



A CRITICAL ANALYSIS OF THE KYOTO PROTOCOL'S SECOND COMMITMENT PERIOD

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Declaration

I, Juan Manuel Sabio Morchio, hereby declare that unless specifically indicated to the contrary, this thesis is the result of my own work.

Furthermore, I declare that the material contained in this thesis has not been submitted to this or any other university in partial fulfilment or fulfilment of the requirements for another degree.

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Abstract

Over the last four decades, the issue of climate change has drawn a rather great amount of attention in the international environmental law arena. Starting in 1992 with the adoption of the United Nations Framework Convention on Climate Change (UNFCCC), climate change began to be addressed for the first time as an international concern and at an international level. The adoption of the UNFCCC was merely a framework Convention without any actual greenhouse gas emission reduction targets. Nevertheless, in 1997, the Kyoto Protocol to the UNFCCC was adopted and it entered into force in 2005. Such Protocol gave enforcement to the principles and objectives of the parent framework Convention.

The Protocol consisted of a first commitment period which began in 2008 and concluded in 2012. Such period imposed obligations on all Parties but only compulsory emission reduction targets on developed countries. The distinction between both worlds was due to the principle of common but differentiated responsibility (CBDR).

After the conclusion of the first commitment period, there was large uncertainty regarding the future of the Kyoto Protocol as there was no other legal regime in existence for the post-2012 period. This gave rise to heated debates at various Conferences of the Parties (COP's). Fortunately, in 2012 at Doha, Qatar an amendment to the Kyoto Protocol was adopted which ultimately created a second commitment period between member Parties and it extended the Protocol from 1 January 2013 until 31 December 2020.

This thesis will primarily focus on the Kyoto Protocol's second commitment period, coupled with the legal issues which have had to be addressed in order to ensure a seamless transition onto the second commitment period. Thereafter, an analysis will be provided regarding the potential efficacy of the second commitment period and whether this will be sufficient to curb global climate change.

The author is of the view that by the culmination of this thesis, the reader would have an up-to-date understanding of the current status of the international legal climate change regime. This will enable the reader to comprehend what the member Parties needed to decide in order for a second commitment period to emerge and how it will work.

Lastly, the time of writing is as of July 2013.

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'Gracias a mis padres, sin los cuales no habría logrado lo que he logrado en la vida hasta el momento. Su apoyo constante y la creencia en mi capacidad para hacer las cosas nunca les ha faltado. Gracias por darme esta oportunidad y espero poder hacerlos orgullosos.'

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Introduction

Over the last four decades, climate change has become an issue of paramount importance in the arena of international environmental law. According to Kidd, ‘Climate change is perhaps the most important environmental concern facing the international community today.’¹ This clearly depicts that environmental catastrophes have escalated in numbers and gravity to such an extent that addressing climate change through the adoption and subsequent enforcement of future Multilateral Environmental Agreements (MEA’s) is only part of the solution.

In order to comprehend global climate change, scientific statistics should briefly be addressed so as to bring light in understanding what this climate phenomenon actually means. Climate change can be defined as ‘a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere, and which is in addition to natural climate variability observed over comparable time periods.’²

In addition, some of the environmental changes which have been caused by climate change can best be depicted in the following manner: ‘climate change has brought about increases in global average air and ocean temperatures, widespread melting ice, and rising global sea level are apparent, while the Earth’s average surface temperature has risen by over 0,8 degrees Celsius since 1850.’³

If one takes into consideration the above-mentioned consequences, it becomes evident that worldwide cooperation is crucial in addressing a problem of such magnitude. ‘As international concern over the increasing evidence of global warming and its implications

¹ Kidd, M, ‘International Environmental Law’ in Kidd M. *Environmental Law*. 2nd ed, (2011), 45 at 60.

² Article 1(2) of the UNFCCC. See Glazewski, J & du Toit, L. ‘International Climate Change Law’ in J Glazewski. *Environmental Law in South Africa*. Service Issue 1, (2013), 3-1 at 3-6.

³ Alestalo, M. Man-made Climate Change: The Scientific basis and the Main Implications. *International Environmental Law-making and Diplomacy Review* 2010. UNEP, (2011), at 4.

have grown, the international community recognised that concerted efforts would be necessary to combat this impending worldwide crisis.’⁴

According to the United Nations Framework Convention on Climate Change (UNFCCC), which will be analysed in chapter 2 below, it has stated that climate change has to be addressed by reducing greenhouse gas emissions.⁵ ‘In 2010, governments agreed that emissions need to be reduced so that global temperature increases are limited to below 2 degrees Celsius.’⁶ An analysis describing why greenhouse gas emissions should be reduced by states will be given coupled with the legal issues which have had to be addressed in order to ensure their presence and enforcement.

Furthermore, according to the Intergovernmental Panel on Climate Change⁷ only by significant and immediate reductions in the amount of carbon dioxide emitted can we hope to avoid the more catastrophic consequences.⁸ Regarding its consequences, it is predicted that ‘the global average surface temperature is expected to rise by 0.2 to 0.4 degrees Celsius per decade throughout the 21st century and would continue to rise thereafter.’⁹ Also, towards the end of this century, the total accumulation of warming is expected to be approximately between ‘3 to 5 degrees Celsius.’¹⁰ It must be noted however, that the increase in temperature can have the consequences of ‘shifting climate zones, destruction of forests, endanger ecosystems such as mountains and wetlands, result in a surge of diseases and affect agricultural and fishery production, thus resulting in the risk of famine.’¹¹

⁴ Rumsey, A.B. & King, N.D. ‘Climate Change: Impacts, Adaptation, and Mitigation; Threats and Opportunities’ in HA Strydom & ND King, *Environmental Management in South Africa*, 2nd ed, (2009), 1048 at 1052.

⁵ Carbon dioxide is one of the principal greenhouse gases being emitted into the atmosphere. See Australian Government. Department of the Environment. Greenhouse Effect. Available at: <http://www.climatechange.gov.au/greenhouse-effect>. Accessed on: 1 November 2013.

⁶ A rise of 2 degrees Celsius in global air temperature is the maximum increase which should take place in order to keep climate change consequences under control. See Background to the UNFCCC: The international response to climate change. Available at: http://unfccc.int/essential_background/items/6031.php. 2013. Accessed on: 22 November 2013.

⁷ In 1998, the IPCC was formed by the ‘World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP).’ The IPCC is not mandated to do its own research. Its assessments are done by gathering analyses of peer reviews and published scientific reports on the issue of climate change. See Rumsey & King (note 4) at 1050.

⁸ Climate change 2007: ‘The Physical Science Basis, Summary for Policymakers’ IPCC Working Group I Report.

⁹ United Nations Found & Sigma Xi: The Scientific Research Society, *Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable* 1-2 (2007). Available at: <http://www.sigmaxi.org/about/news/UNSEGOonline.pdf>. Accessed on: 6 December 2013.

¹⁰ *Ibid.*

¹¹ Oberthur, S & Ott, H.E. *The Kyoto Protocol: International Climate Policy for the 21st Century*, (1999), at 4-5.

In its latest published report, namely the Fourth Assessment Report, which was released in 2007¹² the IPCC found that there are significant anthropogenic (human-induced) climate change impacts and that prompt action is required to counteract adverse effects that could be catastrophic.¹³

The Fourth Assessment Report¹⁴ stated that carbon dioxide constituted 57 % of all greenhouse gases concentrated in the atmosphere. In addition, it was also reported that there was approximately 90 % certainty that climate change was human-induced. ‘This marks an increase from 66 % in 2001 and just over 50 % in 1995.’¹⁵

The IPCC’s Fifth Assessment Report, is due to be completed and be made fully available during October 2014. Nevertheless, a summary of it has been made available for policy-makers. Such summary states that there is now ‘95% confidence that humans are the main cause of the current global warming. In fact, if one looks closely, the IPCC says that humans have most likely caused all of the global warming over the past 60 years.’¹⁶

After having laid the scientific foundation of climate change, a shift must be made towards how climate change is currently being addressed through the use of legal regimes.

Initially, in 1992 the international community adopted the United Nations Framework Convention on Climate Change (UNFCCC), which was one of the outcomes of the Earth Summit held in Rio de Janeiro, Brazil in 1992. The framework Convention has near universal membership¹⁷ with 195 Parties. This was the very first step in the recognition that climate change was a serious threat to life on Earth and that immediate action had to be taken at an international level. In other words, cooperation from states and subsequently from member Parties to the framework Convention was not only required but also vital.

¹² Mabey, N, Hall, S, Smith, C & Gupta, S. *Argument in the Greenhouse: The International Economics of Controlling Climate Change*, (1997), at 5.

¹³ For possible environmental, social and economic catastrophes that may result from global climate change, see IPCC *Climate change 2001: Impacts, adaptation, vulnerability to life on earth as we know it* (B Metz, OR Davidson, PR Bosch, R Dave & LA Mayer (eds) *Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, (2007).

¹⁴The Guardian. Environment. Available at: <http://www.theguardian.com/environment/climate-consensus97percent/2013/sep/27/global-warming-ipcc-report-humans>. 2013. Accessed on: 13 November 2013.

¹⁵ IPCC Report Leaked. Available at: <http://www.natureworldnews.com/articles/3543/20130820/leaked-ipcc-reportcites95percent-certainty-global-warming-manmade.htm>. 2013. Accessed on: 13 November 2013.

¹⁶ See The Guardian. Environment (note 14).

¹⁷ Universal membership amounts to a total of 197 member Parties. See United Nations Environment Programme. Ozone Secretariat. The Vienna Convention for the Protection of the Ozone Layer. Available at: http://ozone.unep.org/new_site/en/vienna_convention.php. 2011. Accessed on 17 January 2014.

However, while the framework Convention was the initial MEA to address climate change, it did not contain specific emission reduction targets applicable to member Parties. All the framework Convention did was impose general obligations on the developed world but no mention was made as to how such obligations were to be carried out. Due to this, in 1997 the Kyoto Protocol to the UNFCCC, which is currently comprised of 192 Parties with 83 signatories, was adopted. This Protocol contained legally binding emission reduction targets applicable to the developed world and certain obligations without emission reduction targets posed on the developing world. The differentiation between developed and developing countries arose from the principle of ‘common but differentiated responsibility (CBDR).’¹⁸ The importance of this principle is of such nature that it will be addressed in greater detail in chapter 2 below.

Both these international instruments took centre stage at a time when there was scientific uncertainty regarding whether climate change was indeed taking place, or whether it was a normal weather cycle bound to take place, despite human interference.¹⁹ Nevertheless, despite such uncertainty, 195 Parties gathered in Rio to adopt the UNFCCC as well as its Protocol five years later in Kyoto, Japan.

Furthermore, since global climate change is an on-going process and that it has been occurring with greater intensity since 1760, when the Industrial Revolution²⁰ began, an adaptive legal regime was needed. In other words, an instrument which was strict enough to address climate change, yet flexible enough so as to allow it to adapt to possible climate change anomalies. The scientific evidence that this is as a result of human activity, largely industrialisation, is unequivocal.²¹

¹⁸ The principle of ‘common but differentiated responsibility’ derives from the notion of the ‘common heritage of mankind.’ This notion represents equity in international law. The principle states that not all states have the same capacity to effectively address the issue of climate change. In other words, developed states must assist developing states in addressing this issue as they are in a better financial position (more resources available). The link between the notion and the principle is that while the environment belongs to all, a differentiation must be made between those who are more responsible for its degradation and those who are also responsible but to a lesser extent. See A CISDL Legal Brief. The Principle of Common But Differentiated Responsibilities: Origins and Scope. Available at: http://cisdl.org/public/docs/news/brief_common.pdf. 2002. Accessed on: 6 December 2013.

¹⁹ See The Guardian. Environment (note 14).

²⁰ Montagna, J.A. Yale-New Haven Teacher Institute. The Industrial Revolution. Available at: <http://www.yale.edu/ynhti/curriculum/units/1981/2/81.02.06.x.html>. 2013. Accessed on: 31 October 2013.

²¹ Intergovernmental Panel on Climate Change. *Climate Change 2007: The Physical Basis-Summary for Policymakers* (Fourth Assessment Report). Available at: <http://www.ipcc.ch>. 2007. Accessed on: 16 August 2013, at 5.

As it has been seen, a climate change regime was needed in place and without further delays. In 1997, the Kyoto Protocol was adopted but only entered into force in 2005. This was due to a lack of political will²² to ratify the Protocol.²³ Nevertheless, the Protocol entered into force in 2005 and its first commitment period commenced on 1 January 2008 and concluded on 31 December 2012. In order to properly address greenhouse gas emissions, the Kyoto Protocol had to ensure that reductions be monitored and assessed through commitment periods. In other words, developed states would comply with emission reduction targets for five years, as was the case in the first commitment period, and if positive results were obtained, developed states would continue with the same philosophy in a further commitment period, as is the current case with the second commitment period. The logic behind this is that greenhouse gas emissions from developed as well as developing countries vary from time to time²⁴ therefore it would be unwise to have a commitment period which lasts indefinitely. Periods must be short (five to eight years) in order to ensure that emission reduction targets can be adjusted in subsequent periods should it be needed. However, one of the biggest uncertainties which surrounded the UNFCCC and its Kyoto Protocol, which on paper only lasted until 2012, was the future post-2012.

This thesis will be divided into five chapters. Chapter 1 commences with a brief description of how climate change issues were firstly addressed in the early 1990's. Followed by the role played by the IPCC in providing scientific certainty regarding climate change. Chapter 2 provides a brief overview of the climate change regime which is still the only legal instrument which addresses and combats climate change at an international level. In addition, how the Kyoto Protocol came to light after the UNFCCC adopted it in 1997. The interconnectedness between the Kyoto Protocol and its first commitment period which concluded in December 2012 will be thoroughly described. Chapter 3 provides an analysis of the climate change regime up until 2012, coupled with the shortfalls of the first commitment period. Also how all these weaknesses were partly addressed at the eighteenth Conference of the Parties (COP 18) in Doha, Qatar during December 2012.

²² Climate Change. Past and Future. Climate Change in the Political Realm. Kyoto and Den Haag: what is (not) happening? Available at: http://earthguide.ucsd.edu/virtualmuseum/climatechange2/09_1.shtml. 2002. Accessed on: 6 December 2013.

²³ It must not be forgotten that international instruments must be signed and thereafter ratified for them to come into force. In terms of the Kyoto Protocol, only once it had been ratified by three-fourths of the Parties, only then it would come into force.

²⁴ Depending on economic expansion.

Chapter 4 is the primary focus of this thesis. This will solely focus on how the Kyoto Protocol's second commitment period (2013-2020) was adopted, all the legal issues which have had to be addressed in order to secure its establishment and how it sets it apart from its weaker, older brother- the first commitment period. Importantly, the second commitment period will take centre stage with specific focus on how it has been operating since 1 January 2013 until it concludes on 31 December 2020. Of paramount importance, is the issue of ratification by the member Parties and whether provisional application of the amendment has in fact succeeded in bringing such amendments into legal operation.

The concluding phase of the thesis is located in chapter 5. This chapter relates to the future of a climate change regime, how an international agreement which is scheduled to be adopted in 2015 at COP 21 in Paris and be fully operational from 2020 will be addressed and how such future agreement could be a better attempt to address climate change. It must not be forgotten that should the second commitment period not be addressing climate change as it is mandated to operate; this would simply cause chaos since at the moment it is the only operating legal regime addressing climate change at an international level. Lastly, concluding remark regarding the Kyoto Protocol and its second commitment period will be presented.

International Legal Regime

2.1 The United Nations Framework Convention on Climate Change (UNFCCC)

Given the fact that environmental problems are unavoidable, due to our continued over-reliance and dependence on fossil fuels, and that they extend over and above a country's jurisdiction, has become a worldwide concern. In other words, climate change happens to take place at a worldwide scale and it does not have limits or restrictions. 'The nature of environmental problems is such that they cannot be contained by geographical boundaries.'²⁵

Having stated such crucial fact, it would be of paramount importance to begin with a description of the international legal instruments, which are currently addressing climate change. Firstly, the United Nations Framework Convention on Climate Change was adopted in 1992 after the Earth Summit was held in Rio de Janeiro, Brazil.²⁶ It was adopted and signed by 195 Parties, obtaining almost universal membership.²⁷ In addition, it can also be stated that 'one of the accomplishments of the 1992 Rio Earth Summit was the adoption of the United Nations Framework Convention on Climate Change.'²⁸

In order to understand the massive role played by the UNFCCC in climate change, mentioning its objective is crucial. The objective of the UNFCCC, located in Article 2 of the

²⁵ See Kidd (note 1) at 45.

²⁶ The UNFCCC has near-universal membership. A staggering 195 countries have thus far ratified the Convention. As it can be seen, the fact that almost universal membership was attained clearly depicts how important the collaboration from the world at large was and still is in the fight against climate change. See United Nations Framework Convention on Climate Change. Essential Background. The Convention. Available at: http://unfccc.int/essential_background/convention/items/6036.php. Accessed on: 6 December 2013.

²⁷ UNEP. *International Environmental Law-making and Diplomacy Review 2010*. 2011. Editorial Preface.

²⁸ See Glazewski & du Toit (note 2) at 3-5.

framework Convention, is to ‘achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.’²⁹ However, even though the framework Convention can be regarded as the first step in addressing climate change at an international level, its ultimate objective, ‘to achieve stabilization of greenhouse gas concentrations’³⁰ was rather vague and too broad. In other words, no specific emission reduction targets were mentioned in the framework Convention. ‘The obligations, such that there are, under the UNFCCC were seen as inadequate and, for that reason, the Kyoto Protocol was adopted in order to provide for enforceable targets.’³¹

A shift must now be made towards the cornerstone principles of the UNFCCC, which are of utmost importance:

1. The fundamental core principle of the UNFCCC, which has resulted in the seemingly on-going inflexible negotiation process, is that of ‘common but differentiated responsibility.’³²

According to Soltau, ‘Parties should protect the climate system on an equitable basis, but allowing for different responsibilities depending on their individual capacities.’³³ This principle is also referred to as ‘fairness or equity’.³⁴ This leads to the conclusion that not all states have the same capacity to combat global climate change. ‘It thus provides the opportunity to take cognisance of the different stages of development and capacities of different states.’³⁵

²⁹ 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 a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. See United Nations Framework Convention on Climate Change. Full text of the Convention. (note 26).

³⁰ Article 2 of the UNFCCC.

³¹ See Kidd (note 1) at 60.

³² This acknowledges different responsibilities for developed and developing countries, and allows for developed countries to take the lead as stipulated in Article 3(1) of the UNFCCC. See Glazewski & du Toit (note 2) at 3-7.

³³ Soltau, F. *Fairness in International Climate Change Law and Policy* (2009), at 168.

³⁴ *Ibid* at 168.

³⁵ Sands, P. *Principles of International Environmental Law*, (1995), at 217-220 and Magraw, D. ‘Legal Treatment of Developing Countries: Differential, Contextual and Absolute Norms’ 1990 *Columbia Journal of International Law and Policy* at 69.

2. The specific needs and circumstances of developing countries are considered³⁶ this will ensure that developing countries do not bear a disproportionate burden under the framework Convention. It is furthermore recognised in Article 4(7)³⁷ that economic and social development and poverty eradication are the first and overriding priorities of developing country Parties; and
3. International trade is encouraged to promote economic growth of all parties.³⁸

The writer is of the view that even though the environment should be the principal priority in addressing climate change, it seems that economic considerations have overtaken the main objective of the international instruments addressing climate change. This can be attributed to the fact that no Party to the framework Convention or to the Protocol would be willing to spend large amounts of money if such contributions are likely to affect their economies. In other words, lack of political will and international cooperation do have the impact of preventing a high degree of success when attempting to enforce international agreements. Nevertheless, such a statement requires further clarification which will be provided for below.

The Kyoto Protocol, which entered into force in 2005 with the ratification of Russia,³⁹ distinguished between different categories of countries in a way that provides for the principle of CBDR's.⁴⁰ In terms of the Protocol, developed countries and countries with economies in transition were required to reduce their greenhouse gas emission levels to specified percentages, while developing countries did not carry the same burden and were not subjected to compulsory emission reduction targets. However, even though developing countries did have obligations, such obligations did not impose on them compulsory emission

³⁶ Article 3(2) of the UNFCCC.

³⁷ Article 4(7) of the UNFCCC states as follows: The extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties. See United Nations Framework Convention on Climate Change. Full text of the Convention. (note 26).

³⁸ Article 3(5) acknowledges the link between the environment and sustainable economic growth, and stipulates that measures to combat climate change should not impose restrictions on international trade.

³⁹ The Kyoto Protocol entered into force on 16 February 2005. This was done according with Article 23 of the Kyoto Protocol. Such Article stated that the Protocol would come into operation only after 90 days had elapsed from the ratification of at least 55 Parties. See United Nations Framework Convention on Climate Change. Status Ratification of the Kyoto Protocol. Available at: http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php. 2013. Accessed on: 10 December 2013.

⁴⁰ This principle is reinforced in Article 3 of the UNFCCC.

reduction targets. As it can be seen, the principle of CBDR protected developing countries from any form of compulsory obligations or compulsory emission reduction targets, due to the fact that the developed world was more⁴¹ responsible for the amount of greenhouse gases historically emitted.

Due to the fact that the UNFCCC was merely a framework Convention, it became evident that specific greenhouse gas emission reduction targets had to be put in place through another legal instrument. The parties to the framework Convention initiated this at the first Conference of the Parties (COP) of the UNFCCC in Berlin in 1995. The negotiations in 1995 led to the Berlin Mandate⁴² which ultimately led to the creation of an international legally binding instrument to enforce the objectives of the UNFCCC. This resulted in the adoption of the Kyoto Protocol in 1997⁴³ at COP 3, and which came into force in February 2005.

As it can be seen, the UNFCCC was the initial driving mechanism which addressed the complex issue of climate change. The author has decided to label climate change as 'complex' due to the fact that it is essentially recognised that developed states are primarily responsible for a large portion of the greenhouse gases presently polluting the atmosphere, making it their responsibility to stop the increase of global emissions. This has and continues to place an enormous amount of pressure on developed states to reduce greenhouse gas emissions and to 'take the lead' in combating global climate change. This dilemma is a continuing process which will in almost all probability last until the principle of CBDR is amended or adapted in order to include the cooperation from the developed world. Cooperation can be attained by distributing the responsibilities to reduce greenhouse gas emissions between developed and developing countries.

2.2 The Kyoto Protocol

The first emergence of the Kyoto Protocol took place at COP 1 to the UNFCCC, which was held in Berlin in 1995. Here, the parties decided that the commitments under the UNFCCC were inadequate and vague and that actual emission reduction targets needed to be put in

⁴¹ International Public Policy Forum. This house believes that developed countries have a higher obligation to combat climate change than developing countries. Available at: <http://ippf.idebate.org/debatabase/debates/environment/house-believes-developed-countries-have-higher-obligation-combat-climate-change-d>. Accessed on: 10 December 2013.

⁴² Report on the Conference of the Parties on its First Session, held at Berlin from 28 March to 7 April 1995. Available at: <http://unfccc.int/resource/docs/cop1/07a01.pdf>. Accessed on: 7 December 2013.

⁴³ Kyoto Protocol to the United Nations Framework Convention on Climate Change. Available at: <http://unfccc.int/resource/docs/convkp/kpeng.pdf>. 1998. Accessed on: 7 December 2013.

place to properly address global climate change. Due to this, the Kyoto Protocol was born in 1997 at COP 3 in Kyoto, Japan.

The Protocol aims to supplement and strengthen the commitments undertaken in the UNFCCC and the Berlin Mandate. The Protocol addresses three of the primary objectives set out in the Mandate:

1. To create legally binding emission reduction targets for industrialised nations;
2. A requirement that industrialised countries further develop and extend policies; and
3. Measures to meet the emission reduction targets.

The Kyoto Protocol's principal intention is to reduce greenhouse gas emissions by imposing emission reduction targets on developed countries (referred to as Annex I countries) while developing countries (referred to as non-Annex I countries) are not subject to emission reduction targets.

For instance, the Protocol required a commitment of greenhouse gas emission reduction targets from developed countries, which had to be met between 2008 and 2012. This period was referred to as the 'first commitment period', which will be described and analysed in greater detail below.

However, while developing countries did have obligations under the Protocol, they were not subjected to compulsory emission reduction targets. 'The Kyoto Protocol focuses on industrialised countries because they are responsible for most of the past and current greenhouse gas emissions and have the technical knowledge and financial resources to reduce them.'⁴⁴ From a logical point of view, it seems that the rationale for imposing a greater sense of responsibility upon developed countries to reduce their emissions and thereby take the lead in combating global climate change seemed to be in line with the principle of CBDR.

According to Article 3 of the Protocol, the emission targets provided for in such article and listed in Annex B, were applicable during the first commitment period which ended on 31

⁴⁴ See Rumsey & King (note 4) at 1053.

December 2012. Each country had its own emission target which it had committed itself to in terms of the Protocol. Targets ranged from an 8 % reduction in the European Union (EU) and a 6 % reduction in Japan, to a condoned⁴⁵ 8 % increase in the base year emissions for Australia, a 10 % increase for Iceland and a 1% increase for Norway. The aggregate reduction from 1990 emission levels was 5.2 %.⁴⁶ As it can be seen, there were three specific instances where developed countries were allowed to increase their greenhouse gas emissions over their 1990 base levels. While this was allowed under the Protocol, it was due to the different circumstances of each state and the means to reduce (or increase) their emissions in the first commitment period.

This basically meant that almost all emission reductions had to be by at least 5.2% below 1990 levels and this was to be achieved during the 2008-2012 period.

‘During the Protocol’s first commitment period, each Party was allocated an “assigned amount” (AA) based on the reduction target they had committed themselves to in Annex B. This was also referred to as allowed emissions. The allowed emissions are divided into “assigned amount units (AAU’s).” Article 17 of the Protocol allows member Parties that have emission units to spare to sell this surplus.’⁴⁷ In other words, if a member Party emits under its allowed emissions, this would create a benefit for such Parties and are therefore entitled to profit from such surplus created.

The assigned amount is calculated in the following manner:

(1990 base year emissions) x (individual target in Annex B) x 5 (*i.e.* the number of years in the first commitment period).

For instance, Germany was one of the most successful countries, as being part of the EU, in reaching its Kyoto target during the first commitment period. Germany had an emission reduction target of 21% below 1990 levels. This AA begins as being equal to the AAU’s

⁴⁵ Australia’s Kyoto target is one of only a few in the industrialised world to increase pollution. Australia pushed for a target in Kyoto well short of the emission reduction effort proposed by most industrialised nations. The Government threatened to walk away from the treaty unless its target was accepted. As a result Australia can increase its greenhouse gas emissions 8% above 1990 levels by 2010. Most other industrialised nations committed to targets to reduce their pollution below 1990 levels. See Climate Action Network Australia. Kyoto Protocol Archives. Available at: <http://cana.net.au/international-negotiations/kyoto-protocol-archives>. Accessed on: 7 December 2013.

⁴⁶ See Kyoto Protocol. Article 3(1) (note 43).

⁴⁷ The United Nations Framework Convention on Climate Change. International Emissions Trading. Available at: http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php. Accessed on: 12 January 2014.

issued to each country within the Kyoto Protocol. In other words, in Germany's case, they possessed AAU's equal to their AA. For instance, the moment that a country exceeds its AA (allowed emissions) then a gap would be created between its AA and its AAU's. Such gap would constitute a shortage of AAU's. Conversely, if a country emits below its AA, a gap would also be created between its AA and its AAU's. However, such gap would create a surplus of AAU's. Hypothetically speaking, if Germany had emissions exceeding its target, then there would have been a shortfall of AAU's due to the gap created as explained above. On the other hand, if Germany had emissions below its target, this would have created a surplus of AAU's, which would have been viable for trading.

In other words, an AAU is created the moment emissions are below a Party's target. Conversely, AAU's decrease in numbers the moment emissions exceed a Party's target.

In addition, 'annex I countries that have signed the Protocol are expected to meet their binding greenhouse gas emissions targets via national measures.'⁴⁸ These measures include: 'enhancing energy efficiency, protecting greenhouse gas sinks⁴⁹ and reservoirs, promoting sustainable forms of agriculture, researching new forms of renewable energy, phasing out incentives and tax deductions for all greenhouse gas emitting sectors, encouraging reform in those sectors, as well as generally taking steps to limit and reduce greenhouse gas emissions.'⁵⁰

Furthermore, in order for developed countries to comply with their emission reduction targets, certain mechanisms were put in place so as to assist such countries with compliance. In addition, the reason for such aid was due to the fact that reducing greenhouse gas emissions is a rather expensive exercise and these mechanisms provided the opportunity to reach their targets in different manners. Nevertheless, these mechanisms were only supplementary to their greenhouse gas emission reductions. In other words, developed countries could not take advantage of these mechanisms and comply with reductions only be relying on these mechanisms.

These mechanisms, also termed the 'Kyoto Mechanisms' or 'Flexibility Mechanisms', allowed Annex I countries to reduce their emissions by financing the reduction of emission in other countries. The Protocol provides for three flexible mechanisms: Joint Implementation

⁴⁸ See Kyoto Protocol. Article 2(1) (a). (note 43).

⁴⁹ The term 'sinks' will be explained in greater detail below.

⁵⁰ *Ibid.*

(JI), Clean Development Mechanisms (CDM's) and Emissions Trading (ET). These mechanisms will be firstly described and thereafter analysed below:

1. Joint Implementation can be located in Article 6⁵¹ of the Protocol:

This allows Annex I nations to invest in specific emission reduction projects in other Annex I nations. These projects can either reduce emissions of greenhouse gases or increase the removal of greenhouse gases through sinks.⁵² The investing nation can then set-off their own emission levels with the emission reductions gained in the host nation. Emission reductions are measured in emission reduction units (ERU's).

There are, however, preconditions to the use of the JI mechanism:

- Both states must be Party to the Protocol and there must be express approval of the project both by the transferor and transferee state⁵³;
- The reduction as a result of the project must be additional that which would have occurred otherwise⁵⁴;
- The state attempting to acquire ERU's must itself be in compliance with a certain number of Protocol obligations (Articles 5 and 7)⁵⁵ and;
- The use of the JI mechanism cannot be a substitute for domestic action in the investing state, it can only be supplementary⁵⁶.

As it can be seen from this particular mechanism, the main purpose of JI was to allow Annex I and Annex II member Parties to ultimately reduce the carbon dioxide concentration in the atmosphere, without actually reducing their own greenhouse gas emissions. In other words,

⁵¹ See Kyoto Protocol. Article 6 (note 43).

⁵² Article 12 of the Kyoto Protocol. Land Use, Land-Use Change and Forestry (LULUCF) activities are usually referred to as 'carbon sinks'. These are processes whereby carbon is captured and stored by way of photosynthesis, such as reforestation, afforestation, forest management and the prevention of deforestation. These activities can be utilised within Annex I countries themselves, the country earning removal units (RMU's) LULUCF processes may also be incorporated within a JI programme or a CDM programme. The oceans and forests act as natural carbon sinks, absorbing much of the atmosphere's carbon, they have thus already soaked up much excess carbon, mitigating the greenhouse effect to date. However, with greater amounts of carbon being spewed into the air and on-going global deforestation, the capacity of these carbon sinks has been greatly diminished. See Rumsey & King (note 4) at 1052.

⁵³ Article 6(1) (a).

⁵⁴ Article 6(1) (b).

⁵⁵ Article 6(1) (c).

⁵⁶ Article 6(1) (d).

Annex I countries were able to reach their targets by reducing greenhouse gas emission in other Annex I countries.

2. Clean Development Mechanisms can be located in Article 12⁵⁷ of the Protocol:

This allows Annex I states to generate reductions of their own emission levels through projects undertaken in non-Annex I states. The Clean Development Mechanism operates in a similar way to the JI, only it allows Annex I states to benefit from investing in emission reduction projects in developing countries, rather than fellow Annex I countries. The reduction of emissions is measured in Certified Emission Reductions (CER's).

Since addressing climate change has become a rather expensive exercise, Annex I Parties have come to the realization that 'it is cheaper to achieve emissions reductions in developing countries.'⁵⁸ For instance, 'the average cost of achieving emission reductions in developing countries is less than US\$ 3 per ton of carbon dioxide, while the average cost of attaining similar reductions in developed countries is estimated to be around US\$ 15 per tonne of carbon dioxide.'⁵⁹ Therefore, if one carefully dissects such ideology, it would become evident that the focus is taken off of emission reductions taking place in developed countries themselves, and it is shifted towards what they can do to reduce greenhouse gas emissions in developing countries.

Nevertheless, it seems that once again the economic considerations of the Protocol regarding the costs of reducing greenhouse gas emissions have resurfaced. In other words, the author is of the view that Parties have their priorities mistaken. If the Protocol is to ever be a success, then the principal issue should be the environment and secondly it's financial aspect. The rationale here is that if parties negotiate an international legal instrument by firstly taking into account how much it will cost their economies, then the main environmental purpose has already been abandoned.

⁵⁷ Article 12(2) of the Kyoto Protocol sets out the objective of CDM's: 'To assist Parties not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist parties included in Annex I in achieving compliance with their...commitments under Article 3.' See Kyoto Protocol. Article 12 (2) (note 43).

⁵⁸ Hey, E. 'Sustainable development, normative development and the legitimacy of decision-making.' Netherlands Yearbook of International Law, (2003), 3 at 36.

⁵⁹ *Ibid.*

3. Emissions Trading can be located in Article 17⁶⁰ of the Protocol:

As stated above, Article 17 provides that if a Party has a surplus of AAU's, that Party may sell the surplus to another Party who has used up or is close to using up all their AAU's. Bearing in mind that if a Party meets its emission reduction target and continues to decrease emissions, then such Party would have extra or a 'surplus' of AAU's. On the other hand, if a Party exceeds its allowed emissions, in other words it increases its greenhouse gas emissions; this would result in a shortage of AAU's. Due to this shortage of AAU's, such Party can partly comply and meet its emission reduction target by either reducing its emissions or by purchasing AAU's from other Parties which have a surplus.

The Conference of the Parties in 2005 adopted certain modalities, rules and guidelines in respect of emissions trading. As a result, it is not only AAU's that may be traded, but also other 'Kyoto units'. The units that may be traded include:

- A 'removal unit' (RMU) on the basis of land use, land-use change and forestry activities such as reforestation;
- An 'emission reduction unit' (ERU), generated by a JI project and;
- A 'certified emission reduction unit' (CER) generated from a CDM project activity.

However, as stated above, the use of these trading mechanisms must be additional to the Party's domestic emission reducing activities. Therefore, a party cannot fully rely on emissions trading in order to meet its Kyoto emissions target. The reason for this is to avoid abuse of the flexible mechanisms. Abuse can take the form of over-reliance on the use of the mechanisms and not actually reducing their greenhouse gases. In other words, Parties should avoid being too involved in trading in the 'carbon market' since the benefits from selling and purchasing carbon units do not mean full compliance with their emission reduction targets.

Fortunately, in order to prevent a party from overselling its Kyoto units, it is required that each Party maintains what is known as a 'commitment period reserve.'⁶¹ In terms of this, a trading Party is required to keep at minimum of 90% of its units in reserve.

⁶⁰ See Kyoto Protocol. Article 17 (note 43).

⁶¹ In order to address the concern that Parties could "oversell" units, and subsequently be unable to meet their own emission targets, each Party is required to maintain a reserve of ERU's, CER's, AAU's and/or RMU's in its national registry. This reserve, known as the 'commitment period reserve', should not drop below 90 per cent of the Party's assigned amount or 100 per cent of five times its most recently reviewed inventory, whichever is lowest. See United Nations Framework Convention on Climate Change. International Emissions Trading.

2.2.1 First Commitment Period

One of the most controversial aspects about the Kyoto Protocol and its first commitment period has been the actual role played by developed countries without greenhouse gas emission reduction targets such as the United States of America. Also, the role played by major greenhouse gas emitters from the developing world⁶² namely China and India.

The Kyoto Protocol and its founding framework Convention⁶³ differentiated between member Parties by using the principle of CBDR's. Such division between the developed and developing world gave rise to disagreements and a visible tension which developed countries have had to endure during the negotiations which led to the adoption of the current climate change regime.

As stated previously, the principle of CBDR's derives from the premise that developed countries have contributed more to climate change and also possess greater resources to address the problem.⁶⁴ In addition, developing countries have not been emitting greenhouse gases for as long as developed countries have, reason why their economies are not as developed as the ones from developed states.⁶⁵

Regarding the role played (or lack thereof) from the United States, it became trite that it had no intention of being bound by the Kyoto Protocol for as long as no emission reduction targets were imposed on developing countries. 'The United States signed the Protocol, however, the Clinton Administration did not submit the Protocol to the Senate for advice and consent'⁶⁶ resulting in a lack of ratification of the Kyoto Protocol from the United States.

The United States has throughout the years of negotiations taken an inflexible position regarding positive participation within the Kyoto Protocol. The United States has stated that

Available at: http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php. Accessed on: 7 December 2013.

⁶² See United Nations Framework Convention on Climate Change. Parties and Observers. Available at: http://unfccc.int/parties_and_observers/items/2704.php. Accessed on: 7 December 2013.

⁶³ Essential Background: Kyoto Protocol. Available at: http://unfccc.int/kyoto_protocol/items/2830.php. Accessed on: 1 November 2013.

⁶⁴ Halvorssen, A. M. Common but Differentiated Commitments in the Future Climate Change Regime. Amending the Kyoto Protocol to Include Annex C and the Annex C Mitigation Fund. *18 Colo. J. International Environmental Law & Policy*, (2007), 247 at 254-255.

⁶⁵ *Ibid.*

⁶⁶ Senate acknowledged that one condition outlined by Senate Resolution 98, passed in mid-1997 that meaningful participation by developing countries in binding commitments limiting greenhouse gases had not been met. See The Encyclopaedia of Earth. The Kyoto Protocol and the United States. Available at: <http://www.eoearth.org/view/article/154065/>. 2013. Accessed on: 7 December 2013.

‘meaningful participation’⁶⁷ from developing countries was required before they commit themselves to greenhouse gas emission reduction targets under the Kyoto Protocol.

Interestingly, even though the United States has not ratified the Protocol nor is bound by international emission reduction targets, it has managed to reduce its emissions by implementing domestic measures. ‘The U.S. has reduced its CO₂ emissions 12.1% below its 2007 peak high and has, by far, reduced CO₂ more than any other large industrialized nation and in 2012, the United States became the first major industrialized nation in the world to meet the United Nation’s original Kyoto Protocol 2012 target for CO₂ reductions.’⁶⁸ This clearly shows that the United States has the resources to implement domestic measures in order to reduce their emissions to acceptable levels. The dilemma is however, gathering efforts to ensure that the United States ratifies the Protocol to ensure that it continues to reduce its emissions through an international climate change regime.

On the other hand, ‘to date, none of the largest developing countries, such as China, India or Brazil, have shown a willingness to make commitments to reducing greenhouse gas emissions’⁶⁹ in terms of a legally binding international instrument.

The focus must now be placed on the developed countries which were bound by greenhouse gas emission reduction targets. The author is of the view that in order to properly analyse the Kyoto Protocol’s efficacy, one must firstly look at whether countries which were bound by emission reduction targets actually met those targets.

One of the successes within the Kyoto Protocol’s first commitment period has been the performance displayed by Germany in reducing their greenhouse gas emissions and thereby meeting its target. ‘Germany met the emission targets for the 2008 to 2012 period under the Kyoto Protocol already in 2008.’⁷⁰

The majority of developed EU member countries have reached their emission reduction targets thereby positively contributing to the fight in curbing global greenhouse gas emissions. ‘According to European Environment Agency’s estimates, the largest relative

⁶⁷ *Ibid.*

⁶⁸ U.S. Meets Kyoto CO₂ Standard. Available at: <http://informthepundits.wordpress.com/2013/04/05/u-s-meets-2012-kyoto-co2-standard/>. 2013. Accessed on: 7 December 2013.

⁶⁹ At COP 4 in Buenos Aires, Argentina, host country of the meeting, became the first developing country to indicate that it will make a commitment to take on a binding emissions target for the period 2008-2012. Kazakhstan also announced its intention to take similar action. See Halvorssen (note 64).

⁷⁰ Lang, M & Mutschler, U. German Energy Blog. Germany Met 2012 Kyoto Protocol Target in 2008. Available at: <http://www.germanenergyblog.de/?p=1710>. 2010. Accessed on: 6 December 2013.

emissions decreases from 2010 to 2011 were registered in countries with small to medium shares of total EU greenhouse gas emissions: 13 % in Cyprus followed by 8 % in Belgium, Finland and Denmark.⁷¹

On the other hand, a few countries with economies in transition did not perform as positively as other developed countries.⁷² For instance, ‘nine EU member states increased emissions between 2010 and 2011: Bulgaria increased emissions by 11 %, while Lithuania increased by 3 % and Romanian emissions rose by 2 %.’⁷³

Regarding developing countries which are member Parties to the UNFCCC and the Kyoto Protocol, but which certainly do not have compulsory emission reduction targets, India is currently the third largest greenhouse gas emitter in the world and it accounts for 6% of all global emissions. This makes India a crucial player in the global greenhouse gas emissions arena. ‘Despite the fact that India, like China, refuses to engage in emissions cuts through international binding agreements, the country is said to adopt an innovative market-based scheme (PAT) as part of the National Action Plan for Climate Change, to promote energy efficiency, based on certificates for meeting energy efficiency targets and allowing for their trading.’⁷⁴

As it can be deduced from the above-mentioned description of the Kyoto Protocol and its first commitment period, there are loopholes in such climate change regime which require further clarification. A great degree of frustration has been evident from the developed as well as the developing world regarding the efficiency of the Protocol. Up until 2011, there was not a clear vision regarding what type of legal instrument or answer would best address climate change.

⁷¹ See European Environment Agency EU greenhouse gases in 2011: more countries on track to meet Kyoto targets, emissions falls 2.5%. Available at: <http://www.eea.europa.eu/media/newsreleases/eu-greenhouse-gases-in-2011.5>. 2012. Accessed on: 7 December 2013.

⁷² Several EU countries did not meet their targets. Such countries were as follows: Luxembourg, Austria, Spain, Italy, the Netherlands and Ireland. However, in 2011 a number of EU countries over-achieved their targets. Such countries were as follows: ‘Portugal, Greece, Ireland, Finland, France, Belgium, Sweden, the UK and Germany.’ See Haita, C. International Centre for Climate Governance. The State of Compliance of the Kyoto Protocol. Available at: http://www.iccgov.org/FilePagineStatiche/Files/Publications/Reflections/12_Reflection_December_2012.pdf. 2012. Accessed on: 6 December 2013.

⁷³ *Ibid.*

⁷⁴ See Haita (note 72).

However, in 2011, at COP 17⁷⁵ which was held in Durban, South Africa, yet a second commitment period was agreed. Nevertheless, it took yet another year at COP 18⁷⁶ in Doha, Qatar, in 2012, where the only solution to keep the Kyoto Protocol alive was to effect an amendment and extend its reign with yet another commitment period. Such second commitment period was adopted as it commenced on 1 January 2013 and will conclude on 31 December 2020.

Even though this might seem as a possible answer to address climate change, the reality is rather different. There has been an international impasse in recent years, primarily because the major player not a party to the Kyoto Protocol and, until recently, the biggest contributor to climate change, the United States of America, is reluctant to enter into any agreement containing binding emissions reduction targets unless other major emitters in the developing world, such as China and India, are also subject to binding targets. Developing countries, on the other hand, are invoking the principle of CBDR's in arguing that the major contributors to climate change in the past were the developed countries and, moreover, were they to be bound to mandatory emissions reduction targets, their economic growth would be stifled.⁷⁷

Lastly, in order to obtain an educated understanding of the accomplishments of the Kyoto Protocol's first commitment period, an analysis of its weaknesses and shortfalls is crucial. This is due to the fact that it must always be acknowledged that any international legal instrument is as strong as its weaknesses are. An analysis of the shortcomings of the first commitment period which symbolises the obstacles left for the second commitment period to overcome will be described in the next chapter below.

⁷⁵Final decision adopted by the Conference of the Parties. Available at: <http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf>. Accessed on: 7 December 2013.

⁷⁶ United Nations Framework Convention on Climate Change. Doha Climate Change Conference, Decisions. Available at: <http://unfccc.int/resource/docs/2012/cmp8/eng/13a01.pdf>. Accessed on: 7 December 2013.

⁷⁷ Bodansky, D. 'The Copenhagen Climate Change Conference: A postmortem' (2010), 104. *American Journal of International Law* at 230.

Chapter 3

Analysis of the legal regime up to 2012

The Kyoto Protocol's first commitment period which ended on 31 December 2012, can be regarded as an international instrument and an era which did indeed attempt to reduce greenhouse gas emissions. The author has elected to make use of the word 'attempt' due to the fact that even though it was the first climate change regime with emission reduction targets, the results which were obtained from it were rather weak and insignificant.

In the eyes of many, the Kyoto Protocol's first commitment period has been described as a mixture of positive and negative accomplishments. This is due to the fact that while it became apparent that its intention to reduce greenhouse gas emissions was a strength within the Protocol, its actual imposed emission reduction targets and market-based mechanisms were not making a significant contribution in curbing global climate change. This meant that 'this' Protocol would not answer global climate change.⁷⁸

⁷⁸ Barker, T. Summary for Policymakers, in *Climate Change 2007: Mitigation of Climate Change: Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Available at: <http://ipcc.ch/pdf/assessment-report/ar4wg3/ar4-wg3-spm.pdf>. 2007. Accessed on: 9 December 2013, at 21.

Global climate change is an environmental problem which must be addressed at both national as well as at an international level. This means that states which are Parties to the Protocol and have emission reduction targets, must implement domestic measures within their states so as to give effect to the legally binding provisions of the international instrument. In addition, at an international level, cooperation from member Parties to the UNFCCC and the Protocol must be of such a nature that visible benefits take place. In other words, if one takes into account that the Kyoto Protocol only addresses climate change through the cooperation of the developed world, and thereby not requiring the considerable input from the developing world, of which the largest emitter of greenhouse gases is part, success is unlikely.

For instance, ‘China and India are becoming important players in the global GHG arena, the CO₂ emissions in these countries increased by 9% and 6% respectively in 2011, relative to the previous year.’⁷⁹

In addition, China is the largest greenhouse gas emitter in the world contributing to approximately 23% of all global emissions, while India contributes to 6% of all global emissions. In other words, by combining two developing countries which are not subjected to legally binding emission reduction targets, the Kyoto Protocol is already neglecting approximately 29% of all global emissions. This statistic is staggering taking into account that at the moment only 15% of all global emissions are being addressed through the Kyoto Protocol. The author is of the view that the principle of CBDR’s is clearly a shield for developing countries which is embraced by both the UNFCCC and the Kyoto Protocol without realizing that only two developing countries are currently emitting almost twice as much greenhouse gases as what 37 industrialized countries can manage to reduce.

Even though the UNFCCC refers to the principle of CBDR’s, it must be acknowledged that if success is to be obtained in the arena of climate change, worldwide cooperation is crucial. Bearing in mind that 15% of all global emissions are being reduced in terms of the Kyoto Protocol, means that the remaining 85% can be attributed to the United States of America,

⁷⁹ China currently emits 4% more greenhouse gases than the United States. See Haita, C. International Centre for Climate Governance. The State of Compliance of the Kyoto Protocol. Available at: http://www.iccgov.org/FilePagineStatiche/Files/Publications/Reflections/12_Reflection_December_2012.pdf. 2012. Accessed on: 7 December 2013.

China, India, Brazil, South Korea, South Africa, the remaining developing nations and by Earth's natural emissions.⁸⁰

This clearly depicts that while a differentiation must be made between developed and developing countries, their legally binding cooperation is crucial in addressing climate change. The hope for the on-going second commitment period is that all of the shortfalls of the first commitment period would have been addressed so as to allow a positive transition from the first period onto the second period.

Furthermore, one of the main criticisms is located in the area of the 'Kyoto Mechanisms', particularly emissions trading. It has been established that these mechanisms promote a 'business as usual' approach. In other words, it became apparent that while emissions trading was intended to assist member Parties in reaching their emission reduction targets, it actually became a business of making as much profit as possible out of the Kyoto Protocol's market-based mechanism. It can be stated that the main objective of such mechanism failed in the pursuit of profit from developed countries and countries with economies in transition.

It has become evident that Annex I countries are able to obtain cheap achievement of their targets through emissions trading rather than investing in long term projects aimed at developing renewable sources of energy. Due to this, emissions trading has played a rather 'villain' role when the resources spent in purchasing carbon credits could have been utilized in implementing renewable sources of energy. This shows the lack of commitment from the developed world. One of the reasons attributed to this can be speculated to be the fact that even though the developed world is taking emission reduction commitments under the first and now the second commitment period⁸¹ they know that global climate change is literally unstoppable and since their reductions only amount to approximately 15% of all global emissions, they might as well make profits from such climate change regime. It seems as if no matter what catastrophic consequences society might continue to face, economic stability and economic considerations seem to be the main items on the developed world's agenda.

⁸⁰ 'Plants sequester carbon dioxide from the atmosphere as they grow, through the process of photosynthesis. While a forest, for example, is actively growing and sequestering carbon the system is termed a carbon sink.' However, it must be noted that when plants or trees are burnt or die, the carbon which had been previously sequestered is released back into the atmosphere. This clearly indicates the need to ensure that afforestation efforts increase. See Understanding Climate Change. Land based carbon. Available at: <http://www.climatechange.vic.gov.au/greenhouse-gas-emissions/land-based-carbon-level>. 2013. Accessed on: 9 December 2013.

⁸¹ The Kyoto Protocol's second commitment period will be described and analysed in detail in the following chapter.

In addition, the author is of the view that emissions trading between developed countries and countries with economies in transition is only limited by the fact that a ‘commitment period reserve’ of 90% of units must be present at all times. This means that the only form of protection against abuse is the ‘commitment period reserve’ which makes the trading of units dangerous and the Protocol vulnerable.

However, one of the possible suggestions so as to make emission trading more efficient would be to use the proceeds of such transactions to invest in long term solutions to address climate change. For instance, to develop programmes to begin using renewable sources of energy in order to reduce the over-reliance of fossil fuel burning to create energy. A clear example of this would be China and South Africa. Even though both these developing countries are not bound by emission reduction targets, and are not part of the ‘carbon market’, if in the future they were to be bound by greenhouse gas emission reduction targets, they would be rather important buyers of carbon units which they would utilize to partly comply with their emission reduction targets.

Furthermore, the Protocol makes provision for Land Use, Land Use Change and Forestry (LULUCF) measures, and the reduction units they occasion, has been subject to much criticism. Firstly, ‘it is by no means an easy or accurate task to project what carbon emissions the land would have produced had the carbon sink not been created, which is necessary to determine how many RMU’s of CER’s are allocated to a project.’⁸² This is critical due to the fact that even though mechanisms are put in place to reduce carbon dioxide emissions as much as possible, lack of clarity is evident without which, such provisions under the LULUCF become rather difficult to interpret and implement.

The rationale here is that it has become trite that ‘carbon dioxide emissions take place whenever there is a disturbance in land, such as land-use changes. However, to measure how much carbon dioxide would be naturally emitted by the soil is a difficult measurement to take.’⁸³ Nevertheless, the importance here is that carbon sink projects must continue to be implemented in order to sequester as much carbon dioxide as possible from the atmosphere. Even though, such sinks are a temporary solution, they buy developed nations time until more long term solutions can be implemented, such as the implementation of clean and renewable sources of energy.

⁸² Nature. Soil emitting more carbon dioxide. Available at: <http://www.nature.com/news/2010/100324/full/news.2010.147.html>. Accessed on: 10 January 2014.

⁸³ *Ibid.*

Unfortunately, only reforestation and afforestation methods can be used within a CDM programme. ‘This is problematic in that deforestation is the second largest source of greenhouse gas emissions in developing countries.’⁸⁴ As such, the prevention of deforestation should earn CER’s within a CDM programme. Also, another problem evident in both afforestation and deforestation is that the soil is also a carbon sink, meaning that every time the soil is worked, carbon dioxide is emitted into the atmosphere. This is an unfortunate event, but if carbon dioxide is to be emitted in any event, it should take place during afforestation rather than during deforestation.

Other criticisms relating to the use of ‘carbon sinks include the fact that they only offer a temporary solution, as the carbon trapped in trees is eventually released back into the atmosphere (if the tree is burnt or dies).’⁸⁵ In contrast, carbon emissions are avoided for longer periods of time through the use of a more efficient process (such as solar power).

In other words, the Kyoto Protocol does provide for manners in which emission reduction targets may be achieved, however, such alternatives are not specified as clearly as they should have been which render the overall market-based mechanisms rather weak and heavily criticised.

Furthermore, a highly important fact within the Kyoto Protocol emissions reduction system is its actual emission reduction targets. Scientific evidence indicates that by reducing greenhouse gases by 5, 2% below 1990 levels will not have a significant impact in curbing climate change.⁸⁶ Even though this was an important initial step in the war against climate change, surely much more is needed in order to achieve a higher degree of success in the future. Higher levels of ambition are required in order to obtain more success within the Protocol.

In addition, the fact that developing countries are not bound by the Protocol, can be stated to be one of the most important factors as to why the Protocol has not succeeded in its first commitment period as much as it was hoped for. China is regarded as a developing country in terms of the Protocol, but it is the largest greenhouse gas emitter in the world, with the United

⁸⁴ Nature Geoscience. CO2 emissions from forest loss. Available at: <http://www.nature.com/ngeo/journal/v2/n11/abs/ngeo671.html>. Accessed on: 10 January 2014.

⁸⁵ Only Zero Carbon. Carbon Feedbacks. Available at: http://www.onlyzerocarbon.org/arctic_feedback.html. Accessed on: 10 January 2014.

⁸⁶ Exploring Climate Change. The Kyoto Protocol. Available at: <http://www.educationscotland.gov.uk/exploringclimatechange/response/kyotoprotocol.asp>. Accessed on: 9 December 2013.

States of America in second place (19%) and India in third. In other words, two out of the top three biggest greenhouse gas emitters on the world, are developing countries. Therefore, gains made by developed countries under the Protocol could be partially offset by China's and India's increasing emissions.

Of utmost importance in analysing the first commitment period's lack of success, is the role 'played' by the United States. The author had opted to make use of the word 'played' due to the fact that the United States never played any role in the Kyoto Protocol's first commitment period. In fact, they failed to ratify the Kyoto Protocol, which seriously compromised the effectiveness of the legal regime altogether. Bearing in mind that the US is the second largest greenhouse gas emitter in the world, without the cooperation of such a large emitter, increasing reduction targets in the future may not be feasible.

In addition, the United States is also one of the strongest economies in the world, meaning that they have the resources to effectively implement emission reduction mechanisms under the Protocol. The overall success of the Ozone regime created by the Vienna Convention and implemented by its Montreal Protocol was largely due to the input and support of the United States, indicating the necessity of obtaining their cooperation.⁸⁷

Even though the success obtained from the Montreal Protocol was attributed to the fact that the world did not need certain Ozone Depleting Substance (ODS's), and by their discontinued use, it rendered the Protocol one of the most successful MEA's of all time, the principle which must be captured in the climate change arena is that alternatives must be implemented so as to reduce greenhouse gas emissions. Higher emission reduction targets must be imposed, cooperation from China, the United States and India is crucial, afforestation is also important, investing the profits made from emissions trading on long term climate change solutions. Renewable sources of energy are key; the continued over-reliance on the burning of fossil fuels is what must be discontinued as soon as possible. All these observations are what the international community must aim to achieve, and such success will only arrive once the environment becomes the principal priority.

Lastly, the extent to which Parties met their Kyoto targets under the first commitment period is an aspect of paramount importance which is worth discussing. Bearing in mind that 37

⁸⁷ Tiezzi, S. The Diplomat. The US and China Play Chicken over Climate Change. Available at: <http://thediplomat.com/2013/11/the-us-and-china-play-chicken-over-climate-change/>. 2013. Accessed on: 9 December 2013.

industrialised countries took on commitments under the Kyoto Protocol, and that 28⁸⁸ out of those 37 countries are part of the EU, means that the EU plays a crucial role in greenhouse gas emissions under the Kyoto Protocol.

Regarding the extent to which targets were achieved, the EU would be ideal as an example since it constitutes the majority of Parties with commitments under the Protocol.

‘While the EU’s GDP grew by 45% between 1990 and 2011, total emissions from the 28 member states, including emissions from international aviation, were 16.9% below 1990 levels in 2011 and an estimated 18% below 1990 in 2012. The Commission’s annual progress report on EU greenhouse gas emissions shows that the 15 EU member states at the time the Kyoto Protocol was ratified have over-achieved their joint reduction commitment for the first period of the Protocol.’⁸⁹

As it can be seen from the above facts, the extent to which Parties met their targets under the Kyoto Protocol’s first commitment period can be said to have been a success within the EU. Nevertheless, even though over-achievement was evident within the EU, the same attitude and example must be followed by the rest of member Parties to the Protocol taking on emission reduction targets under the second commitment period.

In any event, the positive performance displayed by the EU member states, can still be regarded as fragile as such over-achievements can be offset by the lack of participation and continued over-reliance on fossil fuel burning by the developed world. The second commitment period will have a rather difficult task in overcoming the problems faced during the first commitment period. An in-depth analysis of the legal issues which member Parties had to agree in order to create the second commitment period will be explained in the following chapter.

⁸⁸ 15 EU member countries took on emission reduction targets at the time the Kyoto Protocol was adopted in 1997. Since the adoption of the Protocol a further 13 countries have joined the European Union. In other words, 28 countries are now part of it. Of the 13 countries which joined the EU, all took on emission reduction targets except Cyprus and Malta. See European Commission. Climate Action. Available at: http://ec.europa.eu/clima/policies/g-gas/index_en.htm. 2014. Accessed on: 12 January 2014.

⁸⁹ European Commission. Climate Action. Available at: http://ec.europa.eu/clima/news/articles/news_2013100901_en.htm. 2013. Accessed on: 12 January 2014.

Chapter 4

The Kyoto Protocol's Second Commitment Period (2013-2020)

4.1 Objectives

As stipulated above, one of the most heavily debated issues surrounding climate change has been the uncertain future of the Kyoto Protocol. As it has been analysed above, the first commitment period came to an end on 31 December 2012, and rather convoluted negotiations developed regarding the post-2012 period.

Initially, it was only in 2007 at COP 13 held in Bali, Indonesia, that Parties to the framework Convention realized that the first commitment period would conclude in December 2012 without a replacement to take over post-2012.⁹⁰ However, it was only in 2011, at COP 17 held in Durban, South Africa, that a second commitment period which was to address climate change was agreed.⁹¹ In any event, there was much debate around how a second commitment period would be adopted and put into operation when the Kyoto Protocol only provided for the first commitment period. Therefore, an extension of the Protocol seemed as the more realistic option within the time frame that member Parties possessed.

Fortunately, all the uncertainties regarding how a second commitment period would be accommodated were put to rest when in 2012, at COP 18 held in Doha, Qatar, an amendment to the Kyoto Protocol was finally adopted and it extended the existence of the Protocol from 1 January 2013 until 31 December 2020.⁹²

The transition from one commitment period onto the other might have seemed a simple and expeditious affair. However, as it was explained above, the process of adopting any international instrument is a highly difficult process, which firstly requires the signature of the member Parties for it to be adopted and thereafter the ratification of such Parties for it to come into force. In addition and most importantly, a number of legal issues have had to be dealt with in order to establish the second commitment period. Such legal issues will be analysed below.

Regarding the amendment to the Protocol which was finally adopted at the Doha Climate Change Conference in 2012, this took place in a rather pressurized and tense environment. This is due to the fact that at the time the conference was being held, there was an immense amount of pressure on the Parties to adopt the amendment because a climate change regime was needed to be in place and be operational from 1 January 2013. In other words, it seemed clear that Parties could not afford to fail as they did in Copenhagen in 2009 at COP 15 when the COP only ‘took note of’ the rather political agreement.⁹³ If one assesses the failures of the

⁹⁰ UNEP. *International Environmental Law-making and Diplomacy Review 2010*. 2011. Editorial Preface.

⁹¹ See United Nations Framework Convention on Climate change. Durban Climate Change Conference. Final Decision (note 75).

⁹² See United Nations Framework Convention on Climate Change. Doha Climate Change Conference Decisions (note 76).

⁹³ United Nations Framework Convention on Climate Change. Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009. Available at: <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>. 2010. Accessed on: 9 December 2013.

past, it would seem clear that failure was not an option if the Kyoto Protocol was to stay in existence.

In addition, during the closing negotiations at Doha, it became apparent that the Russian Federation, Ukraine and Belarus were not pleased with the text which was to be adopted to give the second commitment period life. Due to this, the Russian Federation decided to raise its flag in objection to a second commitment period, yet the President of the conference ignored its objection and only 'noted' that the Russian Federation had indeed an objection.⁹⁴ This was a clear sign that the conference could not fail and that consensus⁹⁵ between all the member Parties was crucial.⁹⁶ This leads the author to believe that as of December 2012, the only available climate change regime which the world at large depended on was an extension of the already weak Kyoto Protocol which coming into 2013 did not create much positive expectation.

Nevertheless, at the end⁹⁷ of the conference, the amendment was adopted and the second commitment period was born.⁹⁸ However, one of the main issues regarding the Protocol's continued existence now rested on how it would legally operate from 1 January 2013.

⁹⁴ Russia objected to what he said was a breach of procedure by the President. This action on the part of the COP President brought back echoes of the events of Cancun when Bolivia's objections to the adoption of the Cancun Agreement were overruled/ignored in much the same way. It also made many wonder whether this was becoming a trend in the climate negotiations; as many have repeated; consensus does not mean the right of one party to block progress. See Earth Negotiations Bulletin. Summary of the Doha Climate Change Conference. Vol 12, No 567. Available at: <http://www.iisd.ca/vol12/enb12567e.html>. 2012. Accessed on: 13 January 2014.

⁹⁵ Consensus has been defined as 'a general agreement.' See Oxford Dictionary. Definition of Consensus in English. Available at: <http://www.oxforddictionaries.com/definition/english/consensus>. Accessed on: 9 December 2013.

⁹⁶ Consensus is a political rather than a legal concept. Consensus does not require full agreement, as consensus can be said to exist even where there are abstentions. See Sohn, L.B. United National Decision-Making: Confrontation or Consensus? 1 *Harvard International Law Journal* (1974) at 438.

⁹⁷ Doha managed to keep the Kyoto Protocol in existence through a second commitment period in order to avoid having a gap until a new legal regime is finally adopted and put into force in 2020. In other words, the amendment to the Protocol which lasts until 2020, serves as a temporary measure until the new legal regime is put in place. See Commodities Now. Available at: <http://www.commodities-now.com/reports/environmentalmarkets/13364-doha-provides-gateway-to-a-2015-global-agreement.html>. 2012. Accessed on: 12 December 2013.

⁹⁸ 'Doha needed to ensure that: there is agreement on an amendment to the Kyoto Protocol; there is an effective review of the long-term goal of staying below 2° C; and there is a firm foundation laid for a long-term framework that is applicable to all, equitably instituted and responsive to science.' See Wilder, M, Curnow, P, Saines, R, M, Stuart, G, J, Ruanova Guinea, F, M, Millar, I. Lexology. Kyoto Protocol Extended at COP 18. Available at: <http://www.lexology.com/library/detail.aspx?g=6f81b741-500d-4a01-8f8d-3f80e59f9db3>. 2012. Accessed on: 13 November 2013.

The main objective to be achieved in this chapter is to give the reader a complete and thorough view of the changes which have taken place between the first and the second commitment periods. These changes will be addressed so as to clearly depict the strengths and weaknesses of the current commitment period. In other words, by the end of this crucial chapter, one would have a clear understanding of the legal issues which have had to be dealt with in the establishment of the second commitment period. This analysis will provide a link to further understand the positives and negatives which such second commitment period is and will continue to reflect.

Firstly, a number of amendments have taken place between the first and the second commitment periods, but for the purposes of this thesis, the most crucial changes in the Kyoto Protocol which have been carried over to the second commitment period will be firstly described and secondly analysed. The main purpose of this will be to show how different and how much more efficient the Parties to the Protocol have ‘tried’⁹⁹ to make the second commitment period.

One of the most evident differences between the first commitment period which heavily reflects in the second commitment period is the change in membership which has taken place. The following is an explanation of how the Protocol’s membership has been significantly weakened, thereby exposing it to further struggles in the quest to reduce greenhouse gas emissions in accordance with each Party’s emission reduction target. Regarding Annex B of the Kyoto Protocol, the following Annex I countries under the Protocol’s first commitment period are no longer part of the current period:

1. ‘On 15 December 2011, Canada withdrew from the Kyoto Protocol.’¹⁰⁰
2. ‘On 10 December 2010, Japan indicated that it did not have any intention of continuing under the second commitment period.’¹⁰¹
3. ‘New Zealand has also decided to not be part of the second commitment period.’¹⁰²

⁹⁹ Even though the member Parties had agreed on the second commitment period, yet it can only be hoped that the shortcomings and failures experienced during the first commitment period are rectified and not repeated in the second.

¹⁰⁰ The United Nations Framework Convention on Climate Change. Doha Amendment. Available at: http://unfccc.int/kyoto_protocol/doha_amendment/items/7362.php. 2013. Accessed on: 19 July 2013.

¹⁰¹ *Ibid.*

¹⁰² See The United Nations Framework Convention on Climate Change. Doha Amendment (note 100).

4. 'On 8 December 2010 the Russian Federation, communicated that is did not intend to continue under the second commitment period.'¹⁰³

The author is of the view that in order to assess damage control regarding the departure of such parties from the Protocol, it would be of paramount importance to analyse how crucial their participation (in terms of greenhouse gas emissions) was in the first commitment period. For instance, Canada and Japan had under the first commitment period, emission reduction targets of 6% respectively below 1990 levels, whereas New Zealand and the Russian Federation had 0% emission reductions below 1990 levels. The most evident problem which comes to mind is that the Kyoto Protocol was already weak in terms of its membership. In other words, without the participation from the United States, and the exclusion of developing countries, such as China and India, meant that further reduction in participation from states was not ideal. Consequently, the last possible thing the second commitment period needed was a shortage of membership, especially from the above-mentioned four countries which contributed in total to approximately 12%¹⁰⁴ of all global greenhouse gas emissions.

Regarding Annex A to the Kyoto Protocol, the following amendments have taken place for the second commitment period:

The list of greenhouse gases has been supplemented with the following gas: Nitrogen trifluoride (NF₃).

'NF₃ has a 100-year global warming potential of 17,200, meaning that it is 17,200 times more powerful than carbon dioxide in trapping atmospheric heat over a 100-year time span, much higher than most other greenhouse gases.'¹⁰⁵

The following amendments have taken place under Article 3 of the Kyoto Protocol:

- Article 3, after paragraph 1: 'The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in the third column of the table contained in Annex B and in

¹⁰³ See The United Nations Framework Convention on Climate Change. Doha Amendment (note 100).

¹⁰⁴ Russia: 6%; Japan: 4 %; Canada: 2% and New Zealand: approximately 0,11%.

¹⁰⁵ Russell, S. World Resources Institute. Nitrogen Trifluoride now required in GHG Protocol Greenhouse Gas Emission Inventories. Available at: <http://www.wri.org/blog/nitrogen-trifluoride-now-required-ghg-protocol-greenhouse-gas-emissions-inventories>. 2013. Accessed on: 9 December 2013.

accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 18 % below 1990 levels in the commitment period 2013 to 2020.¹⁰⁶

This particular amendment can be regarded as the strongest asset which the Kyoto Protocol's second commitment period possesses. The amendment strives to hopefully obtain an average increase in greenhouse gas emission reductions from 5.2% to 18%. This is a massive increase in emission reductions. However, before the author proceeds to congratulate the member Parties to the Protocol for agreeing on such high emission reduction target, one must assess the damage which has been caused by no longer having emission reduction contributions from Japan, the Russian Federation, Canada and New Zealand. In other words, while on paper this might seem as an ambitious target which is hoped to be achieved, it has to be admitted that perhaps such a high emission reduction target was proposed in order to compensate for the lack of contribution from the above-mentioned states which are no longer taking on emission reduction targets.

At the time of writing, the author firmly believes that an increase in emission reduction targets will not succeed over a decrease in the number of member Parties. In other words, the second commitment period is imposing higher targets on the member Parties, thereby running the possible risk that such Parties might withdraw from the Protocol altogether claiming that 'fairness' and 'equity' should also be applied to the developed countries which are left behind to 'take on' the surplus emissions which they are not directly responsible for.

- Article 3, after paragraph 1 bis: 'A Party included in Annex B may propose an adjustment to decrease the percentage inscribed in the third column of Annex B of its quantified emission limitation and reduction commitment inscribed in the third column of the table contained in Annex B. A proposal for such an adjustment shall be communicated to the Parties by the secretariat at least three months before the meeting of the Conference of the Parties serving as the meeting of the Parties to this Protocol at which it is proposed for adoption.'¹⁰⁷

¹⁰⁶ United Nations. Kyoto Protocol to the United Nations Framework Convention on Climate Change. Doha Amendment to the Kyoto Protocol. Adoption of the Amendment to the Protocol. Available at: <https://treaties.un.org/doc/Publication/CN/2012/CN.718.2012-Eng.pdf>. 2012. Accessed on: 18 January 2014.

¹⁰⁷ *Ibid.*

- Article 3, after paragraph 1 ter: ‘An adjustment proposed by a Party included in Annex I to increase the ambition of its quantified emission limitation and reduction commitment in accordance with Article 3, paragraph 1 ter above, shall be considered adopted by the Conference of the Parties serving as the meeting of the Parties to this Protocol unless more than three-fourths of the Parties present and voting object to its adoption. The adopted adjustment shall be communicated by the secretariat to the Depositary, who shall circulate it to all Parties, and shall enter into force on 1 January of the year following the communication by the Depositary. Such adjustment shall be binding upon Parties.’¹⁰⁸

The author has opted to discuss both these amendments together due to the fact that they are largely connected with each other. Given the fact that Article 3, paragraph 1 ter gives member Parties the opportunity to ‘increase’ the percentage inscribed in its quantified emission limitation, and at the same time, Article 3, paragraph 1 bis allows countries to ‘decrease’ the level of ambition requires further analysis. In other words, while it might seem apparent that the amendment does cater for flexibility regarding such high emission reduction targets (if compared to the targets imposed under the first commitment period), the bottom line is that the Kyoto Protocol cannot afford to have a member Party propose an adjustment to ‘decrease’ its emission reduction target. One of the biggest obstacles which the current climate change regime is facing is that global greenhouse gas emissions are not decreasing, they are in fact increasing. Therefore, it is essential that emission reduction targets and ambition levels within the Protocol are increased.

This leads the author to consider that while the Kyoto Protocol’s second commitment period does indeed allow for flexibility within its architecture¹⁰⁹, certain aspect of it must remain rigid if greenhouse gas emissions are to decrease.

Therefore, strict enough emission reduction targets must be imposed on the current member Parties without pushing them to withdraw from the Protocol. In other words, the ideology behind this analysis is that a balance must be struck between stringency and flexibility. The text of the second commitment period must be strict enough so as to make significant contributions in curbing global emissions, yet flexible enough so as to keep member Parties

¹⁰⁸ See United Nations. Kyoto Protocol to the United Nations Framework Convention on Climate Change. Doha Amendment to the Kyoto Protocol. Adoption of the Amendment to the Protocol (note 106).

¹⁰⁹ Bodansky, D. A Tale of Two Architectures: The Once and Future U.N. Climate Change Regime. *Arizona State Law Journal*. 2011. 43. 697 at 1.

content. This balance has not been achieved due to the fact that taking into consideration that four key members are not taking part in emission reductions any longer, the last option should be allowing the remaining Parties to ‘propose reducing the ambition levels.’ If the Kyoto Protocol’s second commitment period is set to improve on the rather weak performance displayed by its older brother, the first commitment period, much more is needed to make a significant contribution in curbing global climate change.

As stated above, one of most challenging problems which the Kyoto Protocol faced in its first commitment period was the trading of AAU’s. It must not be forgotten that the principle behind carbon units trading was to allow member Parties to reach their imposed targets in a more financially viable manner. What the Kyoto Protocol did not foresee was the possible, without mentioning the likelihood that such trading might lead to an abuse of the system. In other words, as explained above, AAU’s could be traded between a member Party which had successfully reached their emission reduction target and due to this, had spare (or a surplus) of AAU’s to sell to member Parties which were struggling to meet their targets.

While this can be described as a flexible mechanism within the Protocol, it nevertheless created an internal business which was prone to possible abuse. This could be achieved by having a surplus of AAU’s, which surplus was obviously anticipated when the Protocol was drafted, reason why they provided for the trading of such carbon units. However, what they did not anticipate was the fact that should member Parties possess such a large surplus of AAU’s, this would result in an over-reliance of selling AAU’s in the pursuit of profit-making. While this is indeed an incentive for Parties to reduce greenhouse gas emission below their targets, it nevertheless brought the Parties’ intention into question. In other words, the primary factor within the Protocol should have been to reduce greenhouse gas emissions in order to combat climate change, and not to seek profits from such reductions. The mentality of the Parties is key in ensuring a successful transition onto the second commitment period. It is indeed correct to state that economic factors will always play an important role in ensuring a continuing combat against climate change, but it should not be the decisive factor.

As of 2012, the AAU surplus from the first commitment period was estimated to be over 13 billion tons of carbon dioxide equivalent. Russia (5.8), Ukraine (2.6) and Poland (0.8) are the

largest surplus holders, followed by Romania (0.7), the UK (0.5) and Germany (0.5).¹¹⁰ The major reason why such member Parties were able to obtain such a large surplus of AAU's, was due to the fact that they had rather low emission reduction targets under the Protocol, and such targets were able to be achieved without great difficulty. In other words, such member Parties would carryover such surplus of AAU's onto the second commitment period and reach their emission reduction targets merely by using the surplus and not by actually reducing their greenhouse emissions. However, the only obstacle placed in their way was the fact that such trading could only be used as a supplementary aid in reaching their targets.

Due to this abuse of power, an urgent amendment regarding acquisition and trading of AAU's was crucial. Fortunately, when the Protocol was amended¹¹¹ in 2012 so as to give way to the second commitment period, it was stated that any surplus of AAU's could be carried over without limit from the first to the second commitment period by Parties included in Annex I that have a target for the second commitment period but with restrictions on the use of these carried-over AAU's for the second commitment period and quantitative limits on how many of these units may be acquired from other Parties.

This particular amendment is of extreme importance regarding the second commitment period. This is due to the fact that surplus AAU's was one of the biggest shortfalls concerning the Kyoto Protocol's first commitment period, which needed to be addressed so as to enable the second, and current, commitment period to work more efficiently without the possibility of being deceived by its own member Parties.

As it can be seen, the amendment does incorporate a level of protection against overselling of AAU's. Fortunately, restrictions have been put in place to prevent such overselling and also further restrictions on how many units may be sold to other member Parties. The rationale for such protection has been addressed in the second commitment period so as to prevent any form of abuse from member Parties which possess large surpluses of AAU's. This is a clear example of how the amendment to the Protocol aims to combat possible abuse within the legal regime.

¹¹⁰ Assigned Amount Units (AAU's) Surplus. Available at: <http://carbonmarketwatch.org/category/additionality-and-baselines/aau-surplus/>. 2013. Accessed on: 1 November 2013.

¹¹¹ Amendment of the Kyoto Protocol. Available at: http://unfccc.int/key_steps/doha_climate_gateway/items/7389.php. 2013. Accessed on: 13 August 2013.

- Article 3, after paragraph 12 bis: ‘The Conference of the Parties serving as the meeting of the Parties to this Protocol shall ensure that, where units from approved activities under market-based mechanisms referred to in paragraph 12 bis above are used by Parties included in Annex I to assist them in achieving compliance with their quantified emission limitation and reduction commitments under Article 3, a share of these units is used to cover administrative expenses, as well as to assist developing country Parties that are particularly vulnerable to adverse effects of climate change to meet the costs of adaptation if these units are acquired under Article 17.’

The author has opted to include this particular amendment due to the fact that a change of mentality is evident here. For example, by mandating Annex I Parties to use parts of the profits made to cover the administrative expenses of such transactions to assist even further developing countries in meeting those expenses. The importance of this is that more responsibilities are being placed on developed countries within the climate change regime. As per the principle envisaged in the UNFCCC of CBDR’s, developed countries are to ‘take the lead’ in combating global climate change. This extra burden on them, clearly depicts that developed countries are more responsible for curbing greenhouse gas emissions worldwide than developing countries.

4.2 Legal Issues

Regarding the Kyoto Protocol’s second commitment period, a number of legal issues have had to be discussed between the member Parties in order to ensure a seamless transition onto the second commitment period.

The following unresolved issues took priority at the Doha negotiations and subsequent adoption of the second commitment period: the length of the second commitment period, mitigation and ambition; the legal continuity from 1 January 2013; the operational continuity from 1 January 2013; and the carryover and surplus of tradable units.

During the negotiations the following countries took centre stage: Algeria speaking on behalf of the G77 and China¹¹²; Nauru speaking for the Alliance of Small Island States (AOSIS)¹¹³;

¹¹² The second commitment period must be ambitious and begin with effect from 1 January 2013 without any gap between the first and second commitment periods. See Third World Network. Doha News Update 6. Kyoto Protocol second commitment period still mired in differences. Available at: http://twinside.org.sg/title2/climate/news/doha01/TWN_update6.pdf. 2012. Accessed on: 9 December 2013.

¹¹³ *Ibid.*

Swaziland speaking for the Africa Group¹¹⁴; China speaking on behalf of Brazil, India, South Africa and China (BASIC)¹¹⁵; the European Union¹¹⁶; Australia speaking on behalf of the Umbrella Group (Japan, Kazakhstan, New Zealand, Norway, Russia, Ukraine and Australia)¹¹⁷; Lichtenstein speaking on behalf of the Environmental Integrity Group (Mexico, Monaco, Republic of Korea, Switzerland and Lichtenstein)¹¹⁸; and a few others had similar yet contrasting views regarding the length of the second commitment period.

Many developed countries, such as the EU, the Umbrella Group and the Environmental Integrity Group were in favour of an 8-year long commitment period, whereas developing countries, such as AOSIS and the African Group were in favour of a 5-year long commitment period. The rationale behind both sets of years was ambition. In other words, Parties required that the new commitment period be ambitious enough. The dilemma which arose at the negotiations was attributed mainly to the fact that according to developing countries, a shorter commitment period would result in a higher level of ambition, in other words stricter, higher targets. On the other hand, the fear of a longer commitment period was evident as developing countries stressed the fact that should the targets be low and unambitious, then Parties would be confined to such low targets for an 8-year period. Most developed countries stressed the fact that the level ambition could be increased unilaterally or collectively by the Parties.

Nevertheless, at the conclusion of the negotiations, it was agreed that the length of the second commitment period would last eight years. Consequently, it would commence on 1 January 2013 and end on 31 December 2020. One of the major concerns between member Parties was that a five year period would be suitable as it would create a high level of ambition regarding emission reduction targets. In addition, most developing countries which currently do not have any legally binding obligations in terms of the second commitment period nor have any

¹¹⁴ On the length of commitment period, the Group's position is 5 years. See Third World Network. Doha News Update 6. Kyoto Protocol second commitment period still mired in differences (note 112).

¹¹⁵ The use of surplus units from the first commitment period must be limited in the second commitment period in order to preserve the environmental integrity of the second commitment period. See Third World Network. Doha News Update 6. Kyoto Protocol second commitment period still mired in differences (note 112).

¹¹⁶ The EU will immediately apply the second commitment period, and will do this regardless of the timing of ratification and entry into force of the Kyoto Protocol amendments. It reiterated its preference for an 8-year commitment period combined with a process to enable Parties to increase ambition both collectively and unilaterally during the commitment period. See Third World Network. Doha News Update 6. Kyoto Protocol second commitment period still mired in differences (note 112).

¹¹⁷ The second commitment period must be 8 years long. See Third World Network. Doha News Update 6. Kyoto Protocol second commitment period still mired in differences (note 112).

¹¹⁸ An 8-year second commitment period is most convenient for all. See Third World Network. Doha News Update 6. Kyoto Protocol second commitment period still mired in differences (note 112).

emission reduction targets, expressed the fact that a higher level of ambition was required from developed countries.

If one takes into account what the developing world expects from developed member Parties, it becomes evident that this would be in line with the principle of CBDR's and that developed countries have to take the lead in addressing climate change.

In addition, all the Parties which took part at the Doha negotiations agreed that a second commitment period starting on 1 January 2013 was to take place without any gap being visible from its predecessor. In other words, it became rather evident that no matter how long the second commitment period would last, the possibility of a gap existing between both commitment periods was not an option for discussion. It became evident that one of the ways in which the second commitment period would become operational was once ratification of at least 144 member Parties took place. However, since this would in almost all probability take years before the necessary number of parties actually ratify the amendment, and also since the Protocol did not provide for provisional application left only one option, that being provisional application as agreed between the Parties.

The EU was indeed certain that they would implement the amendment immediately disregarding the ratification process. This clearly showed a high level of commitment from them and it is hoped that a high level of ambition also plays a large role in the EU in their quest to reduce greenhouse gas emissions.

The issue of provisional application was crucial during the negotiations. However, before further analysis is given, of paramount importance would be to firstly define the concept of provisional¹¹⁹ application. Provisional application in terms of the amendment to the Kyoto Protocol means that the amendment to the Protocol is provisionally applied pending its entry into force. It must not be neglected that depending on the treaty, protocol or amendment to the protocol to enter into force a sufficient number of Parties must ratify such legal instrument, a process which in reality takes years before it is completed and brings the instrument into force. Provisional application is, therefore, an alternative to bring the legal instrument into force at an early stage. In terms of the 1969 Vienna Convention on the Law of

¹¹⁹ Oxford Dictionaries. Definition of 'provisional'. Available at: <http://www.oxforddictionaries.com/definition/english/provisional>. Accessed on: 6 March 2014.

Treaties, it provides for provisional application of a treaty in its Article 25¹²⁰, which states that a treaty is applied provisionally when it is provided for in the treaty or if the Parties agree to it.

Provisional application has been applied in other instances, for example in commodity agreements such as the 1994 United Nations International Tropical Timber Agreement.¹²¹ However, provisional application¹²² of the second commitment period does not necessarily operate the same way for all countries.

The final decision adopted by the CMP stated that ‘each Party may provisionally apply from 1 January 2013 the amendments to the Kyoto Protocol pending entry into force for such Party in accordance with Articles 20 and 21 of the Kyoto Protocol. Also that notification of such provisional application be given to the Depository. Further, Parties that do not provisionally apply the amendment will implement their commitments and other responsibilities in connection with the second commitment period in a manner that is consistent with their national legislation or domestic processes, as of January 2013 and pending the entry into force of the amendment in accordance with Articles 20 and 21 of the Kyoto Protocol.’¹²³ This clearly showed that provisional application would become operational immediately for the EU member Parties and would have the same immediate application effect on other Parties as long as such provisional application did not contravene with their national legislation or domestic processes. In other words, should the amendment conflict with a Party’s domestic laws, this would mean that provisional application would not be possible as a country’s national laws prevail over international laws.

‘Regarding “operational continuity” it was clarified that all Annex I Parties could continue to participate in CDM activities, but only Annex I Parties with second commitment period emission reduction targets can transfer and acquire certified emission reductions (CER’s) in the second commitment period.’¹²⁴ This meant that projects and activities deriving from the flexibility mechanisms would not cease at the conclusion of the first commitment period, but

¹²⁰ See United Nations Framework Convention on Climate Change. Legal considerations relating to a possible gap between the first and subsequent commitment periods. Available at: <http://unfccc.int/resource/docs/2010/awg13/eng/10.pdf>. 2010. Accessed on: 13 January 2014. At 6.

¹²¹ *Ibid* at 7.

¹²² *Ibid* at 6.

¹²³ *Ibid*.

¹²⁴ AWG-KP Update. Available at: http://unfccc.int/press/news_room/newsletter/items/7446txt.php. Accessed on: 10 December 2013.

that they would continue. However, it was made clear that this would only apply to Parties who had taken on emission reduction targets for the second commitment period.

The last issue in contention was the carryover of AAU's. This particular issue gave rise to much debate due to the fact that member Parties were concerned regarding possible abuse of the trading of such units. As analysed above, the possibility of abuse was prone to take place and the second commitment period had to ensure that such loophole be closed and rectified. To this issue, most Parties agreed that limitations had to be put in place regarding the trading of such units. If limits are imposed (coupled with the 90% commitment period reserve requirement), then this would certainly avoid the possibility of future abuse of the system.

‘It was agreed that surplus AAU's can be carried over without limit from the first to the second commitment period of the Kyoto Protocol by Parties included in Annex I that have a target for the second commitment period, but with restrictions on the use of these carried-over AAU's for the second commitment period, and quantitative limits on how many of these units may be acquired from other Parties.’¹²⁵ This clearly showed that even though surplus AAU's were allowed to be carried over onto the second commitment period, such allowance was coupled with restrictions on the use as well as the amount of carbon units which could be purchased from Parties.

As stated above, the author is of the view that in order to have a seamless transition between both commitment periods, all the legal and operational issues had to be firstly discussed and secondly agreed upon. The above-mentioned four issues were highly debated at Doha during December 2012 and it was finally agreed that the best solution to firstly keep the Kyoto Protocol alive and to secondly protect the sanctity of the principle of CBDR's, was to ensure that general agreement be reached on these issues.

‘In the end, the Ad Hoc Working Group of the Kyoto Protocol mandate (AWG-KP) succeeded with parties agreeing that the second commitment period “can” be provisionally applied from 1 January 2013. Annex I parties, such as the European countries, preferred a longer commitment period due to their internal legislation already in force and due to a desire to avoid a gap between the second commitment period and the new regime expected to enter into force in 2020.’¹²⁶

¹²⁵ *Ibid.*

¹²⁶ See Earth Negotiations Bulletin. Summary of the Doha Climate Change Conference (note 94).

The use of excess AAU's and whether they could be carried over to the second commitment period was one of the most debated issues at Doha. 'However, these surplus AAU's are mostly "hot air" units that do not represent real mitigation efforts but are due to the economic decline experienced during the transition to a market economy by a number of countries, such as the Russian Federation, Ukraine and Poland.'¹²⁷

As stated above, three member Parties were not in favour of the amendment limiting the use of surplus AAU's. 'They stated that "over-achievement" of commitments should not be punished by a limitation in the use of AAU's.'¹²⁸

As a result, despite the controversial success of such negotiations, a second commitment period was agreed and all the above-mentioned legal issues were discussed and agreed upon by almost all the member Parties present at the conference. This was crucial in ensuring that a seamless transition onto the second commitment period takes place.

In addition, one legal issue, which should have been, addressed at the Doha negotiations but which was not addressed was the lack of financial penalties for non-compliance within the Kyoto Protocol. A clear example of this is Canada's withdrawal from the Protocol while faced with non-compliance. Canada took part in the first commitment period between 2008 and 2012, yet in 2011 it decided to withdraw from the Kyoto Protocol and not take any further commitments under such international legal regime. During the first commitment period, Canada had not been in total compliance with its Kyoto targets, in fact it had an 805 metric tonnes of carbon dioxide deficit, which would equal to US\$19 billion in terms of carbon credits. Canada was aware of this and nevertheless opted to withdraw from the Protocol in December 2011 by utilizing Article 27¹²⁹ of the Protocol.

Article 27(2) of the Kyoto Protocol states as follows:

'Any such withdrawal shall take effect upon expiry of one year from the date of receipt by the Depositary of the notification of withdrawal, or on such later date as may be specified in the notification of withdrawal.'¹³⁰

¹²⁷ See Earth Negotiations Bulletin. Summary of the Doha Climate Change Conference (note 94).

¹²⁸ See Earth Negotiations Bulletin. Summary of the Doha Climate Change Conference (note 94).

¹²⁹ See Kyoto Protocol to the United Nations Framework Convention on Climate Change. Article 27. (note 43).

¹³⁰ Article 27(2) of the Kyoto Protocol.

In terms of this Article, it becomes evident that Canada's withdrawal would only take effect one year after its intention to withdraw. This took place during December 2011 and it became effective on December 2012. The repercussions of such withdrawal by Canada were as follows: 'Canada's obligations under the Protocol cover the years 2008-2012 so withdrawal would only be meaningful if it were initiated before the end of December 2011, so as to take effect before the end of the compliance period.'¹³¹Therefore, in terms of this Article, a country can only be in non-compliance after a review of emissions inventory data takes place. This will happen after Canada submits its final inventory report in 2014.

The realistic option for Canada to stay in compliance would have been to either make up for the carbon dioxide deficit or to purchase carbon credits in order to equal its legally binding emission reduction target of 6% reductions below 1990 levels. However, Canada opted to withdraw from the Protocol, due to the fact that there are no financial penalties for non-compliance under the Protocol. The actual penalty is to hold the country responsible for its carbon dioxide deficit, plus 30% in the second commitment period. However, this proved to be of no force and effect due to the fact that Canada had withdrawn from the Protocol and had no intention of being bound during the second commitment period.

The author has opted to discuss this legal issue as it clearly represent a major weakness in the armour of the Kyoto Protocol which should have been addressed at Doha in 2012, but unfortunately it was not discussed, leaving the Protocol vulnerable to the possibility of future exploitation.

4.3 Analysis

The Kyoto Protocol's second commitment period can be described as a positive step in the right direction. As analysed above, there were heated debates which surrounded how a second commitment period would be accommodated in a world which is currently divided into two spheres. The developed world which is bound by greenhouse gas emission reduction targets of 18% from 2013 until 2020, and the developing world which continues to be protected under the principle of CBDR's.

¹³¹Leach, A. The Globe And Mail. The nuts and bolts of Kyoto Withdrawal. Available at: <http://www.theglobeandmail.com/report-on-business/economy/economy-lab/the-nuts-and-bolts-of-kyoto-withdrawal/article619868/>. 2011. Accessed on: 10 December 2013.

Many of the legal issues which have had to be dealt with in order to provide for a smooth, effective and gapless transition onto the second commitment period were agreed at in Doha in December 2012. In the author's view, COP 18 was the final opportunity for member Parties to agree on the above-mentioned legal issues and to bring the amendments of the Kyoto Protocol into force.

In any event, an interesting analysis would be to consider the current ratification status of member Parties as of November 2013. Even though, it has already been agreed that provisional application would bring the second commitment period into force immediately for most Parties, it would be important to assess the current ratification status of the second commitment period, had member Parties not agreed on provisional application.

As of 27 December 2013, only five member Parties had ratified the amendment. The United Arab Emirates ratified the amendment on 26 April 2013; Barbados ratified it on 14 August 2013; Mauritius ratified it on 15 September 2013; Bangladesh on 13 November 2013; and Monaco on 27 December 2013 being the latest ratifying nation.

If an analysis is provided as to the above-mentioned list of member Parties, it becomes evident that the United Arab Emirates and Monaco were the first and last Parties to ratify it the amendment, clearly symbolizing the need to have the second commitment period legally in force. Secondly, the other three Parties, namely Barbados; Mauritius and Bangladesh are all developing countries with two of them being part of the Alliance of Small Island States (AOSIS) which would fall under the category of small island states which are most likely to be affected by climate change consequences, such as sea level rise. It must not be forgotten that both of these magnificent small island states could severely be affected should the melting of the ice caps continue to increase. Although Bangladesh not an island, it will significantly be affected by the consequences of climate change.¹³²

In addition, even though at the time of writing¹³³, only one Party had ratified the amendment, the author opted, for purposes of completeness, to include the most recent developments regarding the ratification status of the amendment for the entirety of 2013.

¹³² The consequences of Climate Change to which Bangladesh has been exposed to are as follows: 'Floods; cyclones and storm surges; salinity intrusion; and extreme temperature and drought.' See Denissen, A.K. NCDO. Climate Change and its impacts on Bangladesh. Available at: <http://www.ncdo.nl/artikel/climate-change-its-impacts-bangladesh>. 2012. Accessed on: 20 November 2013.

¹³³ The time of writing was July 2013.

From a logical point of view, if provisional application had not been agreed at the Doha negotiations, this would have resulted in a complete failure of the Protocol for the following reasons: at the time of writing the majority of 2013 has elapsed without any obligations being in force for Annex I countries. This is due to the fact that the amendment was adopted subject to Articles 20 and 21 of the Kyoto Protocol, and such Articles state that the amendment will come into force only after three-fourths of the member Parties have ratified the amendment. This meant that 144 nations had to still ratify the amendment before it would come into force.

As stated above, only five nations have ratified the amendment as of 27 December 2013.

This would have been one of the biggest obstacles to defeat in the international environmental law arena should the Parties not have agreed on provisional application.

Bearing in mind that neither the Kyoto Protocol nor its amendment make provision for provisional application¹³⁴ which would allow an MEA to come into force before the required ratification takes place, meant that provisional application as agreed between the Parties was the only alternative. The purpose of such provisional enforcement is to avoid a gap between the first commitment period and the second commitment period. It has to be acknowledged that while this gap was partly avoided by the adoption of the second commitment period under rather heated circumstances, the ratification issue was nevertheless something which could not be avoided and which inevitably would have led to the unavoidable gap between adoption of the amendment and enforcement of it.

However, according to a Note¹³⁵ by the Secretariat dated 13 September 2013¹³⁶ a number of important possible implications for the Compliance Committee during the second commitment period were outlined.

Firstly, the timing of the entry into force of the Doha amendment was of crucial importance due to the fact that even though Parties had agreed that provisional application of the amendment would take place pending ratification of the amendment, such Parties were to provide notification of any such provisional application to the Depository.¹³⁷ However, as of

¹³⁴ Bodansky, D. *W(h)ither the Kyoto Protocol? Durban and Beyond*. Harvard Project on Climate Agreements. Viewpoints. August 2011, at 8.

¹³⁵ CC/13/2013/4.

¹³⁶ United Nations Framework Convention on Climate Change. Compliance Committee. Available at: http://unfccc.int/files/kyoto_protocol/compliance/plenary/application/pdf/cc-13-2013-4_possible_implications_for_the_work_of_ccommittee.pdf. 2013. Accessed on: 14 January 2014.

¹³⁷ *Ibid.* At 2.

13 September 2013, no declarations had been received by the Depositary.¹³⁸ This once again depicts the complexity of the current climate change regime as a whole. In other words, during COP 18, it was agreed that provisional application would take place; however, written notification of such intention was never received by the Depositary. As a result, this brings the sanctity of the amendment into question as well as the motives of the member Parties. It would seem as if provisional application did indeed take place, however, the formality of informing the Depositary of their intention to do so was neglected. Nevertheless, it must not be forgotten that according to the final decision adopted by the CMP, Parties who do not provisionally apply the amendment, but still implement their commitments and responsibilities in terms of the second commitment period in a manner which is consistent with their national legislation or domestic processes.

Surely, this had created ambiguity regarding the operational continuity of the second commitment period. It has already been established that provisional application would enable the legal continuity of the amendment; however, when encountered with operational continuity it became evident and unfortunate that as of September 2013, the declarations which would have made provisional application legal and valid, have not taken place.

The author is of the view that much misused time; disagreement and complexity of legal issues have weakened the ambition of the Kyoto Protocol. It would be wise to admit that the second commitment period has improved on a number of the shortfalls, which were evident in the first commitment period. Yet, the legal operational aspect of the current period might be seen as beneficial the moment it becomes evident that the amendments to the Protocol are in fact in force. In other words, it is evident that member Parties have agreed and committed themselves to provisionally applying the amendments but obscurity of the current status of such commitments shows an uncertain and unpromising future in the realm of the climate change arena.

¹³⁸ See United Nations Framework Convention on Climate Change. Compliance Committee (note 136) at 2.

Chapter 5

Conclusion

Negotiating a successor to the Kyoto Protocol has and is currently proving to be an incredibly difficult process given the conflicting interests of the negotiating Parties.

On the one hand, it has become evident that the United States is unlikely to commit to legally binding greenhouse gas emission reduction targets, unless other major greenhouse gas emitters are subjected to emission reduction targets as well. Such countries are in fact developing countries, more specifically China and India. In other words, in order for negotiations on a legal instrument which is set to perhaps replace the Kyoto Protocol entirely, will depend on obtaining the cooperation of the United States. This is largely due to the fact that they contribute to approximately 19% of greenhouse gas emissions, and also they are one of the strongest economies in the world, meaning that they possess the required resources to effectively reduce greenhouse gases.

As it has been emphasised above, in order to successfully combat global climate change, whether it be through the Kyoto Protocol or a future successor, will largely depend on the stringency of the legal regime which applies to it and also on the compliance of obligations from the member Parties.

Furthermore, in order to create an international agreement which firstly addresses the issue of climate change at its root and secondly which ensures that compliance from member Parties becomes a reality, will depend on the following factors:

According to Bodansky¹³⁹ stringency, participation and effectiveness are at the centre of any international agreement. What is meant in this instance, is that an MEA must be stringent enough so as to lead to overall effectiveness, but at the same time promote participation by member Parties. In other words, we cannot have an MEA which is too strict¹⁴⁰ as this would result in a lack of participation from Parties. There must always be a balance between all three elements.

For instance, if one analyses the Kyoto Protocol and its first commitment period, it would seem clear that the emission reduction targets imposed were not stringent enough so as to adequately combat global climate change. In fact, they have been criticised as being inadequate and rather weak. Nevertheless, what caused the Protocol to have a lack of participation from the United States? And what factor has caused the withdrawal from the second commitment period of Canada, Japan, Russia and New Zealand? The answer to both these questions can be found within the UNFCCC. This framework Convention stipulated that the principle of CBDR had to be applied so as to provide for equity and fairness between developed (Annex I) and developing (Non-Annex I) countries. Therefore, it can be stated that lack of political will was the main cause of lack of participation, especially from the United States. The author has chosen the United States as an example to illustrate this due to the fact that they have in the past been the driving force in the implementation of MEA's, especially regarding the financing of such legal agreements. In July 2013, President Obama¹⁴¹ stated in an interview held at the University of Johannesburg, South Africa that 'the United States was willing to cooperate and therefore participate in the fight against climate change. However, they were not prepared to do it alone. Participation from other nations was also required.'¹⁴² Here, the correlation between President Obama's statement and the current climate change status referred to no other than China.

¹³⁹ Bodansky, D. & O'Connor, S, D. *The Durban Platform: Issues and Options for a 2015 Agreement*. December 2012, at 2.

¹⁴⁰ Due to the fact that too much emphasis is place on the stringency requirement.

¹⁴¹ This took place at the University Hall of the University of Johannesburg earlier this year. Watched via CNN on 1 July 2013. Video available at: <http://www.uj.ac.za/en/pages/barack-obama-visits-soweto-campus-of-university-of-johannesburg-south-africa.aspx>). 2013. Accessed on: 22 November 2013.

¹⁴² *Ibid.*

The reality of the current climate change status is that China and India are unlikely to agree to legally binding targets that cap their global emissions. This is due to the fact that this could impede their economies from developing further, reason why the principle of CBDR's was created. However, as it has been established in this thesis, perhaps the most adequate way to address climate change in an effective manner, is to obtain cooperation from the developing world as well. Without the cooperation from the top three greenhouse gas emitters in the world, namely China, the United States and India, success in terms of a future legally binding agreement is merely an unobtainable dream.

For instance, the failure of COP 15 in 2009 in Copenhagen to reach any binding agreement is a clear indication of the difficulties of negotiating a successor. Rather than adopting it, the COP merely 'took note' of the Copenhagen Accord. As it has been stated above, despite the immense difference of opinion between member Parties, a new international legally binding agreement must be adopted as soon as possible. The urgency in adopting a new legally binding agreement can be attributed to the fact that the Kyoto Protocol's second commitment period will come to an end on 31 December 2020 and the hope is that it will not be extended further but that it will be replaced by another legal instrument with emission reduction targets on both worlds.

In addition, one of the major reasons why the United States refuses to 'blink' and accede to an international legally binding agreement with greenhouse gases emission reduction targets, is that of China's potential to further develop its economy. Bearing in mind that China is the largest greenhouse gas emitter in the world, it is however protected under the principle of CBDR's which protects China from emission reduction obligations under the Kyoto Protocol. Should China continue to grow its economy at such high rate, the United States will surely be overtaken as the world's biggest superpower. This is something which any country would want to avoid.

Nevertheless, despite the 'staring contest' between the United States and China, a legal solution to global climate change is due. A new international legally binding agreement would seem to be the best available option in addressing global climate change.

However, despite rather political disagreements between the developed and developing world, a breakthrough took place in 2011. It was only at COP 17 held in Durban, that member Parties agreed that an international legally binding agreement, which is set to impose obligations on both the developed as well as the developing world was the way forward. This

legal instrument seems, in the eyes of many, to be the future of the climate change regime.

According to the commitment undertaken in 2011 at COP 17 in Durban, such an instrument is set to be adopted in 2015 at COP 21 to be held in Paris and to be in force by the year 2020, which is highly convenient since the Kyoto Protocol second commitment period comes to an end on 31 December 2020. The Durban Platform decision provides that the Ad Hoc Working Group on the Durban Platform (ADP) is to ‘develop a protocol, another legal instrument, or an agreed outcome with legal force under the United Nations Framework Convention on Climate Change.’¹⁴³ This clearly shows that change must be brought into the climate change arena. It has to be accepted that no real progress has been made ever since the Kyoto Protocol came into force, as it did not impose emission reduction targets on developing countries, and the emissions which were imposed during the first commitment period were not ambitious enough. However, the results of the current second commitment period are still to be seen.

The Protocol’s lack of success does not necessarily mean that the Protocol was a complete failure. The Kyoto Protocol whether it survives post-2020 or not, will always be remembered as the first MEA which imposed emission reduction targets on member Parties. Even though its scope was narrow, and emission targets were rather low, it served as a stepping-stone to enable Parties to finally reach an adequate climate change regime.

The only possible solution which would seem to once and for all address climate change adequately, is to firstly obtain the cooperation from the United States, and secondly to have the developing world bound by emission reduction targets. If this were to take place, the principle of CBDR’s would have to be adapted to ensure that while developed countries continue to take the lead, developing countries also take on emission reduction targets. However, such targets would need to differ from those imposed on developed countries in terms of percentage reductions as well as time periods. For instance, bearing in mind that developed countries are subjected to 18% emissions reductions from 2013-2020, developing countries could be subject to 10% emission reductions until 2022. In other words, lower emissions reduction target but for a longer period of time. This hypothetical example depicts a manner in which the principle of CBDR’s could be adjusted so as to incorporate the much-needed contribution of the developing world. The question which will surely be asked in this

¹⁴³ See Bodansky & O’Connor (note 139) at 6.

particular circumstance is to what extent are developing nations liable for climate change? In other words, if both groups of countries are to be imposed with emission reduction targets, how will such targets differ between countries? These are questions which can only be answered once negotiations take place at COP 21. Whatever the outcome might be, political will and adaptation of the principle of CBDR is necessary if all 192 member Parties are to be bound by the new climate change regime.

Ultimately, the final hope would be that the current global reduction of only 15% of all global emissions be increased substantially by the cooperation from the biggest emitters of greenhouse gases.

In order to effect any meaningful change, the ADP needs to impose binding commitments on developing countries to reduce their emission levels. China and India are both non-Annex I countries under the Kyoto Protocol, and are thus not subject to binding emission reduction targets. This must change in the new climate change regime. Commitments from the United States also need to be obtained, as they would be a key player in the financing of the agreement.

In concluding, global climate change has been described as possibly being one of the most important environmental law matters presently taking centre stage in the international environmental law arena. Firstly, the establishment of the UNFCCC in 1992, has been seen as the first step in an attempt to combat climate change. Even though it is a framework Convention without any actual emission reduction targets, it set the foundation for the future establishment of its subsequent Protocol. In 1997, the Kyoto Protocol to the UNFCCC was adopted and it entered into force in 2005. This Protocol was the only international engine which the world at large depended on to address the issue of climate change. The Kyoto Protocol's first commitment period took place between 2008 to 2012, leaving the door open to much heated debate regarding the future of the Protocol post-2012. Nevertheless, despite much uncertainty, in 2012, the Kyoto Protocol was amended so as to give way to a second commitment period which is currently the only international climate change regime in existence and even though it is currently being in force by way of provisional application, its actual ratification status is rather low.

As it has been seen from this thesis, the Kyoto Protocol could be described as an ambitious MEA. This is due to the fact that while many of its criticisms related to inadequate emission reduction targets, lack of participation by the world's largest greenhouse emitters and most

importantly by the failure to have the shortcomings of the first commitment period rectified in the second commitment period, it nevertheless succeeded in being extended until 31 December 2020. In addition, it must be acknowledged that while the second commitment period will not play a decisive role in curbing global climate change, it is the only international agreement that the world at large depends on to address climate change until 2020. In other words, between 2013 and 2020, no other legal regime at an international level is available. The Convention and its Protocol, whether they are replaced or not, will always be remembered as the MEA's which first gathered the world's nations in the hope to address global climate change.

With regards to the future of a climate change regime, it can be stated that success in the international environmental law arena, will only be obtained the moment the environment becomes the top priority in states' agendas and not their economies. In other words, while any action taken by states means that billions of dollars are to be spent in addressing a problem which we only have ourselves to blame for, the environment as well the ensured existence of future generations should always prevail over politics, economics and the never-ending fight for worldwide economic dominance.

It has to be admitted that while greenhouse gases are part of our existence, their complete elimination is virtually impossible. This has to be accepted and states must work around such fact. What has to be agreed upon, hopefully by the adoption and subsequent ratification of the ADP, is a global commitment by both developed and developing countries with emission reduction targets being imposed on both. The adaptation and perhaps slight departure from the UNFCCC principle of CBDR is something which might have to be sacrificed in order to obtain the full cooperation from the United States. While they are not the largest emitter of greenhouse gases, their financial cooperation and weight in decision-making could prove to be the difference between success and failure. If the developing world, continues with their unrestricted greenhouse gas emissions, it is indeed correct to assume that sooner rather than later they will become developed countries with economies flourishing. Nevertheless, success always comes at a high price, and the price to pay shall not be in a known currency nor in a quantified amount, its price would be the deprivation of future generations from knowing the environment as we know it today.

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