural system (of which they are a part), and secondly, the relationship humans have with the past and future generations of the living on the planet.⁷³⁰

5.4.4. Legal form of the Paris Agreement

The legal form of the Paris Agreement is an innovation in the history of the international climate change law.⁷³¹ It has been the subject of several discussions that started prior to its adoption.⁷³² As observed by Obergassel, the ‘natural’ legal form of the Paris Agreement should have been shaped as per Article 17 of the UNFCCC, as it was the

⁷²⁵ See Preamble of the Aarhus Convention on Access to Information. Available at: <https://www.unece.org/fileadmin/DAM/env/pp/documents/cep43e.pdf> (accessed: 20 July 2016).

⁷²⁶ Article 3.1 of the UNFCCC.

⁷²⁷ See preamble of the Paris Agreement.

⁷²⁸ *Ibid.*

⁷²⁹ Article 3.1 of the UNFCCC.

⁷³⁰ Weiss (note 717 above; 21).

⁷³¹ Obergassel (note 13 above; 12).

⁷³² *Ibid.*

case for Kyoto. However, it would have forced the US Government to submit the new protocol to the Senate for ratification.⁷³³ Which could amount to a new blockade of the US participation to the Paris Agreement, as it was the case for the Kyoto Protocol.⁷³⁴ Therefore to avoid this situation, the parties in Paris had to opt for a legal form that was not even provided for in the UNFCCC.⁷³⁵ However, even in its innovative form, the Paris' legal approach immediately triggered discussions in the US on whether the Agreement was a treaty by itself, in order to be submitted to the Senate for ratification.⁷³⁶

However, two things are now admitted: Firstly, the Paris Agreement is not an amendment to the UNFCCC, nor a self-standing treaty. This for two reasons: *i.* Paris derives from the UNFCCC under which it was negotiated and adopted.⁷³⁷ In addition, the institutional mechanisms and administrative body of the UNFCCC will be shared with the Paris Agreement;⁷³⁸ *ii.* The objective of the Paris Agreement to enhance the implementation of the UNFCCC recalls its dependency towards its mother treaty.⁷³⁹ Secondly, the Paris Agreement is not a Protocol (as per Article 17.1 of the 1992 UNFCCC) because, unlike the Kyoto Protocol, it does not constitute an addition, or a clarification for the application of the UNFCCC. Paris is instead a platform that furthers the objective of the UNFCCC, by way of introducing many innovations as discussed below.

The Paris Agreement responds to the criteria of a treaty, as provided for under Article 2 of the Vienna Convention on the Law of Treaties.⁷⁴⁰ A treaty is defined as an international agreement that is concluded between states in written form and governed

⁷³³ *Ibid* at 4.

⁷³⁴ *Ibid.*

⁷³⁵ *Ibid.*

⁷³⁶ *Ibid.*

⁷³⁷ See the preamble of the Paris Agreement.

⁷³⁸ As discussed in section 3.1.7.2 above, the decision 1/CP.17 of the COP 17 instituted the Durban Platform for Enhanced Action, which in turn negotiated the Paris Agreement. It was the decision 1/CP.21 at the COP 21 which adopted the Paris Agreement; therefore, the Paris Agreement can be nothing but an emanation of the UNFCCC.

⁷³⁹ Article 2.1 of the Paris Agreement provides: ‘This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty.’; See Bodle (b) (note 692 above; 22); See also Bodansky (f) (note 574 above; 3).

⁷⁴⁰ Obergassel (note 13 above; 12).

by international law,⁷⁴¹ whereas a protocol is defined as an addition, or a clarification to a mother treaty.⁷⁴² In practice, countries often refer to treaties by using different terms, including Agreements, Conventions, Protocols, Charters, Accords, and Amendments,⁷⁴³ that is what made Aust⁷⁴⁴ to declare that what constitutes a treaty is not the title given to an instrument, but rather the intention of its parties to be governed by international law.

5.4.5. Legal Architecture of the Paris Agreement

The Paris Agreement is a multilateral instrument with a hybrid legal approach.⁷⁴⁵ It combines binding and voluntary elements in a top down rules-based system mixed with a bottom-up approach.⁷⁴⁶ The Agreement takes its top down rules-based model from the Kyoto Protocol, and its bottom-up approach from the Copenhagen Accord.⁷⁴⁷ The Assessment and review processes under Article 14.2 and Article 13 of the Agreement as discussed below embody the “top down” part of the system,⁷⁴⁸ whereas the NDC system embodies the top down approach.⁷⁴⁹ As exposed in section 3.2.3 above, the Paris Agreement has to be viewed as the culmination of a process of a regime change that abandons a burden sharing system to adopt a new one that leaves up to country parties the initiative of deciding themselves on their emission limitation targets.⁷⁵⁰ As said by David Roberts,⁷⁵¹ the Paris Agreement sought for a balanced solution that is neither too

⁷⁴¹ Article 2 of the Vienna Convention on the Law of Treaties of May 1966 defines treaty as ‘An international agreement concluded between states in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation.’ See note 399 above; D. Bodansky (g) ‘Legally Binding versus Non-Legally Binding Instruments’ in S. Barrett *et al Towards a Workable and Effective Climate Regime* (2015) 155 at 155. Available at: <http://voxeu.org/sites/default/files/file/bodansky.pdf>. (Accessed: 22 October 2016).

⁷⁴² ‘A protocol has similar legal characteristics as a treaty or a convention, but of a less formal nature. Generally, a protocol amends, supplements or clarifies a multilateral treaty. A protocol may be on any topic relevant to the original treaty and is used either to further address something in the original or parent treaty, or to address a new concern; it is also used to add a procedure for the operation and enforcement of the treaty. A protocol is ‘optional’ because it is not automatically binding on States that have already ratified the original treaty and in order to be binding, the states must independently ratify it.’ Information available at: <http://definitions.uslegal.com/p/protocol/> (Accessed: 19 September 2016).

⁷⁴³ Bodansky (note 741 above; 155).

⁷⁴⁴ A. Aust *Modern treaty law and practice*. Cambridge University Press (2013) 17-18.

⁷⁴⁵ IISD (g) (note 662 above; 43); Ivanova (note 41 above; 414); Bailey (note 667 above; 3).

⁷⁴⁶ See details in section 3.2.3 above.

⁷⁴⁷ IISD (g) (note 662 above; 43); Ivanova (note 41 above; 414).

⁷⁴⁸ Asselt (note 702 above; 20).

⁷⁴⁹ *Ibid.*

⁷⁵⁰ See section 3.2.3 above.

⁷⁵¹ David Roberts “The Conceptual Breakthrough behind the Paris Climate Treaty” (December 2015) vox.com available at: <http://www.vox.com/2015/12/15/10172238/paris-climate-treaty-conceptual-breakthrough>. (Accessed: 10 November 2016).

strong, nor too weak. Because if the Agreement was an overly strong solution, it could be unacceptable to key emitting states, and if it was too weak, it would have been ineffective. Therefore, to safeguard national sovereignties, the Agreement adopted a bottom-up approach, which “reflects rather than drive national policy”⁷⁵² complemented by international norms that ensure transparency and accountability and to stimulate states to progressively ratchet up their efforts, through stronger actions under the NDC system.⁷⁵³

5.4.6. The Legally binding character of the Paris Agreement

Paris is a juxtaposition of both legally binding and legally non-binding provisions.⁷⁵⁴ Legal bindingness reflects a state of mind, mainly that of officials who apply and interpret the law (executive branch officials, judges, and others), but also to some degree the state of the mind of the broad community that the law aims to rule.⁷⁵⁵ Legal bindingness depends on their ‘internal point of view’,⁷⁵⁶ which is a sense that a rule constitutes a legal obligation, and that compliance is consequently required by law, rather than being merely an optional question.⁷⁵⁷ The concept of ‘legally binding’ is distinct from several other dimensions of ‘bindingness’. For instance, it differs from the notion of “*justiciability*”, meaning whether an instrument is *justiciable* – in other words, whether the instrument can be applied by courts or other tribunals.⁷⁵⁸ Second, the concept has also to be distinguished from that of *enforcement*.⁷⁵⁹ Third, the legal form of an agreement has to be distinguished from its *precision*. This is because a legally

⁷⁵² *Ibid.*

⁷⁵³ Full implementation of the INDCs submitted as of December 15, 2015, would put the world on a pathway to 2.4-2.7° C. See ‘Climate Action Tracker, Effect of Current Pledges and Policies on Global Temperature’ Information available at: <http://climateactiontracker.org/global.html>. (Accessed: 10 November 2016).

⁷⁵⁴ Bodansky (g) (note 741 above; 5).

⁷⁵⁵ *Ibid* at 2.

⁷⁵⁶ Statement from the British philosopher HLA Hart, reported by Bodansky (g) (note 741 above; 5).

⁷⁵⁷ *Ibid* Bodansky (g).

⁷⁵⁸ ‘In general, courts will only apply legal instruments, so “*justiciability*” depends on the legal form of an instrument, not on its bindingness. Because the legally binding character of an instrument does not depend on whether there is any court or tribunal with jurisdiction to apply it.’ See Bodansky (g) (note 741 above; 5).

⁷⁵⁹ ‘The enforcement involves the application of sanctions to induce compliance. It is not a necessary condition for an instrument to be legally binding. If an instrument is created through a recognised law-making process, it is then legally binding, whether there are any provisions that are specific to sanctions for its violation. Enforcement of a treaty does not depend on legal form, since non-legal norms can also be enforced through the application of sanctions.’ See Bodansky (g) (note 741 above; 5).

binding instrument can be very vague, while a non-legal instrument is quite precise comparatively. This is ascertained, despite unsuccessful efforts to determine the significance of what constitutes the “bindingness” of a legal provision under the international law.⁷⁶⁰ As discussed in section 5.2.3.1 above, treaties are always “legally binding” instruments under the International law, provided they are created through a recognised law-making process.⁷⁶¹ Besides, under the principle of *pacta sunt servanda*⁷⁶² treaties are binding on the parties that are part to them, and must be implemented by them in good faith.⁷⁶³ In other words, parties are urged to comply with all good faith with their obligations as enshrined under treaties they are part of.

The non-legally binding character of an instrument is not synonymous of a non-existence of any binding character attached to the said instrument.⁷⁶⁴ States have a rooted belief that the legal binding character of an agreement matters,⁷⁶⁵ because the non-legally binding character of an instrument can significantly affect parties’ behaviours.⁷⁶⁶ States also believe that formulating an agreement in legally binding terms signals a stronger commitment, both to states that are part of the agreement, and to the wider body of politics, particularly in a context where domestic acceptance of the treaty requires legislative approval.⁷⁶⁷ However, this is not always the case, because it is proven that some political agreements, such as the 2009 Copenhagen Accord, or 1975 Helsinki Accords,⁷⁶⁸ have had a greater influence on states’ behaviour than their legal counterparts.⁷⁶⁹ The effectiveness of a treaty is without regard of its drafting style,

⁷⁶⁰ R. Stavins *et al* ‘International Cooperation: Agreements and Instruments’ In O.R. Edenhofer *et al* *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (2014) 1001 at 1020.

⁷⁶¹ Bodansky (g) (note 741 above; 2).

⁷⁶² “*pacta sunt servanda*” is a latin expression which means: “the agreements and stipulations of the parties to a contract must be observed”. See Collins Dictionary of Law. (2006). Available at: <http://legal-dictionary.thefreedictionary.com/pacta+sunt+servanda> (Accessed: 17 September 2016).

⁷⁶³ Article 26 of the Vienna Convention on the Law of the Treaties.

⁷⁶⁴ Bodansky (g) (note 741 above; 2).

⁷⁶⁵ *Ibid.*

⁷⁶⁶ D. Shelton ‘Commitment and compliance: The role of non-binding norms in the international legal system’ (2003) 2013-50 *GW LSRP* 1 at 13-15.

⁷⁶⁷ Bodansky (g) (note 741 above; 2).

⁷⁶⁸ ‘The Helsinki Final Act was an agreement signed by 35 nations that concluded the Conference on Security and Cooperation in Europe, held in Helsinki, Finland. The multifaceted Act addressed a range of prominent global issues and in so doing had a far-reaching effect on the Cold War and U.S.-Soviet relations.’ Information available at: <https://history.state.gov/milestones/1969-1976/helsinki>. (Accessed: 19 September 2016).

⁷⁶⁹ Bodansky (g) (note 741 above; 2).

whether or not it is written in a legally binding form, although a legally binding style will comparatively have greater effect on domestic politics.⁷⁷⁰ On the view of Barret,⁷⁷¹ the effectiveness of an international regime (defined by a treaty) is rather a function of three factors that are the ambition of its provisions, the level of participation by states, and the degree to which states are compliant.

Besides, the legally binding character of an instrument does not imply that every provision in the said instrument creates a legally binding obligation, as noticed by Bodansky.⁷⁷² Treaties are often a mix of legally binding and legally non-binding provisions.⁷⁷³ The binding character of a provision within a treaty depends on the vocabulary that particular provision uses; for instance, the verbal forms ‘shall’ and ‘should’ used in provisions indicate different scopes of the legal bindingness of a provision, which is often already established in the mind of law makers.⁷⁷⁴

Whilst analysing the Paris Agreement, Bodansky⁷⁷⁵ noticed that in various matters, appropriate “formulas”, were carefully referred to by the Agreement to create the expected legal outcomes from country parties: Here after follows their summary:

⁷⁷⁰ *Ibid* at 8.

⁷⁷¹ See S. Barrett *Environment and Statecraft: The Strategy of Environmental Treaty-Making* Oxford: OUP (2003) are available at:

http://s3.amazonaws.com/academia.edu.documents/6570953/environmentandstatecraftbarrettjune9th.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1480595886&Signature=sr%2BGUMy03U7XaDQ68A%2F8ZeL%2FRgo%3D&response-content-disposition=inline%3B%20filename%3DEnvironment_and_statecraft.pdf. (Accessed: May 2016).

⁷⁷² Bodansky (g) (note 741 above; 2).

⁷⁷³ *Ibid*.

⁷⁷⁴ *Ibid* at 4.

⁷⁷⁵ Bodansky (f) (note 574 above; 13).

Table 3: Verbal forms and corresponding legal outcomes for country parties to the Paris Agreement in determination of parties' obligations

Verbal forms	Corresponding legal outcomes for country parties
'Shall'	Used to create a legally binding obligation
'Should'	Used to create recommendations that are not legally binding
'Encourage'	Used to create recommendations that are not legally binding
'Will'	Used to express expectations that are not legally binding
"Are to"	Used to express expectations that are not legally binding
'May'	Used to reflect a permission that is not legally binding

The word ‘shall’ was used wherever there was a consensus to create a legally binding obligation, whilst ‘should’ or ‘encourage’ were used to create different levels of recommendations. Other expressions such as ‘will’ or “are to” were used to express expectations, whereas “may” was used to reflect permission.⁷⁷⁶ Some styles and verbs were consensually removed or replaced, especially those that were going to create further legally binding obligations, in addition to the ones country parties already agreed to.⁷⁷⁷

As also reported by the Earth bulletin of negotiations on the Paris forum, many further adjustments were done on the final draft of the Agreement that was submitted for adoption in order to insure that the balanced approach be kept throughout the treaty.⁷⁷⁸ As a consequence, the Paris Agreement had more legally non-binding obligations in comparison to the legally bindings.⁷⁷⁹ Some analysts argued that the minimisation of the

⁷⁷⁶ *Ibid.*

⁷⁷⁷ ‘There was a high risk of non-ratification of the Paris Agreement by some major emitters, such as the US, given the prescripts of that country’s national legislation in the subject of ratification of international treaties.’ Information available at: <https://newclimate.org/2015/12/14/what-the-paris-agreement-means-for-global-climate-change-mitigation/> (Accessed: 21 August 2016); IISD (g) (note 662 above; 43); ‘Arguably, if a provision said “shall” and hence created a legal obligation, Senate or Congressional approval might have been required first for U.S. participation to the treaty, whereas if “should” was used, the Paris Agreement could be accepted by the President as a presidential-executive agreement, given the lack of legal obligation attached thereto’. See Bodansky (f) (note 574 above; 13); The Details on the debate on whether or not in the views of the USA the Paris Agreement constitutes a treaty under international law, is available at: <http://beforeitsnews.com/environment/2015/12/is-the-paris-climate-agreement-a-treaty-2543856.html>. (Accessed: 19 August 2016).

⁷⁷⁸ IISD (g) (note 662 above; 43).

⁷⁷⁹ Analysis available at: <https://newclimate.org>. (Accessed: 21 August 2016); See note 777 above.

binding character would impact the seriousness of the Paris Agreement, and further impact the ambitious character of the climate change actions at national levels.⁷⁸⁰

For instance, Article 3 states that all parties “are to undertake and communicate ambitious efforts with the view of achieving the purpose of the Agreement”.⁷⁸¹ The formula “are to undertake” used in this provision makes the “ambitious character of national mitigation targets that countries have to submit as NDCs” to be a non-legally binding obligation. Also, the use of the phrase “countries are to undertake” in the final form of the Paris Agreement has made the whole provision more of an expectation than a legal obligation on countries, comparatively to the legally binding formula “countries shall undertake”, that was proposed in the amended original draft of the Agreement.⁷⁸²

The same observation applies to Article 4.4 which exhorts developed countries to continue taking the lead in the fight against climate change by undertaking economy wide absolute emission reduction targets.⁷⁸³ In the case of this Article, the word "shall" was originally used for developed countries, whereas "should" was used for developing countries, but the United States refused this differentiation, and further argued that by keeping “shall” in that provision, the ratification of the Paris Agreement by the USA would have required the approval of the congress.⁷⁸⁴ Therefore, negotiators replaced “shall” by “should” just before the adoption of the final version of the Agreement. These are some of the many examples that illustrates the way countries avoided a legally binding obligation, in favour of a legally non-binding because of their national interests.⁷⁸⁵

Indeed, it is surprising to see that parties did not agree about writing in a legally binding form, many substantive provisions of the Agreement, such as the parties’ emission mitigation contributions,⁷⁸⁶ this despite the fact that they themselves acknowledged that

⁷⁸⁰ *Ibid.*

⁷⁸¹ See Article 3 of the Paris Agreement at note 40 above.

⁷⁸² IISD (g) (note 662 above; 43).

⁷⁸³ Article 4.4 of the Paris Agreement.

⁷⁸⁴ IISD (g) (note 662 above; 43).

⁷⁸⁵ *Ibid.*

⁷⁸⁶ Bodansky (f) (note 574 above; 13); Bodle (b) (note 692 above; 22).

climate change was a more serious current global and urgent threat.⁷⁸⁷ This constitutes one of the biggest shortcoming of the Agreement on the views of many scholars.⁷⁸⁸ The thing being, if a country produces its NDC with no convincing mitigation targets, comparatively to its real potential, there is nothing concrete the Agreement can do with that regard. Besides, if a country does not comply with its mitigation obligations under the Agreement, there is no provision for retaliation.⁷⁸⁹ Therefore, the concerns about the adequacy of the objective of the Agreement and the means aligned to reach them.⁷⁹⁰

However, the selected vocabularies ultimately make the Paris Agreement faithfully reflect what the political consensus between the countries was,⁷⁹¹ and explain its great flexibility, offering considerable margins of manoeuvre to country parties. This is because the priority in Paris was put on a universal participation.⁷⁹² Although for some such flexibility represents a “good drafting strategy” that has allowed a universal adherence, for others it is a “source of weaknesses”, with the potential of diminishing the Agreement’s “strength”.⁷⁹³ Falkner⁷⁹⁴ rather finds a justification to the Paris’ flexibility in the context of its adoption which was a post Kyoto and Copenhagen, dominated by regular deadlocks in climate change negotiations.⁷⁹⁵ Therefore, in such conditions, states could not afford to adopt a new climate change instrument that offered no enough flexibility, as did Paris.⁷⁹⁶

For Bodansky and Sterk,⁷⁹⁷ the Paris Agreement reflects a careful balancing of various potential forces, a trade-off between the diverging positions of major emitting countries. Sterk’s opinion is that the Agreement was designed to carefully avoid barriers to

⁷⁸⁷ IISD (g) (note 662 above; 43).

⁷⁸⁸ Bodansky (f) (note 574 above; 13); Bodle (b) (note 692 above; 22).

⁷⁸⁹ Bettina LAVILLE ‘« Contraindre les États et les éléments ? » : le pari de... l’Accord de Paris’ (February 2016) *EEIRMLJ* 15 at 20.

⁷⁹⁰ *Ibid.*

⁷⁹¹ Bodansky (f) (note 574 above; 13).

⁷⁹² Information available at: <http://www.climatelawandpolicy.com/en/blog/29-blog-climate-change/102-analysis-paris.html> (Accessed: 20 August 2016).

⁷⁹³ See note 777 above for the analysis.

⁷⁹⁴ R. Falkner ‘The Crisis of Environmental Multilateralism: A Liberal Response’ in D. Brack *et al* *The Green Book: New Directions for Liberals in Government* (2013) at 354. Available at: http://static1.squarespace.com/static/538a0f32e4b0e9ab915750a1/t/538db535e4b0f4bbdccb7062/1401795893518/Falkner_2013_Environmental_Multilateralism.pdf. (Accessed: 17 September 2016).

⁷⁹⁵ R. Falkner (note 794 above; 358).

⁷⁹⁶ *Ibid* Falkner at 354.

⁷⁹⁷ Sterk (note 664 above; 8).

countries' effective participation to the new regime.⁷⁹⁸ Ivanova made a similar observation,⁷⁹⁹ thinking that the special form of the Paris Agreement, which combines binding and voluntary elements was designed to enable the USA to adopt the Agreement through executive action rather than formal US Senate approval.⁸⁰⁰ However, at this particular point, Bodansky⁸⁰¹ is of a slightly different opinion, because he thinks that the hybrid architecture of Paris was rather a quest from states themselves, following the Copenhagen failure. He says states urged negotiators to develop a hybrid architecture which would combine a bottom-up approach in order to promote flexibility and participation by parties, and a top down approach in order to promote national and international ambitions.⁸⁰²

Returning to the legal binding character of the Paris Agreement, most of its legally binding provisions establish obligations of result that are subject to review.⁸⁰³ The requirement from parties to submit certain types of information at certain periods of time, and report or account on climate change related issues is a binding obligation.⁸⁰⁴ Provisions that refer to the procedural elements are the ones that form the bulk of the Agreement's legally-binding obligations,⁸⁰⁵ whereas provisions that refer to substantive elements are the legally non-binding.⁸⁰⁶ Countries contents of the NDCs for instance are not legally binding.⁸⁰⁷

5.4.7. Differential treatment between countries under the Paris Agreement

It is said that the Paris Agreement constitutes a turning point in the history of climate change, mainly because of the way in which it dealt with the former UNFCCC

⁷⁹⁸ Information available at: <http://www.climateandpolicy.com/en/blog/29-blog-climate-change/102-analysis-paris.html> (Accessed: 20 August 2016).

⁷⁹⁹ Ivanova (note 41 above; 413).

⁸⁰⁰ Explanation on the USA executive action and Senate approval available at: http://www.senate.gov/legislative/legislative_home.htm. (Accessed: 15 September 2016); see also <http://www.heritage.org/research/reports/2015/09/obamas-plan-to-avoid-senate-review-of-the-paris-protocol>. (Accessed: 17 August 2016); see also: http://www.senate.gov/legislative/legislative_home.htm. (Accessed: 15 September 2016).

⁸⁰¹ Bodansky (f) (note 574 above; 18).

⁸⁰² *Ibid.*

⁸⁰³ C. Voigt 'The Paris Agreement: What is the standard of conduct for parties?' (2016) *QIL* 26 17 at 28.

⁸⁰⁴ *Ibid.*

⁸⁰⁵ IISD (g) (note 662 above; 43).

⁸⁰⁶ *Ibid.*

⁸⁰⁷ *Ibid.*

differential treatment.⁸⁰⁸ Paris abandoned the notion of Annexes which is the corner stone of the UNFCCC and Kyoto regime,⁸⁰⁹ in favour of a flexible and calibrated approach that takes into account changes in a country's circumstances and capacities over time.⁸¹⁰ Bodle and Damian Michel⁸¹¹ evoke rather the abandonment of the traditional two-speed approach of the climate change regime which differentiates developed countries from developing countries,⁸¹² whereas Mbeva⁸¹³ argued that Paris managed to adjust the same UNFCCC approach by moving beyond the limits that were imposed by the cleavage the Convention instituted, applying a "subtle differentiation".⁸¹⁴ On the view Bultheel,⁸¹⁵ the differentiation between developed and developing countries is still present in the Paris Agreement, but in a much more attenuated form, compare to the Kyoto Protocol and the UNFCCC.

The approach to differentiation which is applied in the Paris Agreement amounts to a self-differentiation system whereby a country which is willing to take on more ambitions than its actual status requires is welcome to do so.⁸¹⁶ That is why Bultheel came to the conclusion that, the evolution of the differential regime in the Paris Agreement was a proof of how international law can adapt to the realities of the global economy, and accommodate the rise of emerging countries.

Despite the fact that the above scholars have all differently commented on the Paris Agreement because of the different angles from which they based their judgements, they all have one constant thing in their reasoning, which is the fact that they have all noticed that with respect to the implementation of its new regime, the Paris Agreement had various differential provisions regarding the various domains that constitute the climate change response (mitigation, adaptation, finances, and capacity building).⁸¹⁷

⁸⁰⁸ Bodle (b) (note 692 above; 2).

⁸⁰⁹ *Ibid.*

⁸¹⁰ Bodansky (f) (note 574 above; 3).

⁸¹¹ Damian (note 645 above; 19); Bodle (b) (note 692 above; 2).

⁸¹² Bodansky (f) (note 574 above; 3); *Ibid* Bodle (b).

⁸¹³ Mbeva (note 19 above; 8-9).

⁸¹⁴ Bodle (b) (note 692 above; 2).

⁸¹⁵ Bultheel (note 714; 3).

⁸¹⁶ *Ibid.*

⁸¹⁷ Bodansky (f) (note 574 above; 3).

Even though the Paris Agreement does not give any definition of what constitutes a “developed country” or a “developing country”, there is little chance for confusion with that regard.⁸¹⁸ In the present study, it is presumed that any mention of “developing country” by the Agreement refers to countries that are “Non-Annex I” under the UNFCCC, whilst references to “developed countries” refers those countries that are “Annex I” and “Annex II”. The fact is the Paris Agreement avoided to undertake at present a pre-classification of countries parties as did the UNFCCC.⁸¹⁹ This was because of two reasons: firstly, it left up to countries the option of a self-assessment in order to find out in which group their respective national circumstances would fit better;⁸²⁰ secondly, the economic situation of a country may evolve over time, and make it move from one group to another.⁸²¹ For instance, a country that is currently a “developing” country may evolve and become a “developed” country over time, in which case, it would assume new responsibilities according to its new status.⁸²² Mbeva nevertheless complains about the fact that countries’ responsibilities had become less clear,⁸²³ and that for many countries, it had become unclear whether they are considered developed or developing countries.⁸²⁴

However, scholars such as Backer and Mc. Kenzie⁸²⁵ express their satisfaction about the sensitive character of the “softer differential approach” brought by Paris. For them, that approach is more apt to capture changes that have occurred and that might occur in future in the socio-economic situation of developing countries'. The approach further reinforces the chances of the Agreement to live longer than its predecessor, the Kyoto

⁸¹⁸ See section 2.2 above.

⁸¹⁹ See Articles 4.2 (f) and 4.2 (g) of the UNFCCC.

⁸²⁰ Backer (note 51 above; 7); See also Mbeva (note 19 above; 8-9).

⁸²¹ *Ibid* Backer; see also section 5.3.7.1 below.

⁸²² See Mbeva (note 19 above; 9-10). In this regard, the curiosity of the author goes to the possibility of an opposite question: what will be the case for a former developed country that has becomes economically defaulting to the extent that it is no longer responsive to the criteria of being developed country? Will it be formally degraded from its rank of a developed country to become a developing country? Will it therefore have reduced its load of climate change to fit its new status?

⁸²³ ‘For example, Qatar has some of the world’s highest per capita incomes and per capita emissions (World Bank, 2015), but it claims to be a developing country in its INDC. Chile, South Korea and Mexico are members of the Organisation for Economic Cooperation and Development (OECD) – does that make them developed countries?’ See Mbeva (note 19 above; 8).

⁸²⁴ *Ibid*.

⁸²⁵ Backer (note 51 above; 7).

Protocol,⁸²⁶ as it makes the Agreement bring more equity and justice into the climate change regime.

Many aspects of the Paris differential regime can be seen throughout its provisions: Article 3 for instance calls for a “support” in favour of developing countries to allow them to effectively implement the Agreement, because parties are all invited to undertake and communicate ambitious and progressive climate change efforts over time.⁸²⁷ Article 4.1 creates a differentiation between developing and developed countries for the peaking of greenhouse gas emissions, recognising that the peaking would take longer to be reached by developing country parties than by the developed ones.⁸²⁸ In other words, there would be a certain degree of tolerance in favour of developing countries’ emissions augmentation after the entry into force of the Paris Agreement, comparatively to emissions from developed countries that do not benefit of such.

The universality of the Paris Agreement that reinforces its differential approach brings a new dimension to the interpretation of the principle of common but differentiated responsibilities in the climate change field.⁸²⁹ As also argued by Zhang⁸³⁰ a year before the adoption of the Paris Agreement, the world needs further reflections and reinterpretation of the CBDR principle in order to save the planet, in the sense of a new global agreement that will be legally binding for all, as also claimed by the Doha Climate Gateway. Besides, the Paris Agreement emphasises that country parties may take full account of the Equity principle, and the respective capabilities of parties in the implementation of the treaty, in the light of different national circumstances.⁸³¹ The issue of emission mitigation or limitation, as well as the peaking of GHG emission are all the subject of its new differential treatment between countries.⁸³²

⁸²⁶ *Ibid.*

⁸²⁷ See Article 3 of the Paris Agreement at note 40 above.

⁸²⁸ Article 4.1 of the Paris Agreement states: ‘in order to achieve the long-term temperature goal set out in Article 2, parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties.’

⁸²⁹ Bodle (b) (note 692 above; 2).

⁸³⁰ Zhang (note 587 above; 443).

⁸³¹ Article 2.2 of the Paris Agreement states: ‘This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.’

⁸³² Mbeva (note 19 above; 8-9).

5.4.7.1. The “Equity and Common But Differentiated Responsibilities and Respective capabilities principle, in light of different national circumstances” under the Paris Agreement

The CBDR principle is a pivotal principle in the climate change international regime.⁸³³ It can be viewed as one way of integrating the environment and development at international level, as well as outlining the proportional commitments countries make in comparison to others;⁸³⁴ it also refers to the “justness” of these commitments.⁸³⁵ Article 2.2 of the Paris Agreement urges parties to implement the Agreement in reflection of Equity and the principle of CBDR-RC, in the light of different national circumstances.⁸³⁶ The preamble of the Agreement makes the same call as Article 2.2.⁸³⁷ This shows that the Equity and Common but Differentiated Responsibilities and Respective capabilities principle occupy the centre of the Paris Agreement.⁸³⁸

The basic formulation of the CBDR principle referred to in the climate change regime is found in the UNFCCC. It focuses on the “CBDR” radical elements, to which it alternatively adds the following elements depending on the contexts: *i.* the ‘respective capabilities and country parties’ social and economic conditions’, *ii.* the ‘respective capabilities’ element, and *iii.* the ‘parties’ specific national and regional development priorities, objectives and circumstances.’⁸³⁹ The UNFCCC also once associated the CBDR element with equity,⁸⁴⁰ whilst exhorting country parties to protect the climate system for the benefit of present and future generations of humankind in Article 3.1.⁸⁴¹

Compared to the UNFCCC formulation, one may say that the Paris Agreement chooses a formulation that is significantly different. It adds, and then intimately links to the basic

⁸³³ See section 2.3 above for more details on the CBDR principle.

⁸³⁴ Pauw (note 153 above; 20).

⁸³⁵ *Ibid.*

⁸³⁶ Article 2.2 of the Paris Agreement; see also note 829 above.

⁸³⁷ Preamble of the Paris Agreement.

⁸³⁸ Refer to note 836 above.

⁸³⁹ The preamble of the UNFCCC uses the formula: “CBDR and respective capabilities and their social and economic conditions.” Article 3.1 uses the formula: “CBDR and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.” Article 4.1 uses the formula: “CBDR and their specific national and regional development priorities, objectives and circumstances.” See section 2.3 above for more details.

⁸⁴⁰ Article 3.1 of the UNFCCC; See also note 202 above.

⁸⁴¹ *Ibid* UNFCCC.

formulation of the CBDR two more elements that are the “Equity” and the “respective capabilities, in the light of different national circumstances”. The Agreement does so in order to render the interpretation of the CBDR principle more adequately towards the objective of the Agreement and thus avoid any future misuse of it by parties.⁸⁴² A further aspect that shows the importance of the two added elements for the new regime is the frequency under which they are utilised under the Paris Agreement. Paris refers to the “respective capabilities, in the light of different national circumstances” element up to four times, and to the Equity element up to five times, whilst in the UNFCCC both elements are referred to only once, and not a single time in the Kyoto Protocol.⁸⁴³

At the opening session of the COP 21, the UN General Assembly President Mogens Lykketoft addressed the negotiating parties to recall them that the Paris meeting needed to deliver a political agreement with equity and ambition at its core.⁸⁴⁴ Such insistence reinforced the importance of the Equity principle. Therefore, it is not surprising to notice that the Agreement has put it in the centre of its preoccupations, as claimed by some scholars prior to the adoption of the Paris Agreement.⁸⁴⁵ The thing is, over the years, there arose several concerns on whether the Equity principle was observed in the climate change regime.⁸⁴⁶ This question often led to deadlocks in negotiations, because some countries, based on the interpretation of the CBDR principle of 1992,⁸⁴⁷ seemed to act as if they were granted a conventional unrestricted liberty to emit, whilst others were the object of emissions bans.⁸⁴⁸

⁸⁴² The preamble of the Paris Agreement proclaims that parties to the Agreement are being guided by its principles, including the principle of equity and CBDR-RC.’ See note 705 and section 5.3.3; See also note 829 for Article 2. 2 of the Paris Agreement; Article 4. 3 ‘Each party’s successive Nationally Determined Contribution will represent a progression beyond the Party’s then current Nationally Determined Contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.’ Article 4. 19. All Parties should strive to formulate and communicate long-term low greenhouse gas emission development strategies, mindful of Article 2 taking into account their common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.

⁸⁴³ Mentioned five times in the Paris Agreement, once in the UNFCCC, and not mentioned at all in the Kyoto Protocol.

⁸⁴⁴ IISD (g) (note 662 above; 3).

⁸⁴⁵ See for instance Werner (note 252 above; 166); See also Voigt (note 195 above; 50).

⁸⁴⁶ Obergassel (note 13 above; 14).

⁸⁴⁷ *Ibid.*

⁸⁴⁸ *Ibid.*

Prior to the COP21, there was already a controversy on whether to explicitly reference the Convention's principle of CBDR-RC.⁸⁴⁹ The USA opposed, including any references thereto in the Durban Platform's decision, reading it as a code for continuing the UNFCCC Annex system.⁸⁵⁰ However, in 2014, the Chinese and US governments released a joint statement on climate change, in which both countries announced to be committed to reaching an ambitious 2015 universal climate change agreement that reflects the principle of CBDR and respective capabilities, "in light of different national circumstances".⁸⁵¹ It was evident that both main emitter countries agreed to add to the basic formulation of the CBDR the phrase "in light of different national circumstances". The US demanded for a long time a "dynamic" interpretation of the CBDR, or even its ban from the climate change regime.⁸⁵²

This addition from the US and China's joint statement was almost automatically included in the Lima Call for Climate Action which was adopted a few weeks later. An attempt to also include it automatically in the Paris Agreement met resistance because of the pressure from developing countries, before they finally accepted it.⁸⁵³ Although developing countries won the battle of the re-iteration of the CBDR principle in the Paris Agreement, they lost on its new meaning. The addition of "in light of different national circumstances" to the CBDR's basic formulation meant the end of the UNFCCC differential system, and the move beyond the static and rigid binary cleavage.⁸⁵⁴

⁸⁴⁹ Sterk (note 664 above).

⁸⁵⁰ *Ibid.*

⁸⁵¹ '1. The USA and China have a critical role to play in combating global climate change. The seriousness of the challenge calls upon the two sides to work constructively together for the common good. 2. To this end, President Barack Obama and President Xi Jinping reaffirmed the importance of strengthening bilateral cooperation on climate change and to work together, and with other countries, to adopt a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties at Paris, in 2015. They are committed to reaching an ambitious 2015 agreement that reflects the principle of common but differentiated responsibilities and respective capabilities, in light of different national circumstances.' See the 2014 US - China joint announcement on climate change. Information available at: <https://www.whitehouse.gov/the-press-office/2014/11/11/us-china-joint-announcement-climate-change>. (Accessed: 10 September 2016); See also IISD (g) (note 662 above; 43).

⁸⁵² Obergassel (note 13 above; 14).

⁸⁵³ *Ibid.*

⁸⁵⁴ *Ibid.*

As also discussed by Lee,⁸⁵⁵ this evolution of the USA position suggested that the country became willing to adopt emissions mitigation targets in future, on the condition that the CBDR principle was formulated in a way to include binding responsibilities for both developing and developed countries. Similarly for China, although zealously advocating for the continuation of the Kyoto differential regime until a recent past, the joint statement proved the country's will to move towards a revision of its interpretation of the CBDR principle in order to be able to take on emissions limitations targets.⁸⁵⁶ In the period leading to the COP 2015, calls towards a reinterpretation of the CBDR principle multiplied, in prospecton for a more relevant new climate change regime. Scholars such as Werner⁸⁵⁷ and others made noticeable suggestions to that end.

Developed countries historical responsibility

Regarding the historical responsibility developed countries have towards the climate change, the Paris Agreement stays silent on the matter. It has removed any reference to the climate change historical responsibility that previously laid on the developed countries. That is the reason why Foran⁸⁵⁸ argued that the Paris Agreement was an obscene regression on the founding principles of the UNFCCC which promised to deal forthrightly with the scale of the climate change crisis, and to ensure that the responsible for global warming pay the fair share of the costs associated with the effort to solve the problem. The preamble of the UNFCCC which states: "Noting that the largest share of historical and current global emissions of GHG has originated in developed countries ..."⁸⁵⁹ had no equivalent in the Paris Agreement. This being, some scholars concluded that the acknowledgement of the climate change historical responsibility of developed countries was finally removed from the new treaty, and therefore banned from further considerations in future climate negotiations.⁸⁶⁰

⁸⁵⁵ Lee (note 33 above; 11).

⁸⁵⁶ *Ibid.*

⁸⁵⁷ Werner (note 252 above; 166); Elzen (note 340 above; 247); Brunnée (a) (note 265 above; 607).

⁸⁵⁸ Analysis available at: <http://climateandcapitalism.com/2016/01/10/22400/> (Accessed: 20 August 2016).

⁸⁵⁹ See the Preamble of the UNFCCC.

⁸⁶⁰ See Mbeva (note 19 above; 17-20).

This has pushed Bodansky to declare that the “firewall”⁸⁶¹ represented by the traditional separation between countries was overturned at Paris.⁸⁶² However, despite the aforementioned remark, the Paris Agreement still recognises that the “national circumstances” of developed countries were better in comparison with those of developing countries.⁸⁶³ That is why it maintains its request to see developed countries playing a leading role in the fight against climate change. Article 4.4 of the Paris Agreement is eloquent with that regard. It exhorts developed country parties to continue taking the lead through undertaking economy wide absolute emission reduction targets, whilst exhorting developing countries to continue enhancing their mitigation efforts, and move towards economy wide emission reduction targets in the light of their national circumstances over time.⁸⁶⁴ Still, regarding this chapter of historical responsibility, Article 4.5 of the Agreement enjoins states to provide support to developing country parties for the implementation of their obligations under Article 4, recognising that only an enhanced support will allow them adopt higher climate ambitions.⁸⁶⁵

We will conclude this section by considering the remark of Dubois⁸⁶⁶ about the pursuit of equality between country parties in the climate change regime: Dubois draws attention to the fact that, in the same manner as it was difficult to maintain the traditional differential treatment between developing and developed countries, it will also be difficult, if not a mistake, to seek for a formal equality between country parties of the new regime.⁸⁶⁷ The issue of differentiation between countries in the modern context of international climate change law has been reckoned as a matter of both fairness and effectiveness.⁸⁶⁸ To that extent, the Paris Agreement represents an evolution to the way country parties address the issue of differentiation.⁸⁶⁹ It has managed to avoid the trap that caught up the UNFCCC in 1992.⁸⁷⁰ Under the Paris Agreement, country parties are

⁸⁶¹ See note 652 for explanations on “firewall”.

⁸⁶² Because the historical accountability of developed countries was a logical result of the application of the CBDR principle, according to the preamble of the UNFCCC.

⁸⁶³ Article 4.4 of the Paris Agreement.

⁸⁶⁴ *Ibid.*

⁸⁶⁵ *Ibid.*

⁸⁶⁶ Dubois (note 32 above; 152).

⁸⁶⁷ *Ibid.*

⁸⁶⁸ *Ibid.*

⁸⁶⁹ IISD (g) (note 662 above; 43).

⁸⁷⁰ Dubois (note 32 above; 152).

still differentiated, but not like under the UNFCCC. The Agreement insures a balance between the necessity of climate change burden sharing and the urgency to interiorise principles such as fairness and equity, to preserve undiluted the effectiveness of the Agreement itself.

5.4.8. The Greenhouse Gases emission mitigation by developing countries under the Paris Agreement

5.4.8.1. Context of the application of the obligation to emission mitigation

The international climate change response is organised around two strategies that are the mitigation of GHG emissions, and the adaptation to the effects of climate change.⁸⁷¹ Mitigation refers to any human intervention aiming at reducing the emissions of GHG in the atmosphere either by acting at their sources level or by enhancing their removal by “sinks”.⁸⁷² In the last 200 years, the levels of CO₂ have risen by over 30 percent, resulting in global temperature rise of about 0.6 – 0.8 degree Celsius.⁸⁷³ The Paris Agreement urges countries to work in order to limit the global temperature rise at well below two Celsius degrees. To reach that level of ambition, there is need for a global action on emission mitigation, especially from all the emitters, including those among developing countries.⁸⁷⁴ Because recent findings by Wei’s⁸⁷⁵ have attributed to developing countries 63-65 percent of current global emissions,⁸⁷⁶ and 39 –47 percent

⁸⁷¹ Adaptation is the second climate change core approach. See for more details <http://unfccc.int/focus/adaptation/items/6999.php>. (Accessed: 25 October 2016).

⁸⁷² See section 2.1 for more details on Mitigation and Sinks.

⁸⁷³ *Ibid.*

⁸⁷⁴ Information available at:

http://css.snre.umich.edu/sites/default/files/Climate_Change_Policy_and_Mitigation_Factsheet_CSS05-20.pdf. (Accessed: 7 August 2016).

⁸⁷⁵ T. Wei *et al* ‘Developed and developing world contributions to climate system change based on carbon dioxide, methane and nitrous oxide emissions’ (2011) *Adv. Atmos. Sci.* 33 (5) 632 at 632.

⁸⁷⁶

Developing Country / Region	Share in global emissions
China	23.00 %
India	5.00 %
Middle east and North of Africa	8.00 %
Sub-Saharan Africa	7.00 %
Latin America	9.00 %
Other developing C.	11.00 %
Total	63.00 %

of contribution to the global warming during the period from 1850 to 2005. Besides that, their emissions are most likely to continue increasing because some of them are planning to build large coal-fired power plants in the next years.⁸⁷⁷ It is against such a context that the Paris Agreement have introduced universal emissions mitigation obligation, on the base of which developing countries will make their contributions to the ongoing global effort to curb climate change. Regarding the said mitigation obligation, three features of the Paris Agreement seem important to be outlined:

Firstly, from a country parties' perspective, the Paris Agreement has two sorts of provisions: Provisions that apply to all country parties,⁸⁷⁸ and provisions that apply to specific groups of countries that present particular climate change vulnerabilities, as it is the case for the LDC, along with the small islands developing states.⁸⁷⁹ An illustration to this can be taken from Article 3 of the Paris Agreement which applies to all the countries, whereas Article 4.6 applies only to the LDC.

Secondly, from a conditional perspective, the realisation of some obligations that parties have are conditional, whilst others are unconditional. For instance, the realisation of the obligations of developing countries as per Article 4 is conditioned to the support to be provided to them under the Agreement. Article 9.1 contains a similar exigency.⁸⁸⁰

Information available at: <https://judithcurry.com/2016/08/16/cop21-developing-countries>. (Accessed: 10 September 2016); See also <http://www.cgdev.org/media/developing-countries-are-responsible-63-percent-current-carbon-emissions>. (Accessed: 10 September 2016).

⁸⁷⁷ ‘In an unusually stark warning, the World Bank president, Jim Yong Kim, noted that countries in south and south-east Asia were on track to build hundreds more coal-fired power plants in the next 20 years – despite promises made at Paris to cut greenhouse gas emissions and pivot to a clean energy future.’ Information available at: <http://www.climatechangenews.com/2016/05/06/world-bank-asia-coal-power-plant-plans-are-disaster-for-climate>. (Accessed: 10 September 2016).

⁸⁷⁸ See for instance Articles 3 and 4.6 of the Paris Agreement.

⁸⁷⁹ Article 4.6 of the Paris Agreement provides ‘The least developed countries and small island developing States may prepare and communicate strategies, plans and actions for low greenhouse gas emissions development reflecting their special circumstances. See also Articles 9.4, 9.9, 11.1, 13.3 of the Paris Agreement; Dubois (note 32 above; 158).

⁸⁸⁰ Article 4.5 of the Paris Agreement states: ‘Support shall be provided to developing country Parties for the implementation of this Article, in accordance with Articles 9, 10 and 11, recognizing that enhanced support for developing country Parties will allow for higher ambition in their actions.’; Article 9.1 of the Paris Agreement: ‘Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.’

Thirdly, from a legal nature perspective, some of the obligations of the Agreement are of a substantial nature, whereas others are of a procedural nature.⁸⁸¹ The substantial obligations relate to quantifiable objects (for instance the volume of emissions mitigation targets), they are not legally binding.⁸⁸² This means a country does not have any obligation regarding the amount of emissions it intends to reduce, accounting as its national contribution.⁸⁸³ Obligations of a procedural nature set the rules for certain process to take place.⁸⁸⁴ They relate to issues such as the preparation, communication and maintenance of successive NDCs. Obligations of a procedural nature are the ones that are legally binding in the Paris Agreement.⁸⁸⁵ Which means that countries are under obligation to observe the standards of conduct as well as the procedures instituted by the Agreement. For instance, countries are under obligation to prepare and submit to the UNFCCC secretariat their NDC every 5 years, irrespectively of the content or the adequacy of the pledges therein.⁸⁸⁶ Developing countries mitigation obligations are drawn from the above types of provisions.⁸⁸⁷

However, the current study will analyse the mitigation obligation of developing countries from a substantial and procedural angle, because it contains the first two sorts of obligations. Articles 3 and 4 of the Agreement contain the key provisions regarding developing countries' emissions mitigation obligations. Nevertheless, the two articles are not to be approached in an isolated manner. One must envisage them in conjunction with other related dispositions dispersed throughout the 27 other articles of the Agreement. The following comprises obligations under the Paris Agreement, and can be regarded as an outline of the main features of the new emission mitigation regime for the developing countries:

- The obligation to prepare, communicate, and most importantly to maintain developing country parties' NDCs that represent a progression over time, and

⁸⁸¹ See for instance paragraph 4 of Article 4 has a substantial nature, whereas paragraph 2 has a procedural nature.

⁸⁸² See for instance Article 4.4 of the Paris Agreement.

⁸⁸³ *Ibid.*

⁸⁸⁴ See Article 13 of the Paris Agreement.

⁸⁸⁵ *Ibid.*

⁸⁸⁶ See Article 4.9 of the Paris Agreement.

⁸⁸⁷ Dubois (note 32 above; 158).

reflect countries' highest possible ambition, as per Article 3.1 and 3.2, Article 4.2.

- The obligation to pursue domestic mitigation measures with the aim of achieving the objectives contained in the NDCs, as per Article 4.2 and Article 4.3.
- The obligation to undertake environmental integrity, economy wide emission reduction or limitation targets, as per Article 4.13.
- The obligation to cap GHG emissions in a long term run, as per Article 4.1.
- The obligation towards the Agreement's transparency mechanism as per Article 4.8.

5.4.8.2. The obligation to prepare, communicate and maintain successive ambitious National Determined Contributions

Article 3 of the Paris Agreement provides as follows:

"As NDC to the global response to climate change, all parties are to undertake and communicate ambitious efforts as defined in Articles 4, 7, 9, 10, 11 and 13 with the view of achieving the purpose of this Agreement as set out in Article 2. The efforts of all parties will represent a progression over time, while recognising the need to support developing country parties for the effective implementation of this Agreement."⁸⁸⁸

Article 3 of the Paris Agreement urges all the parties to undertake and communicate ambitious efforts regarding the fight against climate change, with the view of achieving the purpose of the Agreement as set out in its Article 2, as discussed above. It also requires that the efforts of countries may represent a progression over time, and reflect each time a country's highest possible ambition. The preparation and submission of the INDCs by a country are legally binding obligations. This is because of the use of the verbal form "shall" in Article 4.2 which also enjoins to each party to prepare, communicate and maintain successive NDC that it intends to achieve. Article 4.2 of the Paris Agreement provides as follows:

⁸⁸⁸ See Article 3 of the Paris Agreement at note 40 above.

“Each party shall prepare, communicate and maintain successive NDC that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.”⁸⁸⁹

The NDC or INDC are “bottom-up” based climate change actions that countries intend to undertake at the period post 2020.⁸⁹⁰ National Determined Contributions (NDCs) are equivalent to INDC. Countries are currently submitting to the UNFCCC secretariat their INDC. Once a government of a country party has ratified the Agreement, its INDCs turn to become an NDC.⁸⁹¹ Which means that the intention the considered government expressed under its INDC has been now confirmed as a national contribution. The INDC practice was adopted in the climate change regime by decision 1/CP.19 at the COP 19 in Warsaw, in preparation of the COP21.⁸⁹² The literature sometimes refers to INDC as national pledges. The approach of the INDC is praised by scholars such as Bodle⁸⁹³ who thinks that it is thanks to the INDC system that the adoption of the Paris Agreement was made possible. Because countries would not feel legally bound to meet the pledges they make under NDC. Although many others are of an opposing view, especially regarding the disputable potential of the INDC to fill the current emission gap, and solve the climate problem.⁸⁹⁴

Choosing the NDC approach has also earned to the Paris Agreement itself some reproaches: Firstly, the submission of an NDC every five years is a legally binding obligation under the Agreement, whereas the content of the NDC are legally non-binding. Meaning countries are under obligation to prepare and submit NDC, but what countries pledges in is not covered by the law. Besides this aspect of the problem, the Agreement also fails to indicate whether the subsequent NDCs will cover which period of time; meaning that countries are urged to prepare and submit their NDCs every five

⁸⁸⁹ Article 4.2 of the Paris Agreement.

⁸⁹⁰ See note 3.2.3 above for details about the bottom up approach; See also Section 3.1.9.2 above for more details about the INDC.

⁸⁹¹ F. Röser *et al* ‘After Paris: What is next for Intended Nationally Determined Contributions?’ (2015) *New Climate Institute* briefing papers at 2. Available at: <https://mitigationpartnership.net/indcs-after-paris>, (Accessed: 12 August 2016).

⁸⁹² The INDC from the beginning were not an obligation imposed to countries. See Decision 1/CP.19 2014 of the UNFCCC, available at: <http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf>. (Accessed: 11 August 2016); see also section 31.9 above.

⁸⁹³ Bodle (b) (note 692 above; 2).

⁸⁹⁴ See for instance section 2.1 above.

years, while they are not told about the period of time a single NDC will cover; Secondly, the Agreement does not institute any assessment mechanism to refer to in judging the adequacy of NDCs' ambition; Thirdly, to realise its highly constraining and ambitious objective, the Paris scheme entirely relies on country parties' national pledges, whilst the adequacy of countries' national pledge to meet the Paris' objective is being disputed.⁸⁹⁵ The Agreement does so based on the assumption that complementary mechanisms such as persuasive impact of the publicity of the INDC, the consultation mechanism, as well as the global stocktake operation will put sufficient public pressures on states to push them to comply with their obligations through effective contributions to the implementation of their respective NDCs.⁸⁹⁶ Lastly, with many aspects the Agreement also lacks clarity on the mechanisms of implementation of countries' obligations.⁸⁹⁷

Ambitious efforts that are referred to in Article 3 are for instance the radical greening of developing country parties' economies over time, which have to result in a total phase out of carbon dioxide net emissions in the course of the current century.⁸⁹⁸ But still the question remains regarding what level of ambition in a country's national pledge can be judged as acceptable at the international level? Since the Agreement provided for no standard which is supposed to guide the assessments. Not only that, but the Agreement remains silent regarding the substantial content of the NDCs, besides the absence of emission mitigation targets. As discussed above, negotiators in Paris were convinced that there were no opportunities to prescribe specific emission reductions targets, because this could compromise countries' participation, especially the major emitters. The underlying idea is that countries will eventually choose their own emission reductions targets under the NDCs.⁸⁹⁹

⁸⁹⁵ Bodle (b) (note 692 above; 2).

⁸⁹⁶ *Ibid.*

⁸⁹⁷ Many technical works regarding the implementation of the Agreement were left to be fine-tuned during the COP 22 in Marrakesh, Egypt, November 2016.

⁸⁹⁸ The UNEP's Working Definition of a Green Economy is: 'A system of economic activities related to the production, distribution and consumption of goods and services that result in improved human wellbeing over the long term, while not exposing future generations to significant environmental risks and ecological scarcities. More details on green economy available at: <https://www.cbd.int/doc/meetings/im/wscbteeb-mena-01/other/wscbteeb-mena-01-unep-green-economy-arab-en.pdf>. (Accessed: 17 September 2016).

⁸⁹⁹ Bodle (note 692 above; 2).

Nonetheless, the lack of legally binding character from a treaty does not open ways for non-compliant behaviours from its parties.⁹⁰⁰ In fact, the thought behind the lack of a legally binding character attached to the issue of emissions reduction in the Paris Agreement was to give to its country parties the latitude to determine themselves as to what extent they are willing to go in reducing their national emissions, as a contribution to the global effort to curb climate change; so that once countries have themselves adopted their own national emission limitations or mitigation targets, they may better comply with, because the INDCs are done in the light of countries respective capabilities. Besides, if one considers the application to the Paris Agreement of the international law principle of “*pacta sunt servanda*”⁹⁰¹ it follows that parties must indeed honour in good faith each one of the obligations enshrined in the Agreement they are part of, regardless of the binding character of its wordings.

NDCs are of a pivotal importance for the Paris’ climate change regime, because it is from the compilation of country parties’ INDCs that it becomes possible to pre-determine whether or not the world is on the track to achieve the long term goals of the Paris Agreement. This actually is what took place during the period between COP20 up to the end of COP21, when 187 countries representing approximately 95 percent of global GHG emissions submitted their INDCs.⁹⁰² In this case unfortunately, the NDCs’ compilation proven to be insufficient to meet the needed level of ambitions to fulfil the goal of the Paris Agreement. The aggregate level of national pledges revolved around 55Gt CO₂eq in 2030, provided all the INDCs are fully implemented, whilst global emissions needed to go down to around 42 GtCO₂eq,⁹⁰³ based on a least-cost 2°C scenario.⁹⁰⁴ The emission gap therefore was about 13 Gt. This gap meant that the global temperature will increase by about 2.7°C by the end of the current century, and will continue rising thereafter.⁹⁰⁵ Although the INDC approach does not solve the climate

⁹⁰⁰ Bodansky (g) (note 741 above; 4).

⁹⁰¹ See note 762 above for the meaning of “*pacta sunt servanda*”.

⁹⁰² Bodle (b) (note 692 above; 2).

⁹⁰³ *Ibid*

⁹⁰⁴ ‘A least cost scenario is a scenario based on a type of pricing where a business sets a comparatively low price in order to enhance the demand for its product among consumers, as well as its competitive position in the market.’ Information and more available at:

<http://www.businessdictionary.com/definition/low-cost.html>. (Accessed: 12 October 2016).

⁹⁰⁵ The possibility for the 2.7°C to be met is only a 50% chance. See note 700 above. See also Röser (note 891 above; 2).

problem so far,⁹⁰⁶ scholars such as Röser⁹⁰⁷ praised it, arguing that a climate scenario with the INDC strategy was better than a climate scenario without.

Besides the NDC's main obligation as discussed above, there are some other underlying obligations attached to the NDCs' strategy, namely the obligation to formulate and submit the NDC to the UNFCCC secretariat every five years,⁹⁰⁸ and the obligation for each country's NDCs to represent an improvement in comparison to its predecessor, and reflect the highest possible contribution that the country was able to deliver.⁹⁰⁹

5.4.8.2.1. The NDC five years' submissions cyclic process

Article 4.9 of the Paris Agreement institutes a five years cycle process for the submission of countries' NDCs.⁹¹⁰ Through these five years cycles, parties are to "ratchet up" their efforts to keep the global temperature rise "well below 2°C, and further pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels."⁹¹¹ The Agreement seeks to ensure that each release of NDCs by countries are accurately informed by the outcomes of the global stocktake referred to in Article 14, in order to further the climate change actions that will take place during the next NDC turns. The five years' process gives also enough time to countries to improve their ambitions if required.

After the submission of their initial INDCs, developing countries are required to update and communicate their next NDCs at least every 5 years, starting by 2020, in order to allow the COP serving as the Meeting of the Parties to the Paris Agreement to undertake its first global stocktake based on country parties' NDC in 2023.⁹¹² The stocktaking will

⁹⁰⁶ *Ibid* Röser.

⁹⁰⁷ *Ibid.*

⁹⁰⁸ Article 4.9 of the Paris Agreement.

⁹⁰⁹ Article 4.3 of the Paris Agreement states: 'Each Party's successive Nationally Determined Contribution will represent a progression beyond the Party's then current Nationally Determined Contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.'

⁹¹⁰ Article 4.9 of the Paris Agreement states: 'Each Party shall communicate a Nationally Determined Contribution every five years in accordance with decision 1/CP.21 and any relevant decisions of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement and be informed by the outcomes of the global stocktake referred to in Article 14.'

⁹¹¹ IISD (g) (note 662 above; 43).

⁹¹² Article 14.2 of the Paris Agreement states: 'The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall undertake its first global stocktake in 2023 and every five years thereafter unless otherwise decided by the Conference of the Parties ... ; Article 14. 3. Provides: 'The

be occurring midway through the NDC cycle, every five years after 2023,⁹¹³ which implicitly suggests that the NDC will have to cover at minimum a period of 5 years from one stocktaking to the next, in order to be reviewed if indicated.⁹¹⁴ Because, as stated in Article 14.3 above, the outcome of a global stocktake will inform parties whether to update or enhance the next round of NDCs.⁹¹⁵

Article 13.7 puts developing countries parties under legally binding obligation to regularly release the information regarding their national inventory report of anthropogenic emissions by sources and removals by sinks of GHG.⁹¹⁶ There is a further legally binding obligation on developing countries to provide any information necessary to track the progress made in implementing and achieving a country's previous (or current) NDC.⁹¹⁷ Moreover, as per the prescription of Article 4.13, developing countries parties are expected to improve their national environmental accuracy, integrity, completeness, transparency, comparability and consistency, and ensure to have avoided double counting.⁹¹⁸ The concerned improvements will transpire through a country's NDC.

As it was the case for similar treaties such as the CBD,⁹¹⁹ the implementation of the above provisions will require the utilisation of considerable information and resources, at national and local levels, and will therefore necessitate the development of country wide climate change plans and programmes that foster low GHG emissions

outcome of the global stocktake shall inform Parties on updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international cooperation for climate action.'

⁹¹³ IISD (g) (note 662 above; 43).

⁹¹⁴ Article 14.2 of the Paris Agreement.

⁹¹⁵ *Ibid* Article 14.3.

⁹¹⁶ Article 13.7 of the Paris Agreement states: 'Each Party shall regularly provide the following information:

(a) A national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement; (b) Information necessary to track progress made in implementing and achieving its Nationally Determined Contribution under Article 4.' See section 2.1 for more details on GHG sinks and emission.

⁹¹⁷ Article 13.7 (b) of the Paris Agreement.

⁹¹⁸ *Ibid* the Paris Agreement; Article 4.13

⁹¹⁹ The Convention for Biological Diversity, Available at <http://www.cbd.int/gbo1/chap-02.shtml>

(Accessed:

10 September 2016).

developments.⁹²⁰ The stocktaking report on countries' NDCs will oblige countries to decide whether to develop new plans, or review plans that are already being implemented. In either option, a considerable work of technical capacity building, legal and institutional preparedness and implementation, as well as financial capacity building will need to take place in developing country parties.⁹²¹ However, one will have to bear in mind the complexity of the task, because of the varying national circumstances of developing countries, as they do not all face similar climate change challenges. It follows that some of them may find it profoundly challenging and therefore not possible to undertake the necessary changes in the absence of any financial and technical assistance, whereas others may have little to do with that respect.⁹²²

5.4.8.2.2. Obligation for subsequent NDCs to reflect the highest possible level of ambitions compared to its predecessors

Article 4.3 put developing countries under obligation to produce successive NDCs that reflect progressive higher ambitions on emissions reduction and climate actions over time. Article 4.3 states:

“Each party’s successive nationally determined contribution will represent a progression beyond the party’s then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.”⁹²³

It also remains silent regarding the content, standards, or targets of the emissions to be reduced.⁹²⁴ This in other words means that countries are under obligation to produce the highest possible level of ambition of NDCs based on their own national targets and standards, because no statutory standards have been provided under the Agreement, in which case countries are themselves, judge and party. Not only that, but the obligation under Article 4.2 has a legally non-binding character, because of the use of the word “will” in the provision, in order to produce the obligation.⁹²⁵

⁹²⁰ X.V. Tilburg *et al* ‘Paving the way for low-carbon development strategies.’ (2011) *ECN at i-vi.*

⁹²¹ *Ibid.*

⁹²² Brunnée (note 153 above; 595).

⁹²³ Article 4.3 of the Paris Agreement.

⁹²⁴ Bodle (b) (note 692 above; 2).

⁹²⁵ See section 5.3.6 above.

Article 4.3 above read in conjunction with Article 4.4 gives more clarity about the requirement of the ‘highest possible ambition’ that is asked from parties.⁹²⁶ Article 4.4 exhorts developing country parties to continue enhancing their mitigation efforts, and further encourages them to move over time towards economy wide emission reduction or limitation targets, in the light of their different national circumstances.⁹²⁷ The obligation under Article 4.3 might arguably constitute a bridge between the climate change domestic measures and the NDCs countries are to submit. This is because, in order for each NDC to reflect the highest possible level of ambition over time, there must be progressive domestic mitigation efforts that countries undertake, as also required by Article 3 of the Paris Agreement. Any progress then that is realised by a country pursuing Articles 3 and 4.3 will be reflected in its subsequent submitted NDCs.

However, what else seems captivating in Article 4.3 above is that the obligation it creates might constitute the shadow of a future emission reduction legally binding scheme that country parties will have to negotiate and adopt under the Agreement. This arguably seems to be true for developing countries in particular, given their fast growing participation rate in the global emissions,⁹²⁸ whilst there is a claim that the zero carbon emission point has to be reached rapidly in order to meet the Agreement’s goal.⁹²⁹ Scientists are even expecting the bulk of greenhouse emissions to be mainly coming from developing countries in the next decades.⁹³⁰

The above fear is tempered by the principle that countries adopt the highest possible ambition in climate change related affairs. It sets out the standard of care that is now to be exercised by every country party to the Paris Agreement.⁹³¹ It implies a “due diligence standard”⁹³² by virtue of which governments are to act in proportion to the risk at stake

⁹²⁶ Dubois (note 32 above; 158).

⁹²⁷ See section 5.3.8.4 for details on Article 4.4 of the Paris Agreement.

⁹²⁸ Refer to note 631 above.

⁹²⁹ See section 5.3.2 above for the objective of the Paris Agreement.

⁹³⁰ Refer to note 36, 333 and 339 above.

⁹³¹ Voigt (note 803 above; 28).

⁹³² ‘The concept of due diligence in international law is a means to identify the duty of care to be exercised in international affairs. In order to demonstrate to have acted diligently, a State is expected to prevent foreseeable, significant damage, or at least minimize the risk of such harm. The concept has been defined as requiring ‘Such a measure of prudence, activity, or assiduity, as is properly to be expected from, and ordinarily exercised by, a reasonable and prudent [person, enterprise, State] under the particular circumstances; not measured by any absolute standard, but depending on the relative facts of the special case.’ The concept is relevant to different areas of international law among which the environmental law.

and to the means at their disposal.⁹³³ Developing countries therefore are committed to taking all appropriate and adequate climate change measures in line with their best capabilities and responsibilities in order to effectively contribute to the progressive achievement of the long term temperature goal of the Paris Agreement.⁹³⁴

5.4.8.3. Obligation to pursue domestic mitigation measures by developing countries

Unlike the UNFCCC,⁹³⁵ the Paris Agreement does not provide for any specific mitigation obligation to be applied on developing countries as a separated group.⁹³⁶ The Paris Regime is rather universal,⁹³⁷ and as a central rule, it equally applies to all countries, which are equally urged to contribute to the achievement of its objective. However, country parties bring their contributions based on the CBDR principle,⁹³⁸ as per the preamble, and Article 2.2 of the Paris Agreement which proclaims that parties to the Agreement are guided by the principles of Equity and Common but differentiated responsibilities and respective capabilities, in the light of different national circumstances.⁹³⁹ However, based on Article 4.2 of the Paris Agreement, developing country parties are put under legally binding obligation to pursue domestic mitigation measures that are consistent to each countries' NDCs.⁹⁴⁰ Article 4.2 states:

“Each party shall prepare, communicate and maintain successive NDC that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.”

Domestic mitigation measures referred to in Article 4.2 above are measures addressing the GHG emissions drivers at national and local levels, as analysed under section 2.1

In some areas of international law, it has even become the prevailing legal standard for assessing the adequacy of government action.’ Information available at: <http://www.qil-qdi.org/paris-agreement-standard-conduct-parties/>. (Accessed: 12 September 2016).

⁹³³ Voigt (note 803 above; 28).

⁹³⁴ *Ibid.*

⁹³⁵ Article 4 of the UNFCCC defines developed and developing countries commitments separately. See section 3.1.2 above for more details on the UNFCCC.

⁹³⁶ Bodle (note 692 above; 22).

⁹³⁷ Röser (note 891 above; 2).

⁹³⁸ *Ibid.*

⁹³⁹ Preamble and Article 2.2 of the Paris Agreement.

⁹⁴⁰ Article 4.2 of the Paris Agreement.

above.⁹⁴¹ Emissions drivers are the factors that originate either directly or either indirectly the GHG emissions. They may be immediate, or underlying, or even be among the policy measures.⁹⁴² As said in the previous section, the obligation to pursue domestic mitigation measures by developing countries is arguably interlinked with the obligation that countries' successive NDC must represent a progression over time, ever reflecting the country's highest possible ambition.⁹⁴³ Because it is only through improved and progressive domestic measures that a country might be able to produce each time higher ambitious NDCs, in satisfaction of its statutory obligation.

Although developing countries are thus obliged under Article 4.2, Article 4.5 recognises that they will be able to satisfy the content of the obligation only if they receive enhanced assistance in order to enable them do so. Article 4.2 provides as follows:

“Support shall be provided to developing country parties for the implementation of this Article, in accordance with Articles 9, 10 and 11, recognising that enhanced support for developing country parties will allow for higher ambitions in their actions.”⁹⁴⁴

However, some observers from developing countries have started complaining about their countries' participation in the Paris Agreement.⁹⁴⁵ The issue is in the uncertainty of the Paris' mechanism of climate change financial assistance towards developing countries. The above observers are asking developing countries governments not to ratify the Agreement quickly, because, on their view, developing countries were flawed under the Paris Agreement.⁹⁴⁶ Their claim is that developing countries should first seek to secure solid guarantees for the financial support towards the implementation of the

⁹⁴¹ See section 2.1 for more details on drivers of GHG emission.

⁹⁴² *Ibid.*

⁹⁴³ Article 4.1, Article 4.2 and Article 4.3 of the Paris Agreement.

⁹⁴⁴ *Ibid* Article 4.5.

⁹⁴⁵ ‘There is an increasing feeling that developing countries have been flowed under the Paris Agreement, as shown in a key recommendation in a five-page briefing from Sir Meena Raman, on behalf of an influential Malaysia-based think tank (the third World Network) that was sent to members of the Arab Group of nations in March 2016. It will be more advantageous to developing countries to wait for 2016 and not rush into ratifying the Paris Agreement. Otherwise, we lose the political leverage that is critical to secure the necessary conditions that will enable developing countries to meet their obligations.’ Information available at: <http://www.climatechangenews.com/2016/03/29/developing-nations-urged-to-boycott-paris-agreement-signing/>. (Accessed: 18 September 2016).

⁹⁴⁶ *Ibid.*

Agreement, as per Article 4.5 above, in the absence of which they will be the big losers of the Paris deal.⁹⁴⁷

It might be that such stance from developing countries analysts is being fuelled by reasoning regarding the removal of developed countries' climate change historical responsibility from the Paris Agreement. The thing is that in the absence of the climate change historical responsibility, there is no reason for the application of the polluter pays principle in climate change related matters as far as developed countries early emissions are concerned.⁹⁴⁸ The polluter pays principle is the environmental law principle upon which builds the rational that finances for fighting climate change had to come from those who have caused it.⁹⁴⁹ This in turn justified the mobilisation for a support for developing countries from the developed ones. The support thus provided to developing countries was kind of a compensation for the adverse effects of a climate change provoked by the developed countries.

Section 2.1 above gives a summary of the GHG emission mitigation divers that are concerned by any domestic mitigation measures, especially the ones to be undertaken by developing country parties.

Although being of a universal application, the provision under Articles 6.4 - 6.9 of the Paris Agreement seems relevant to be mentioned here, as it may be referred to by developing countries pursuant to their emission mitigation plans. Article 6.4 – 6.9 establishes a new mechanism which aims to facilitate the realisation of country parties' emission mitigation obligations as it was the case for the CDM under the Kyoto Protocol,⁹⁵⁰ but this time with a broader scope, compare to the CDM under the Kyoto Protocol. This is because all the parties that will be using the Mechanism of Articles 6.4

⁹⁴⁷ *Ibid.*

⁹⁴⁸ Principle 16 of the 1992 Rio Declaration on Environment And Development proclaims: 'National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.' See note 20 above.

⁹⁴⁹ For more details about the Polluter Pays Principle in Environmental Law, see Kidd (note 306 above; 7).

⁹⁵⁰ See section 4.3 above for more details on the Clean Development Mechanism under the Kyoto Protocol.

– 6.9 above will be expected to firstly have some form of mitigation commitments that they are being compliant with.⁹⁵¹ This was not the case for the Kyoto Protocol under which developed countries alone being the initiators and funders of CDM had mitigation obligations, whereas developing countries whose role were limited at hosting projects, were not subjected to any commitment supposed to be met first. The Paris mechanism aims at delivering an overall mitigation outcome in contribution to lowering the global emissions of GHG,⁹⁵² and further seeks to secure net mitigation impacts being not focused on carbon offsetting alone, as it was the case for the CDM under the Kyoto Protocol.

5.4.8.4. The obligation to undertake economy wide emission reduction or limitation targets over time

Article 4.4 of the Paris Agreement exhorts developing countries parties as follows:

“Developing country parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy wide emission reduction or limitation targets in the light of different national circumstances.”⁹⁵³

Despite the temporal imprecision regarding this obligation that has to be realised in an imprecise future, developing countries are indeed urged to undertake economy wide emission reduction or limitation targets as soon as they are able to. Although this will be effective only over time, this provision embodies one of the categorical shifts that are brought by the Paris Agreement comparatively to the UNFCCC, because it prescribes future substantial mitigation efforts to be undertaken by developing countries.⁹⁵⁴

The obligation under Article 4.4 is to be envisaged in conjunction with the prescriptions of Article 4.1 above,⁹⁵⁵ along with the provision of Article 4.5, because they all abound

⁹⁵¹ Lawyers Responding to Climate Change (LRI) ‘Commitments by developing country parties under the Paris Agreement’ (February 2016) Briefing paper at 3. Available at: <http://legalresponseinitiative.org/wp-content/uploads/2016/05/Commitments-by-Developing-Country-Parties-under-the-PA.pdf>. (Accessed: 10 October 2016).

⁹⁵² Article 6.4 (d)) of the Paris Agreement.

⁹⁵³ *Ibid* Article 4.4.

⁹⁵⁴ Dubois (note 32 above; 158).

⁹⁵⁵ Article 4.1 of the Paris Agreement states: “In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible,

in the sense of encouraging developing countries to continue enhancing their mitigation efforts, and move over time towards economy wide emission reduction or limitation targets in the light of countries' national circumstances.⁹⁵⁶ The same observation concerns Article 4.19 which also commits to developing countries the formulation and communication of long term greenhouse gas emission development strategies on the basis of the CBDR-RC principle, in the light of their different national circumstances.⁹⁵⁷

The emission mitigation that developing countries are to undertake represent considerable efforts to be deployed towards a low emission carbon development.⁹⁵⁸ However, as observed by Kidd,⁹⁵⁹ it appears today more recommendable that developing countries may undertake national assessments to find out whether the official pronouncements on the contribution of countries to the global effort to curb climate change are being backed up by appropriate mitigation actions for instance, as it is the focus of the present study. This exercise once done will be informative for the implementation of developing countries obligations under the Paris Agreement, because of the real dangers that exists on some developing countries not to be able to comply with their obligations under the Paris Agreement due to diverse factors.

As also observed by Paul Collier,⁹⁶⁰ to address climate change, carbon emissions need to be curtailed in developing countries as well, whereas the poorest countries have a strong interest in economic growth in order to address the mass poverty challenge which is their current experience.⁹⁶¹ But this can be done only through massive GHG emissions due to the use of cheap energy affordable to the poorest countries.⁹⁶² Therefore, the objective of quickly reaching a zero emission scenario and the need for the economic development of poor countries seems to potentially be in conflict. Global restrictions on

recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with the best available science, so as to achieve a balance between anthropogenic emissions by sources and removals by sinks of greenhouse gases in the second half of this century, on the basis of equity, and in the context of sustainable development and efforts to eradicate poverty.”

⁹⁵⁶ Article 4.4 and Article 4.5 of the Paris Agreement.

⁹⁵⁷ *Ibid* Article 4.19.

⁹⁵⁸ P. Collier ‘Curbing carbon without curbing development’ in S. Barrett *et al Towards a Workable and Effective Climate Regime*’ (2015) 423 at 423-424.

⁹⁵⁹ Kidd (note 306 above; 308).

⁹⁶⁰ Collier (note 958 above; 423).

⁹⁶¹ *Ibid*.

⁹⁶² *Ibid*.

carbon energy could impede the development of poor countries by denying them cheap energy, and also directly threaten the income of those poor countries which export carbon fuels.⁹⁶³

The obligation to move towards economy wide emission reductions and limitation targets by developing countries will therefore be among the main challenges that they will face under the Paris Regime. This is because the economies of developing countries are weak so far and are still growing in the sense of their developmental objectives. Therefore, any adopted strategy for the transition towards a wide emission reductions regime may amount to a slowing down of national economies, in the event of improper considerations, planning or implementation, as also suggested by an abundant literature.⁹⁶⁴ Therefore, to help alleviate these challenges, the Agreement begs for a support to be provided to developing country parties for the implementation of Article 4, recognising that an enhanced support will allow them to deploy higher ambitions in their actions.⁹⁶⁵

Considering the required urgency of action to curb climate change, what remains unclear is whether the emission reduction of Article 4 will be successfully achieved on the basis of the current bottom up approach of the Agreement; or if probably, future negotiations will be engaged under the UNFCCC to bring back (to a certain extent) a top down approach in order to equitably and bindingly share the efforts of GHG mitigation between countries for more consistency with the objective of the Convention.⁹⁶⁶ This is because of the growing fear that the compilation of countries' NDCs continue failing to meet the scientific requirement for the objective of 2 degrees Celsius under the Agreement. In addition, the long term goal of the Paris Agreement constitutes a strong signal towards various stakeholders' gradual turn to the direction of a total decarbonisation of the economy in a closer future.

⁹⁶³ *Ibid.*

⁹⁶⁴ *Ibid.*

⁹⁶⁵ Article 4 of the Paris Agreement.

⁹⁶⁶ E. Haites *et al* 'Possible elements of a 2015 legal agreement on climate change' (2013) *IDDRI* 1 at 8-11.

Available at:

<http://thereddesk.org/sites/default/files/resources/pdf/Possible%20Elements%20of%20a%202015%20Legal%20Agreement%20on%20Climate%20Change.pdf>. (Accessed: 21 October 2016).

Global emissions are continually growing, thereby deepening the global emission gap. Meanwhile, the Paris Agreement is relying on trusting that countries will act with fairness and make their NDCs ambitions higher in order to meet the indicated scientific requirement for a temperature increase limited at 2 degrees Celsius compared to the pre-industrial era, at the end of the current century. Countries will act accordingly on the basis of their respective capabilities, yet it is broadly acknowledged that any reference to countries' respective capabilities is vague, broad and imprecise, as recalled in an Advisory Opinion of the International Tribunal for the Law of the Sea, released in 2011.⁹⁶⁷ The same opinion is being shared by some scholars⁹⁶⁸ that are also expressing their concerns regarding the uncertainties around the possibilities to reach the objective of the Paris Agreement.⁹⁶⁹

5.4.8.5. The obligation to “cap” GHG emissions in a long term run

Article 4.1 urges parties to aim at reaching global peaking of greenhouse gas emissions as soon as possible, in order to achieve the long term temperature goal of the Agreement.⁹⁶⁹ The obligation to cap GHG emissions in a long term run is non-binding regarding the wording used by the provision for its set up. The Agreement further recognises that the peaking will take longer for developing country parties than for developed countries, and that the emissions trajectory will be determined ‘on the basis of equity’.⁹⁷⁰ Following the wordings of Article 4.1, the long term objective to reduce global emissions is planned to take place in three phases: firstly, the reduction of the current increase, secondly the peaking of the emissions as soon as possible until the reaching of a balance between anthropogenic emissions by sources and removals by

⁹⁶⁷ International Tribunal for the Law of the Sea, 1 February 2011, Responsibilities and Obligations of States with Respect to Activities in the Area, Advisory Opinion. Available at: https://www.itlos.org/fileadmin/_itlos/documents/cases/case_no_17/adv_op_010211.pdf (Accessed: 7 August 2016), at paragraphs 151–163. According to the Tribunal, ‘Furthermore, the reference to “capabilities” is only a broad and imprecise reference to the differences in developed and developing States. What counts in a specific situation is the level of scientific knowledge and technical capability available to a given State in the relevant scientific and technical fields.’

⁹⁶⁸ Reflection available at: <http://thediplomat.com/2016/09/chinese-investment-stokes-global-coal-growth/>. (Accessed: 10 October 2016); Analysis entitled: ‘hundreds of coal plants are still being planned world wide- enough to cook the planet. Analysis available at: <http://www.vox.com/2016/4/5/11361390/coal-plant-pipeline-china-india>. (Accessed: 10 October 2016).

⁹⁶⁹ Article 4.1 of the Paris Agreement; See also note 314 above.

⁹⁷⁰ *Ibid.* Paris Agreement; See also section 5.3.3 above for more details on Equity.

sinks, in the second half of this century, and ultimately the declining of emissions, with the final goal of balancing all anthropogenic emissions with removal by "carbon sinks".⁹⁷¹

Developing countries therefore are exhorted to follow the Paris' global emission mitigation pathway, as the Agreement ascertains that the peaking of emissions will take longer for them. However, the Agreement does not specify the years on when global emissions are supposed to reach the peak, or even to equal a net zero. And furthermore, in Article 4.1 the wording "balance between emissions and removals" is ambiguous and is not necessarily synonymous to a "net zero".⁹⁷² Therefore, the same worries expressed by the scholars in previous sections may as well be considered in the current section, regarding the adequacy of the strategies and the objective of the Agreement.

5.4.8.6. Obligations towards the transparency mechanism of the Agreement

The Paris Agreement establishes a common transparency and accountability mechanism under Article 13.1 as follows:

"In order to build mutual trust and confidence and to promote effective implementation, an enhanced transparency framework for action and support, with built-in flexibility which takes into account parties' different capacities and builds upon collective experience is hereby established."

Besides, in order to give more effectiveness to the above transparency mechanism, Article 4.8 introduces a new obligation for developing countries, which did not exist under the previous regime, to provide the information necessary for clarity, transparency and understanding while communicating their NDCs. Article 4.8 of the Paris Agreement Provides as follows:

"In communicating their NDC, all parties shall provide the information necessary for clarity, transparency and understanding in accordance with decision 1/CP.21 and any

⁹⁷¹ Article 4.1 of the Paris Agreement.

⁹⁷² Bodle (note 692 above; 22).

relevant decisions of the COP serving as the meeting of the parties to the Paris Agreement.”⁹⁷³

To understand the ambition of countries’ NDCs and further track the progress regarding the implementation of the Agreement, the quality of information provided in NDCs is crucial.⁹⁷⁴ That is the reason why the Paris Agreement put all the countries (including the developing countries) under legally binding obligation with that regard.⁹⁷⁵ The role of the transparency mechanism is relevant at both country level and at global level. At a country level, the very accurate information that serves the transparency mechanism offers to countries themselves a good base for comparison between successive NDCs’ ambitions, as per their obligations under the Agreement. At the global scale, understanding what parties intend to do in their NDCs is important, because it enables multilateral stakeholders to compare the fairness and Equity of each contribution.⁹⁷⁶ Still from a global perspective, transparent information is helpful as a basis for aggregating data and assessing progress towards the collective ambition.⁹⁷⁷

The Paris Agreements’ compliance mechanism is only “facilitative”, and lacks a legally binding character.⁹⁷⁸ Although the Agreement has legal force over ratifying parties, it does not provide for any enforcement mechanisms or legal sanctions to address parties’ non-compliance behaviours.⁹⁷⁹ Therefore, in order to solve this gap, and ensure that countries comply with their statutory obligations, the Agreement has established such a transparency and accountability mechanism that promotes a due diligence of conduct from country parties regarding their NDCs.⁹⁸⁰ The transparency mechanism comprises the transparency of actions (Article 13.5) and the transparency for supports (Article 13.6).

The global climate is an international public good. With the terrestrial atmosphere being an internationally shared good, it follows that there is always a potential for a free-riding

⁹⁷³ Article 4.8 of the Paris Agreement.

⁹⁷⁴ Bodle (note 692 above; 2).

⁹⁷⁵ Article 4.8 of the Paris Agreement.

⁹⁷⁶ Bodle (note 692 above; 2).

⁹⁷⁷ *Ibid.*

⁹⁷⁸ IISD (g) (note 662 above; 43).

⁹⁷⁹ See Voigt (note 803 above; 18); see also section 5.3.6 above.

⁹⁸⁰ Obergassel (note 13 above; 3).

behaviour, cheating, or even disputes over climate change burden sharing issues, because of the international character of the responsibilities towards its protection.⁹⁸¹ Not only that, but the ultimate goal of the Paris Agreement itself tells more about the necessity of an established process that insures the international community that the global effort to curb the climate change as supported by countries' pledges is effective and is based on rational plans and relevant figures, and is able to phase out any GHG within the definite timeframes.⁹⁸²

The transparency mechanism can further serve to publicise the actions of states, allow timely detections of countries' deviation from expected paths, and formulate corrective measures.⁹⁸³ However, the "transparency framework" announced under the Agreement has not yet been fleshed out. Analysts on climate change related matters predict that to be the most relevant field of work in the coming years in order to guarantee an effective implementation of the Paris Agreement.⁹⁸⁴

The transparency mechanism is one of the key features of the new universal climate change regime the Paris Agreement has instituted. Although some analysts emit criticism towards it, arguing that it is "merely" facilitative in nature because it lacks an enforcement mechanism, the truth is that the transparency mechanism occupies the heart of the obligations in the Paris Agreement. On the view of Busby⁹⁸⁵ every other obligation under the Paris Agreement revolve around country parties' compliance with the transparency mechanism, which serves as a safeguard for the NDCs. Justice Brandeis⁹⁸⁶ once admonished: "sunlight is the "best disinfectant". The ambition of the transparency mechanism is to contribute to putting states under obligation to carry out their NDCs, and that by so doing, the Agreement hope to have greater chances to reach its objective, because if a country party does not honour its obligation under the Agreement, thanks to the transparency mechanism, other parties will be aware of it, which will subject them to a peer and public pressure.⁹⁸⁷

⁹⁸¹ J. Busby *et al* 'After Paris: Good Enough Climate Governance' (2016) *Perspective* at 9; Available at: http://www.currenthistory.com/Busby_CurrentHistory.pdf. (Accessed: 28 October 2016).

⁹⁸² Refer to section 1.2 above.

⁹⁸³ Busby (note 975 above; 9).

⁹⁸⁴ Obergassel (note 13 above; 4).

⁹⁸⁵ Busby (note 975 above; 9).

⁹⁸⁶ Bodansky (f) (note 574 above; 3).

⁹⁸⁷ *Ibid.*

5.4.8.7. The Reduction of Emissions from Deforestation and Degradation of forests

Article 5.1 of the Paris Agreement establishes an aspirational commitment towards the reduction of emissions that come from the deforestation and the degradation of forests in developing countries. In other words, it refers to the REDD+ initiative as discussed in section 3.1.4 above.⁹⁸⁸ Article 5.1 provides as follow:

“1. Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of GHG as referred to in Article 4, paragraph 1(d), of the Convention, including forests. 2. Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivising, as appropriate, non-carbon benefits associated with such approaches.”

The conservation and management of emission sinks and reservoirs were already part of parties' commitments under the UNFCCC,⁹⁸⁹ but not under the Kyoto Protocol. Using the formula: “parties should take action to conserve and enhance...” the Paris Agreement puts countries' obligation to conserve and manage emission sinks and reservoirs (the REDD+ initiative) under a rather aspirational than mandatory mandate. Even though the existing REDD+ framework within developing countries was established in observance of the differential regime of the UNFCCC, Article 5(2) of the Paris Agreement encourages parties in general terms to also reduce emissions from deforestation and forest degradation in developing country parties, and further allows parties to cooperate in the implementation of their NDCs, including through the

⁹⁸⁸ Refer to Section 3.1.4 above on the Bali Road Map, and to note 375 for more details about the REDD+ initiative.

⁹⁸⁹ See Chapter 4 paragraph 1(d) of the UNFCCC.

voluntarily use of “internationally transferred mitigation outcomes” as per Articles 6(2) and 6.3 of the Paris Agreement.⁹⁹⁰

Although the rules and regulations for this international co-operation will normally be developed over the coming years, the Agreement states that, if engaging in such transfers, parties are required to avoid ‘double counting’ in accordance with guidance adopted by the COP Service as the meeting of the parties to the Paris Agreement.⁹⁹¹

5.5. Conclusion

The Paris Agreement adopted in 2015 institutes a new climate change regime which applies to both developed and developing countries that are parties to the UNFCCC. The Paris new climate change regime has abandoned the binary differential approach of the UNFCCC in favour of a subtler differential approach based on equity, and Common but Differentiated Responsibilities and Respective capabilities principle, in light of different national circumstances. Unlike the Kyoto Protocol which bound only developed countries with emission mitigation obligations, the Paris Agreement has set up a series of GHG emission mitigation obligations for developing countries as well. Developing countries are therefore put under an unforeseen obligation to mitigate their GHG emissions in all equity, and in light of their respective national circumstances in contribution to the global effort to tame the climate change. The next chapter will undertake an analysis of the differences and the similarities of the emission mitigation regimes instituted for developing countries under both international legal instruments.

⁹⁹⁰ LRI ‘Commitments by developing country parties under the Paris Agreement’ (February 2016) briefing paper at 3. Available at: <http://legalresponseinitiative.org/wp-content/uploads/2016/05/Commitments-by-Developing-Country-Parties-under-the-PA.pdf>. (Accessed: 10 October 2016).

⁹⁹¹ See Article 6.2 of the Paris Agreement.

CHAPTER VI: COMPARATIVE ANALYSIS OF THE GREENHOUSE GAS MITIGATION REGIME FOR DEVELOPING COUNTRIES UNDER THE KYOTO PROTOCOL AND THE PARIS AGREEMENT

6.1. Introduction

From previous discussions, it has been noticed that the binary differential approach which was the cornerstone of the UNFCCC/Kyoto Protocol's regime was replaced by a universal regime under the Paris Agreement.⁹⁹² While under the Kyoto Protocol, developing countries enjoyed preferential treatment, which left them free from any binding emission mitigation obligation, the situation has radically changed in the Paris Agreement, under which developing and developed countries are equally urged to undertake mitigation actions in contribution to the global effort to curb climate change.⁹⁹³ Under the Paris Agreement, developing and developed countries will be treated on an equal basis, in the application of the Principle of Equity and Common But Differentiated Responsibilities and Respective Capabilities.⁹⁹⁴ All these are evidence of the important regime shift that has occurred from Kyoto to Paris. However, the discussions in the previous chapters, especially in Chapter four and Chapter five, have revealed that there are some similarities and differences between the regimes set up by both treaties regarding the mitigation of greenhouse emissions by the group of developing countries. Chapter four which examined the emission mitigation regime of developing countries under the Kyoto Protocol has shown that they did not have any emission mitigation obligation,⁹⁹⁵ whereas chapter five brought forward the bulk of emissions mitigation obligations that applied to developing countries under the Paris Agreement. This current chapter sets out to attempt to identify and analyse the differences and similarities between the two regimes under both treaties, before succinctly commenting on the implications of the identified shifts for developing countries.

⁹⁹² See section 5.3.7 above.

⁹⁹³ See section 5.3.8 above.

⁹⁹⁴ See section 5.3.7.1 above.

⁹⁹⁵ See section 4.3 above.

6.2. Comparison of emission mitigation regimes for developing countries under the Kyoto Protocol and the Paris Agreement

6.2.1. General considerations

The first and most glaring difference between the Kyoto Protocol and the Paris Agreement is the universal participation of all parties to the UNFCCC in the global effort to curb the emission of GHG under the Paris Agreement. Under the Paris' universal regime, countries are equally considered, while expected to contribute to the global effort based on the principle of Equity and CBDR-RC. As for the regime of emission mitigation for developing countries, it follows from the information retrieved in Chapters four and five above that, there are very few similarities between Kyoto and Paris, yet multiple differences arise when comparing both regimes. This is because developing countries were not much concerned by the Kyoto Protocol to the UNFCCC, whereas they are fully taken into consideration by the Paris Agreement on climate change.⁹⁹⁶

Therefore, the regimes comparison of developing countries' emission mitigation which follows will not only be undertaken based on few comparable parameters between the two treaties but those parameters that allow such a regime comparison will mainly be furnished by the Paris Agreement. This is because the Paris Agreement has offered concrete and substantial mitigation obligations features for developing countries that could be referred to, whereas the Kyoto Protocol remained silent, hence offering nothing substantial for a regime comparison. In other words, the enumeration and analysis of the differences and similarities between the two regimes will almost be limited to enumerating and analysing the innovations which are brought in by the Paris' universal regime in contrast to the regime of exemption that was in application under the Kyoto Protocol for developing countries.

Although in broad terms, the nuance between the two regimes may seem obvious at first glance because developing countries have come from a situation of no obligation under

⁹⁹⁶ See sections 4.3 and 5.3.7 above.

the Kyoto Protocol, to a situation of concrete specific obligations under the Paris Agreement, the analysis of the regime transition between the two treaties remains relevant. In fact, a closer approach towards the legal situations of developing countries in both regimes exacerbates the necessity to scrutinise the subtleties of the differences and similarities represented by the regime transition under study. This is particularly relevant if one seeks to catch the significance of the new mitigation obligations for developing countries, consequential to the universality of the Paris Agreement. As announced at the introduction of this study,⁹⁹⁷ the research was not just a mere attempt to catch the differences and similarities between the regimes of both treaties, but also an effort to understand for the group of developing countries the implications of the transition from the regime of Kyoto to the new regime of Paris. Table 4 below summarises the similarities and differences between the two regimes under the two treaties, and it is followed by a corresponding analysis.

Although the Kyoto Protocol and the Paris Agreement were both adopted, “in pursuit of the ultimate objective of the UNFCCC”, they have not approached the climate change fight on the same basis.⁹⁹⁸ This is evidenced by their objectives and legal approaches which are dissimilar from each other, thus offering the first major sources of differences between the two treaties. The Kyoto Protocol was adopted in pursuit of the objective of the UNFCCC to stabilise the greenhouse gas concentrations in the atmosphere at levels that would prevent dangerous anthropogenic interference with the climate system,⁹⁹⁹ whereas the Paris Agreement has opted for a special objective of limiting the global temperature increase above the pre-industrial levels to well below two or even 1.5 degrees Celsius.¹⁰⁰⁰ It is acknowledged that the Paris Agreement has taken on more responsibilities towards curbing the GHG emissions by fixing a precisely targeted limit to the global temperature increase, allowing its objective to be more precise, compared to the Kyoto Protocol, whose objective remained as vague as the objective of the UNFCCC itself.

⁹⁹⁷ See sections 1.4 and 1.5 above.

⁹⁹⁸ See Article 2 of the UNFCCC. See also Section 3.1.2.1 and note 300 above for the exact wordings, and more comments on the objective of the UNFCCC.

⁹⁹⁹ See preamble of the Kyoto Protocol and Section 4.3.1 above.

¹⁰⁰⁰ See section 5.4.2 above.

Regarding the legal approach of the two treaties, the Paris Agreement as discussed above, has adopted a bottom-up approach which is represented by the strategy of National Determined Contributions (NDCs), thanks to which countries self-determine their contributions towards the global GHG mitigation objective;¹⁰⁰¹ whereas the Kyoto Protocol is based on a top-down approach,¹⁰⁰² represented by the Quantified Emission Limitation and Reduction Commitments (QELRCs) strategy, under which the required global emission mitigation burden is statutorily shared between the parties.

6.2.2. Particular considerations

As explained in the previous section, the differences between the two regimes will be almost limited to the innovations brought by the Paris Agreement, because of the silence of the Kyoto Protocol regime regarding emission mitigation obligation by developing countries. Table 4 below summarises the similarities and differences between the two regimes of the two treaties.

Table 4: Comparison of the emission mitigation regime for developing countries under the Kyoto Protocol and the Paris Agreement

Parameter of comparison	The Kyoto Protocol	The Paris Agreement
Obligation relating to the NDC strategy (preparation, implementation and report representing higher ambition compared to previous NDCs).	No Reference to NDC is made under the Protocol	NDC constitutes its core strategy and an obligation for developing countries. Articles 3, 4(2) and 4(3).
Obligation to pursue domestic mitigation measures with the aim of achieving the NDCs' objectives.	Does not exist	Constitutes an obligation for Developing countries (Article 4.2).
Obligation to undertake economy-wide emission reduction or limitation targets over time.	Does not exist	Constitutes a non-binding obligation for Developing countries (Article 4.4)

¹⁰⁰¹ See section 3.1.9 and note 465 above for more details about the NDC.

¹⁰⁰² See sections 3.3.2., 4.3.2 and 4.4 above.

Parameter of comparison	The Kyoto Protocol	The Paris Agreement
Obligation to “cap” GHG emissions in the long term.	Does not exist	Constitutes an obligation for Developing countries. (Article 4.1).
Obligation towards a transparency mechanism.	Does not exist	Constitutes an obligation for Developing countries. (Articles 4.8 and 13).
Reduction of Emissions from Deforestation and forest Degradation.	Does not exist	Constitutes an obligation for Developing countries. (Articles 5.1 and 5.2).

Source: Own compilation of information from previous chapters.

6.3. Analysis of the differences and the similarities of the emission mitigation regimes of the Kyoto Protocol and the Paris Agreement for developing countries

6.3.1. Differences

The first difference between the two regimes relates to the obligation that developing countries have under the Paris Agreement which is to undertake mitigation activities on an equal basis with their counterparts in the developed countries. This obligation is opposed to the situation of developing countries under the Kyoto Protocol, whereby they had no mitigation obligation. However, it seems to be a consequence of the universal character of the Paris’ regime which equally applies to all, on the basis of the CBDR-RC Principle. This is materialised by the obligation developing countries have to prepare, implement and report countries’ NDCs, which is urged to each time represent higher ambitions, as also required from the developed countries.¹⁰⁰³

At this stage, one preoccupation bounces in our spirits, that of which country is “developed” and which one is “developing”, regarding the obligation countries have henceforth to contribute to the objective of the Paris Agreement with respect to their respective capabilities. The above Section 2.3 of the present study discussed the notions

¹⁰⁰³ See Section 5.3.8.2.2 above.

of “developing countries” and “developed countries” and raised the fact that neither the Kyoto Protocol (and the UNFCCC) nor the Paris Agreement provided for a clear definition for both notions. However, a precision towards the matters seems relevant, owing to its legal significance regarding the implementation of the Paris Agreement, which will be done based not only on the CBDR-RC principle but also on countries’ self-classification as developed or developing. This is because depending on whether a country will classify itself as pertaining to either group, the country will accordingly plan for its contribution to the global mitigation effort, as developing countries have been granted special treatment with respect to the emission mitigation, despite the universal character of the new regime.¹⁰⁰⁴

Although the assumption of the present study that any reference to “developing” or “developed” country by the Paris Agreement is to be envisaged in the sense of countries that are either “Non-Annex I” or “Annex I” and “Annex II” under the UNFCCC, the issue of countries’ classification at this point deserves to be discussed afresh. While a self-classification of some countries as “developing countries” under the Paris Agreement may be easily digestible and hardly disputable by their peers and by the observers, it may not be the case for some other countries, especially the key emitters from developing countries, such as the BASIC countries,¹⁰⁰⁵ from which more important mitigation efforts are expected owing to the importance of their current participation in global emission. The thing is, developing countries do not have the same economical or environmental potentialities and neither do they face similar challenges relating to climate change.

The historical development of the climate change discussions as exposed in chapter three above outlined the progressive and growing concern regarding the necessity of a significant participation of developing countries in the global effort to curb climate change. Now that their participation has been secured, the discussion will arguably move towards the effectiveness of such participation, on the basis of their respective capabilities. This is roughly for two reasons, first, as discussed in Chapter five of this study, chances to secure the required amount of emissions cut for the global temperature

¹⁰⁰⁴ See Section 5.4.7 above for more details.

¹⁰⁰⁵ See note 233 above for details on the BASIC countries.

increase to stay well below two degrees Celsius will be hampered if major emitters from developing countries only take up symbolic mitigation responsibilities; secondly, as discussed in chapter three and five above, the current heterogeneity of the group of developing countries dictates a reconsideration of the trend of putting them together as if they were a unified homogeneous group, with comparable capabilities regarding the mitigation of emissions.

The current emission figures show that developing countries do not similarly emit the GHG, and did not do so in the past.¹⁰⁰⁶ Therefore, they should not be required to equally contribute to the global mitigation effort.¹⁰⁰⁷ The reasoning which applies to this matter is slightly similar to the one that was applied under the Kyoto Protocol, based on principles such as the CBDR and the polluter pays principle and that obliged developed countries to take on more climate change responsibilities owing to their greater historical contribution to the phenomenon.¹⁰⁰⁸ Even from an economical point of view, developing countries are currently diversely equipped, with some paradoxically among the richest countries in the world, even far richer than some developed countries, whereas some countries are very poor, with comparably insignificant GHG emissions.

For instance, countries that are members of the BASIC group have far more contributed to the problem of global emissions and have far more financial capabilities compared to countries that are members of the AOSIS group, or even those that are part of the LDC. The BASIC countries should therefore, be expected to take on more emission mitigation responsibilities under the new universal regime, in application of the CBDR-RC principle. Similarly, the Oil Producing Countries (OPEC), which from the start questioned the science of climate change because of their fear for the backwash of climate change measures on oil trade, should take on more emission mitigation responsibilities and even more financial burdens regarding emission mitigation, in comparison with the other G77 countries that are not OPEC members.

¹⁰⁰⁶ See sections 3.2.7.2, 3.3.3, and 4.5 above.

¹⁰⁰⁷ See section 2.3 above.

¹⁰⁰⁸ See section 2.4.1 above.

While some developing countries are paying the price of climate change, others are contributing to it at levels similar to developed countries. Therefore, the efforts expected from both categories of developing countries would not and should not be the same. The mitigation efforts expected from the current major emitters that were classified, “developing countries” in 1992 and under the Kyoto Protocol will be almost similar to the efforts required from developed countries.¹⁰⁰⁹ That is the reason why if countries that are in this category self-classify themselves as “developing countries” in order to contribute less than they could or should under normal circumstances, there may be contestations from their peers given their greater capabilities to contribute. This may also become a further point of disputes during climate change future negotiations, as the fate of the planet would be at stake.

Even among the developing countries themselves, a call was already launched for a differentiation between them because of the noticed heterogeneous character of the group with respect to emission mitigation.¹⁰¹⁰ The call was made by the coalition for rainforest nations, which became the first group of climate change negotiating countries to advocate for a staged approach that differentiates between developing countries.¹⁰¹¹ However, as an attempt to answer the above concern, the Paris Agreement has adopted the strategy of NDCs in the view of getting all the countries to contribute to the global response to the climate change threat in accordance with their respective capabilities. Nevertheless, unlike the Kyoto’s strategy of QELRCs, which provided to parties clear and definite statutory allocations of emission reduction targets, the strategy of NDCs in the Paris Agreement puts the emphasis not on the volume of GHG emission to be reduced by parties, but rather on the obligation to prepare, implement and report the NDCs.

According to Bodansky, the difference between the Paris Agreement’s NDCs and the Kyoto Protocol’s QELRCs strategies can be seen from four angles: First, the NDCs are nationally determined rather than collectively negotiated as it was the case with the QELRCs’ targets. Second, the substantial element of the NDCs is not legally binding,

¹⁰⁰⁹ See sections 3.2.7.2, 3.3.3, and 4.5 above.

¹⁰¹⁰ See note 349 above.

¹⁰¹¹ See note 349 above for more details on the coalition of rainforest nations.

as the Paris Agreement does not provide for any obligation to achieve them, unlike the QELRCs of Kyoto. Third, NDCs are to be recorded in a public registry to be established by the secretariat of the UNFCCC rather than in an Annex to the treaty, as it was the case for the QELRCs under Kyoto.¹⁰¹² Fourth, NDCs are required from all parties that are part of the Agreement, contrarily to the QELRCs that concerned only the developed country parties.¹⁰¹³

However, still on the subject of the obligation to undertake mitigation activities, one more interesting differentiating feature of both regimes is the lack of legal sanctions attached to the breach of parties' obligations under the Paris Agreement compared to the Kyoto Protocol.¹⁰¹⁴ As discussed in section 5.4.8.2 above, there is a breach of a Party's statutory obligation each time a country fails to produce its NDC. However, the new regime remains silent regarding the possibility that a country may submit its NDC but decide thereafter not to honour its pledges, or otherwise, regularly produces it, but decides not to submit it to the UNFCCC secretariat. Therefore, such absence of legal sanctions attached to this kind of behaviours, which by passing are challenging to the objective of the Paris Agreement, constitute arguably a regression of the Paris Agreement in comparison to the Kyoto Protocol which had its compliance mechanism assorting with sanctions towards parties' contravening behaviours.¹⁰¹⁵

The second characteristic which differentiates both regimes, relates to the obligation developing countries have under the Paris Agreement which is to pursue domestic mitigation measures with the aim of achieving the objectives they set up in their NDCs.

¹⁰¹⁶ This is radically different from the Kyoto Protocol's regime, under which developing countries had rather the option of voluntarily undertaking mitigation measures, in the application of Articles 4.2 (g) and 4.2 (a) of the UNFCCC.¹⁰¹⁷ As it was the case for the previous point, the current differing characteristic also seems to be consequential to the universal character of the Paris' regime.

¹⁰¹² See Article 4.12 of the Paris Agreement in comparison to Article Annex B of the Kyoto Protocol.

¹⁰¹³ Bodansky (note 574 above; 23).

¹⁰¹⁴ See section 5.3.6 above.

¹⁰¹⁵ See Article 18 of the Kyoto Protocol.

¹⁰¹⁶ Article 4.2 of the Paris Agreement.

¹⁰¹⁷ Article 10 of the Kyoto Protocol.

The analysis that follows will lean on the CDM and on the strategy of the Reduction of Emissions from Deforestation and forest Degradation in developing countries (REDD), because they are both emission mitigation strategic measures that applied to developing countries under the UNFCCC/Kyoto regime and that will continue under the Paris Regime, subject to some adjustments as exposed below.¹⁰¹⁸ The use of the CDM by developing countries parties aimed *inter alia* at securing their contribution to the global mitigation efforts while achieving countries' sustainable developmental goals in the cleanest way.¹⁰¹⁹ Through the adoption of the CDM strategy, developing countries became part of the global GHG abatement coalition under the Kyoto's regime, with substantial participation in terms of emission reductions, although they had no binding obligations. Even though the Paris Agreement has made no expressed reference to the, "Clean Development Mechanism" , it has, however, taken it into consideration, as suggests the interpretation of its Articles 6.4 - 6.9, which provide for a new mechanism that will be implemented on behalf of the CDM strategy of the Kyoto Protocol.

The Paris Agreement's new mechanism aims at first, facilitating the realisation of country parties' emission mitigation obligations as it was the case for the CDM under the Kyoto Protocol,¹⁰²⁰ and second, delivering an overall mitigation outcomes in contribution to lowering the global emission of GHG, with net mitigation impacts.¹⁰²¹ Unlike the CDM under the Kyoto Protocol, the Paris' new mechanism is not focused on carbon offsetting alone, its scope is rather broader because all the parties that will be voluntarily using the mechanism will be expected to first have some form of mitigation commitments which they are being compliant with.¹⁰²²

The third characteristic which constitutes a contrast between the two regimes is the obligation that developing countries have under the Paris Agreement of undertaking economy wide emission reduction or limitation targets over time, which also did not

¹⁰¹⁸ See section 4.3 above for details about the CDM and the REDD+ initiative.

¹⁰¹⁹ See section 4.3 above.

¹⁰²⁰ See section 4.3 above for more details on the Clean Development Mechanism under the Kyoto Protocol.

¹⁰²¹ Article 6.4 (d)) of the Paris Agreement.

¹⁰²² Lawyers Responding to Climate Change (LRI) 'Commitments by developing country parties under the Paris Agreement' (February 2016) Briefing paper at 3. Available at: <http://legalresponseinitiative.org/wp-content/uploads/2016/05/Commitments-by-Developing-Country-Parties-under-the-PA.pdf>. (Accessed: 10 October 2016).

exist under the Kyoto Protocol. Although the exclusion of developing countries from the Kyoto's scheme raised serious questions about the overall effectiveness of the treaty, some parties were on the contrary in favour of the exclusion, and argued that it would not be viable to require developing countries to undertake and meet binding emission mitigation targets, because of their weaker economies at that time.¹⁰²³ A quarter of a century later, the questions parties to the UNFCCC should ask themselves are, 'has the economic situation of the group of developing countries improved, worsened or has it remained static over time?', 'Are the probable evolutions evenly observable in every one of the developing countries identified in 1992, or is it that some developing countries have improved their economies and national circumstances while others are in the worst economic situation a quarter of a century later?' However, as discussed in section 5.4.8.4 above, negotiating countries in Paris adopted such obligations towards developing countries mainly because they were pressed by the urgency of the call towards a global participation in the effort to limit the global temperature increase under 2 degrees Celsius by the end of the current century. Arguably, negotiating parties did not thoroughly consider the feasibility of such obligations regarding developing countries' capability to comply with it.

Although developing countries constitutes a heterogeneous group, comprising of some rich and well-equipped countries such as the members of the BASIC group, the oil producing developing countries, and some poorer such as the LDC countries, it is important to note that it is the majority of them that lacked and may still lack the financial means to implement adequate climate change policies, besides they acknowledged under equipment regarding climate change. The majority of developing countries still uses older, dirtier and polluting technologies in sustaining their economies and lack the necessary infrastructure and policies that can allow them to develop alternatives that are environmentally-friendly.¹⁰²⁴

Article 9.1 of the Paris Agreement urges developed countries to provide financial resources to assist developing country parties with respect to their mitigation and

¹⁰²³ Reflection available at: http://climatechange.sea.ca/kyoto_protocol.html. (Accessed: 20 November 2016).

¹⁰²⁴ *Ibid.*

adaptation plans, in continuation of their existing obligations under the UNFCCC.¹⁰²⁵ Article 9.2 provides for a scaling-up of the climate change financial assistance which should take into account country-driven strategies and the priorities, as well as the needs of developing country parties, especially those that are particularly vulnerable to the adverse effects of climate change and have significant capacity constraints, such as the LDC and the small island developing states.

However, despite the above disposition of the new regime, which offers some guarantees of financial assistance towards developing countries in meeting their new obligations, the absence of an effective working financial mechanism under the Paris Agreement will defeat its very objective if not channelled to help developing countries, especially the most vulnerable to ensure a transition towards a green economy.¹⁰²⁶ The reason is that those vulnerable countries may continue to rely on older, inefficient and highly emitting technologies for their developmental goals, as they lack the necessary financial means to acquire the modern low-emitting technologies and other equipment in order to comply with their new obligations under the universal climate change regime.¹⁰²⁷ Furthermore, with the current demographic expansion and the need for economic development that developing countries are experimenting, emissions might likely continue to grow, despite that their national goal will to be compliant with their new mitigation obligations. Therefore, from a global perspective, the climate change fight will be the loser and will put in danger the objective of the Paris' Agreement, because any gain obtained from the emissions abatement realised through the contribution of developed countries would be offset by the growth of the emissions originating from those developing countries, to whom no other choice would be left beside the use of their cheaper but highly polluting technologies to build and sustain their national economies.

The fourth differentiating characteristic refers to the obligation to cap GHG emissions in the long term run. It can as well be subject to an analysis similar to the one made above. As it was the case for the three previous parameters in comparison, the obligation that developing countries should cap their GHG emissions did not exist under the Kyoto

¹⁰²⁵ See Article 9.1 and 9.2 of the Paris Agreement.

¹⁰²⁶ With wide emission reduction or limitation targets over time as required under the Paris Agreement.

¹⁰²⁷ *Ibid* note 1017 above.

Protocol. Therefore, it constitutes an innovation brought into the climate change regime by the Paris Agreement. However, even though in the future, the capping of greenhouse gas emissions as required under the Paris Agreement will be beneficial to developing countries (and the global environment) once achieved, the immediate associated costs to achieving that will be one of the greatest challenges for the group of developing countries.

It is broadly admitted that countries feel more encouraged, or even pressed to initiate institutional and policy actions and reforms on a ground level once confronted by top-down emission reduction target.¹⁰²⁸ Therefore, because of the exemption regime they enjoyed under the UNFCCC and the Kyoto Protocol, most developing countries were not motivated in adopting adequate national mitigation policies. Because of that, there are at present legitimate concerns regarding whether or not developing countries are able to successfully adopt and implement measures to cap their GHG emissions in the long run, as required by the new regime. This is because the mitigation governance frameworks which is currently in place in developing countries are those set up in response to the previous UNFCCC/Kyoto exemption regime.¹⁰²⁹ However, in the event the assessment of the governance frameworks which are currently in place will reveal that they require to be upgraded, the concern will turn to be whether the richer parties to the Agreement would make available the needed financial and material support in order to realise the necessary adjustments? This ultimately brings us back to the concern regarding the financial mechanism of the Paris Agreement, which we have succinctly discussed above, due to the limitations of the current study which unfortunately did not give much space to such debate.

From the current context, the mitigation measures that the Paris Agreement expect developing countries to take seems hardly affordable for most of them, because of the related direct costs, the loss of jobs and other associated long-term costs as discussed above.¹⁰³⁰ The economic implications are of such a magnitude that many experts think that the exigencies regarding climate change will not be prioritised by developing

¹⁰²⁸ S. Rayner ‘How to eat an elephant: a bottom-up approach to climate policy’ (2010) 10 (6) *Cl. Pol* at 620.

¹⁰²⁹ See note Chapter 4 above on the regime of the Kyoto Protocol for more details.

¹⁰³⁰ See section 5.4.7 above.

countries, as there will still be many more important and immediate domestic priorities that they will need to consider and try to solve first, before taking on climate change consideration.¹⁰³¹

The fifth differentiating characteristic concerns the obligation developing countries have towards the transparency mechanism established under Article 13.1 of the Paris Agreement. The transparency mechanism is a common framework and an accountability mechanism in order to build mutual trust and confidence among parties and to promote an effective implementation of the Agreement.¹⁰³² To that end, Article 4.8 of the Paris Agreement introduces a new obligation which did not exist under the Kyoto regime, which urges all the parties to the Agreement to provide all the information which is necessary for clarity, transparency and understanding while communicating their NDCs. As for developing countries, they are in addition expected to provide information on the support needed and received from third parties, including information on the use of any received support, as well as the impacts and results secured, thanks to it.

6.3.2. Similarities

As a result of the emptiness of the Kyoto Protocol regarding developing countries' mitigation obligations, similarities between its regime and the regime of the Paris Agreement are scarce. Nevertheless, the study has noted some few features of the Kyoto Protocol's regime regarding the mitigation obligation that are also found in the Paris Agreement and will be applied to developing countries as well. They are the object of the focus of the study here below.

The first point of similarity is the reliance on domestic policies for the realisation of the objective of the treaty, as the NDCs of the Paris Agreement are based on domestic policies on climate change that countries need to adopt and implement, in contribution

¹⁰³¹ 'While no finite estimate of how much the Kyoto Protocol would cost has been prepared, projects such as providing clean water to the world's population, which would save millions of lives annually, could be realized for a fraction of the cost and have far more immediate benefits.' See F. Engelbeen "Kyoto's Shortcomings and Other Proposals" (December 2001) *INFOTERRA*. Information available at: <http://www.cedar.at/mailarchives/infoterra/2001/msg01042.html>. (Accessed: 14 November 2016).

¹⁰³² See section 5.3.8.6 above for more details on the transparency mechanism of the Paris Agreement.

to the global effort to mitigation as per the Agreement's Article 4.2.¹⁰³³ Under Article 10 (b) (ii) of the Kyoto Protocol, developing countries were also expected to voluntarily undertake emission mitigation activities,¹⁰³⁴ because they were expected to include in their national communication information on programmes which contain climate change measures, including the abatement of increases in greenhouse gas emissions.

"Parties included in Annex I shall submit information on action under this Protocol, including national programmes, in accordance with Article 7; and other Parties shall seek to include in their national communications, as appropriate, information on programmes which contain measures that the Party believes contribute to addressing climate change and its adverse impacts, including the abatement of increases in greenhouse gas emissions, and enhancement of and removals by sinks, capacity building and adaptation measures"¹⁰³⁵

This disposition of the Kyoto Protocol provided for voluntary mitigation actions by developing countries, in contribution to the global effort to curb climate change. Similar provisions are found under Articles 2.1(a), 2.1(a) (vi), and 2.1(b) of the Kyoto Protocol whereby country parties are urged to adopt and elaborate policies and measures in accordance with their national circumstances and undertake appropriate reforms in relevant sectors aimed at promoting policies and measures which limit or reduce emissions of GHG. Although the elaboration and implementation of NDCs by parties constitute a legally binding obligation under the Paris Agreement, their content is not legally binding and rather depends on parties themselves, who will decide on their national mitigation goals and on which activities to bring forth as a national contribution to the climate change response, as it is the case for developing countries under Article 10 (b) (ii) of the Kyoto Protocol.

The next point of similarity between the two regimes is found under Article 15.1 of the Paris Agreement and Article 15.1 of the Kyoto Protocol. Article 15.1 of the Paris Agreement has established a statutory mechanism which aims at facilitating the implementation of the treaty by country parties and promote compliance with its

¹⁰³³ See section 4.3 above.

¹⁰³⁴ See note 600 above.

¹⁰³⁵ Article 10 (b) (ii) of the Kyoto Protocol.

provisions, whereas Article 15.1 of the Kyoto Protocol has established a subsidiary body for the implementation of the Protocol, with the mandate of facilitating the implementation and promoting compliance with the provisions of the Protocol among the country parties. A closer analysis of both provisions has shown that the facilitative mechanisms of both treaties were roughly comparable. A further comparable element can be the review mechanism attached to the NDCs strategy under the Paris Agreement, which is planned to be held every five years. Such approach looks similar to the review Mechanism provided for in Articles 7, 8 and 9 of the Kyoto Protocol, as far as the voluntary mitigation activities undertaken by developing countries are concerned.

6.4. Conclusion

The present chapter was an attempt to identify and analyse the differences and similarities between the emission mitigation regimes established by the Kyoto Protocol and the Paris Agreement for developing countries. Due to the silence of the Kyoto Protocol regarding the obligation to emission mitigation by developing countries, the comparative analysis between the two regimes could hardly be established upon anything substantial taken from the Kyoto Protocol in comparison to the Paris Agreement. The differences between the two regimes were eventually limited to an attempt to contrast the five major innovations brought by the Paris Agreement against some of the features of Kyoto Protocol that could be extended to the mitigation of emissions by developing countries. Although unlike the Kyoto Protocol, the Paris Agreement covers all the country parties to the UNFCCC, there are growing concerns about whether developing countries have in place, or will be able to have in place the adequate framework to guarantee the success of their obligations under the new regime. Therefore, further works will be needed through the COP Process to identify and solve potential gaps.

CHAPTER VII: CONCLUSION

7.1. Overview of the thesis

The present thesis is an attempt to capture the contribution of developing countries to the current global effort to tackle climate change. It has specifically endeavoured to draw a comparative analysis between two legally adopted regimes in order to govern the GHG emission abatement by country parties to the UNFCCC. The first regime was the one under the 1997 Kyoto Protocol (which has had two commitment periods) and the second regime was the one under the 2015 Paris Agreement on climate change. It is to this end that the study has been limited and focused on the core provisions of both treaties that were concerned with the mitigation of GHG emissions by developing countries.

Investigations accounting for the study were conducted around the key question: “To what extent has the GHG emission reduction regime of developing countries parties to the UNFCCC shifted from the 1997 Kyoto Protocol to the 2015 Paris Agreement on climate change?” There were two broader sub-questions that guided the research, the first was: “What were the differences and the similarities between the GHG emissions mitigation regimes for developing countries under both treaties?” whereas the second was, “If there were any differences or similarities resulting from the regime shift from Kyoto to Paris, what were the implications of those differences or similarities for the group of developing countries?”

What justified the research was the importance of considering well before the implementation of the Paris Agreement, the bulk of legal obligations relating to GHG mitigation as it was put on the shoulders of the developing country parties, being that the obligations under the Paris Agreement are in contrast with the exemptions developing countries enjoyed under the Kyoto Protocol. That is the reason why the study was limited to the GHG mitigation provisions of both treaties, in order to provide a broader view on their legal characteristics for developing countries, and further outline the different elements which are to be compared.

The dissertation began by sketching the overall research as an introduction and then it gave an overview on the key notions of the study. Notions regarding climate change science, or the controversial concepts of developed versus developing countries, as well as some insightful analysis regarding the Principle of Equity and CBDR-RC, were exposed and discussed. Through climate change science, the research was mostly focused on the area of GHG emissions and also considered the drivers of the emissions that are occurring currently and also the global figures of global emissions, before discussing the reasons for concern for the mitigation of global emissions.

The criteria that are referred to while deciding whether a country is a “developed country” or a “developing country” were analysed and discussed in chapter two. This was done because it is on that classification that rested the UNFCCC/Kyoto Protocol climate change regime, which did create a controversial bifurcation of climate change responsibilities between the two groups of countries, particularly in the field of emissions mitigations. The UNFCCC/Kyoto Protocol’s regime has allocated the burden of emissions mitigation to developed countries that were listed in Annex I, owing to the interpretation and the application of the CBDR principle based on the climate change context and knowledge that prevailed in 1992.

The study then considered the birth and the historical moves made by the UNFCCC/Kyoto international emission mitigation regime for developing countries over time. It has analysed the evolution of the discussions under the Conference of the Parties to the UNFCCC (COP) forums and has put to light the fact that the differential treatment between developed and developing countries was being increasingly attacked and ended up defeated and replaced by the Paris’ universal regime which is applicable to all. This occurred for two reasons: first, from a situation where, at the adoption of the UNFCCC in 1992, the global context was dominated by the emissions from OECD countries (developed countries) as main emitters at the time, developing countries’ emissions has swollen to the extent that they are at present among the main emitters worldwide. This radical evolution eventually brought into question the meaning and usefulness of the regime of exemption to emission mitigation developing countries were granted under the UNFCCC and the Kyoto Protocol; secondly, the launch of an urgent call to a

universal participation of all countries, whether developed or developing to undertake emissions mitigation activities to save the planet.

In chapter four, the dissertation analysed the Kyoto Protocol's regime regarding the emission mitigation by developing countries, which it has noticed to be substantially void of any legally binding mitigation obligation for developing countries, before putting under scrutiny, in chapter five, the Paris Agreement's universal regime, which applies binding mitigation obligation to developing countries as well. The analyses undertaken in chapters four and five were done in order to identify the key features of the regimes in both treaties regarding the emissions mitigation by developing countries, with the aim of obtaining a platform for a regime comparison based on the identified parameters. Chapter six undertook the comparison between the regimes of the two treaties has exposed and discussed the key features that constitute the regime shift for the mitigation of GHG emission by developing countries. This present chapter concludes with an overview of the thesis and a summary of the key findings from the analysis conducted on the regimes of both treaties, assorted with the possible ways forward.

7.2. Summary of findings

Broadly speaking, the nuance between the two regimes will look obvious at first glance, this is because in one hand there is the regime of the Kyoto Protocol, under which nothing substantial was required from developing countries apart from an expectation that they would undertake voluntary mitigation actions; and on the other hand the regime of the Paris Agreement, under which developing countries have specific substantial mitigation obligations. However, although these contrasting characteristics seem to offer at first glance the difference that exists between the two regimes of the two treaties, a closer consideration of both texts has revealed more regime subtleties which has allowed the drawing of the differences and the similarities of both treaties regarding the emission mitigation regime by developing countries. Chapter six above identified and analysed those subtleties. The following section will be an attempt to summarise them as they consist of differences and similarities between the two regimes, in order to catch the significance of the new mitigation obligations that are on the shoulders of developing countries under the new climate change regime of the Paris Agreement.

7.2.1. The abandonment of the differential treatment applied under the regimes of UNFCCC and the Kyoto Protocol between developing and developed countries

In response to the first sub-question that was raised in this study, chapter four established that there was hardly consensus among parties regarding the absence of emission mitigation obligations for the group of developing countries under the Kyoto Protocol. Given the background of the pressing call towards all the parties to the UNFCCC to converge their efforts to contain the global temperature increase within the margin of 2 degrees Celsius compared to the pre-industrial era and thus avoid dangerous anthropogenic interferences with the climate system, concerns arose about the increasing emissions from the group of developing countries, to the extent of becoming one of the major controversial points during the climate change talks, as demonstrated by chapter three. After the Chinese emissions surpassed those of the United States of America in 2007, it became evident that something had to change regarding the UNFCCC/Kyoto differential treatment which was in favour of developing countries.¹⁰³⁶ The new major emitters among developing countries were especially finger pointed to be included as well in an emission mitigation scheme. After 2007, efforts to maintain the UNFCCC/Kyoto's differential regime were not only in vain, but they also provoked increased dissatisfactions and attacks from the majority of developed countries to the point of almost bringing the collapse of the Kyoto Protocol and the blockage of climate change negotiations.

Chapter three established that prior to 2015, the inclusion of developing countries in an emission mitigation scheme became a key point during the COP negotiations towards a new climate change regime. Chapter five, in turn established that the 2015 Paris Agreement brought the solution to the above matter by instituting a universal climate change regime which applies to both developed and developing country parties to the UNFCCC. The Paris Agreement has abandoned the binary differential approach of the UNFCCC/Kyoto Protocol in favour of a subtle differential approach which is based on

¹⁰³⁶ Busby (note 981 above; 2).

equity, and Common But Differentiated Responsibilities and Respective Capabilities principle, in light of different national circumstances. Therefore, unlike the Kyoto Protocol which only regulated developed countries' emissions, the Paris Agreement has set a series of innovative provisions towards emission mitigation by developing countries as well. These provisions urge developing countries to undertake emission mitigation actions, in contribution to the global effort to tame climate change, hoping that by increasing the amount of emissions covered by binding mitigation measures, one also increased chances of staying well below the 2 degrees Celsius of temperature increase required. Chapter four has shown that the Kyoto Protocol's regime refrained from allocating emission mitigation targets to developing countries, whereas chapter five has identified five key features of the Paris Agreement's regime regarding the obligations of emission mitigation by developing countries. The five key features are as follows:

- The obligation to prepare, communicate and maintain successive ambitious NDC;
- The obligation to pursue domestic mitigation measures;
- The obligation to undertake economy wide emission reduction or limitation targets over time;
- The obligation to "cap" GHG emissions in a long term run;
- The obligations towards the transparency mechanism of the Agreement.

In chapter 5, developing countries have been found to be a heterogeneous group, which deserves to be taken into consideration in implementing the Paris Agreement, to avoid a misuse of the CBDR-RC principle.

7.2.2. Differences and similarities between the regimes of the Kyoto Protocol and the Paris Agreement regarding the mitigation of emission by developing countries

In response to the two sub-questions of the study, chapter six has identified, analysed, and discussed the implications of the differences and similarities between the emission mitigation regimes established by both treaties for the group of developing countries. Due to the silence of the Kyoto Protocol regarding the obligation to emission mitigation

by developing countries, nothing significant could be referred to for a comparison to the above features of the Paris Agreement's regime. Therefore, the comparative analysis of the differences and similarities of the two regimes turned to become an effort to contrast the Paris' above five key features against the Kyoto's regime of no mitigation obligation for developing countries.

From an environmental perspective, the inclusion of developing countries in the global effort by the Paris Agreement to as well mitigate their GHG emission constitutes a success which is harvested by the climate change international diplomacy. However, there are growing concerns about the chances of a successful implementation of the above obligations by the majority of developing countries, because the implementation by developing countries of their new statutory obligations constitutes the next step for the new climate change regime. It is also and the logical implication of the regime shift that has occurred from the Kyoto Protocol to the Paris Agreement. Whether or not developing countries will be able to put in place the adequate frameworks that guarantee a successful implementation of their obligations under the new regime is among the things that matter next. Especially because of the identified inadequacy of the NDCs pledges with what is required in terms of emission cuts in order to stay within a safe margin of temperature increase at the end of the present century, as discussed in section 5.4.8.2 above.

To prepare and maintain the successive NDCs, more ambitious each time in comparison to the previous ones, and to undertake economy wide emission reduction with the aim of curbing the emissions in a long term run will need a huge support to developing countries from developed countries, as also acknowledged by the Paris Agreement's provisions with that respect. Further works will, therefore be needed, namely through the COP processes, in order to identify and to solve the gaps towards such achievements. It will also be useful to identify any potential source of hindrance for the success of the new regime and endeavour to deal with upstream. This is because the fate of the future of life on earth depends on that.

7.2.3. Recommendations

The recommendation which emanates from the current research concern the possibility of a success or a failure regarding the expectations that arose because of the inclusion of developing countries in a universal climate change regime. This is done because of the benefits that inclusion can bring regarding the climate change problem, given that henceforth, developing and developed countries are both put under obligation to mitigate their GHG emissions.

After the adoption of the Paris Agreement, which was followed by its faster than expected entry into force, the next step towards its success becomes its effective implementation by country parties, especially the developing countries. In other words, to reach its goal, the Paris Agreement will need full involvement of all categories of developing countries, whether major or insignificant emitters, this is because from 2020 onwards, the Paris Agreement will be the principal global instrument under which will be organised the international, and further the domestic response to climate change for country parties, whereas developing countries are expected to be the main emitters of the GHG from 2030 onwards. Therefore, a successful implementation of the Paris Agreement by developing countries might determine its success, as well as the fulfilment of its ultimate objective.

However, subject to the heterogeneity of the group of developing countries, which comprise both rich and poor countries, with varying financial and material climate change capabilities, the above hope to a successful Paris Agreement which is put on a full and significant participation of the group of developing countries may be threatened by the poverty and poor national circumstances of the majority of them. Especially because most of developing country parties are currently recognised not to have the necessary means to implement the Agreement and comply with their new mitigation obligations, hence the concern about their effective participation to the new regime in the absence of a mechanism of assistance as said above.¹⁰³⁷

¹⁰³⁷ See section 5.4.8.2 above.

After months of considering, analysing and writing about the regime shift regarding the emission mitigation obligation that the Paris Agreement has introduced for developing countries, it is humbling to only realise that the journey towards the effectiveness of its new regime has not yet even started. This is because the adoption of a treaty is one thing and its success is another, especially in the field of climate change where the failure of the Kyoto Protocol to reach its targets is pedagogical. The urgency of actions to slow climate change and limit the global temperature increase to well below two degrees at the end of the current century as required by the Paris Agreement will necessitate that country parties ensure that everything needed to that extent is put in place.

The fact that developing countries have been eventually included into a universal regime of binding emission mitigation does not in itself constitute the necessary and sufficient condition for the global emission gap to be filled, although above any other consideration, it seems to be the most important outcome the climate change diplomacy may have to date.¹⁰³⁸ One has to ensure, thereafter that countries have the necessary means to successfully implement the treaty after it has been ratified. This will especially be the case for developing countries as they need to undertake innovative emission mitigation efforts and acquire sober carbon technologies, as well as deploy other forms of efforts towards a decarbonised economy, in order to be able to deliver the expected national mitigation outcomes in contribution to the fulfilment of the objective of the new treaty. For such enterprises to be undertaken by poor and underequipped countries will unavoidably need assistance from those who have the needed means. Therefore, developed countries will have to assume more effectively their statutory role of leading the fight against climate change and pursue their assistance towards the developing country parties to the new regime to allow them to optimise their contribution to the fight against the global threat of climate change.

¹⁰³⁸ See section 5.3.2 above.

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