THE PARIS AGREEMENT: THE LANDMARK INTERACTION OF SCIENCE, DIPLOMACY AND INTERNATIONAL LAW

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INTRODUCTION: THE RED CARPET IN PARIS FOR ACTION ON CLIMATE CHANGE

Climate change has been a major concern in the contemporary times. It is not exaggerating to consider climate change as the most important as well as the most dreaded environmental phenomenon in the 21st century. Anthropogenic emissions of greenhouse gases have initiated the undesirable process of bringing about an increase in the average global temperatures, and if left unchecked, this process could culminate in a fundamental transformation of the global landscape for the worst.

The present paper is concerned with the global efforts aimed at curbing climate change. Chiefly, the paper aims to explore the very recent and much hyped international development in this regard: the adoption of the text of what has been popularly referred to as the 'Paris Agreement'.

The representatives of 195 countries of the world assembled in the city of Paris, France to negotiate an international agreement that would guide the future action against climate change. Many have hailed the adoption of the Paris Agreement as a significant achievement, and therefore, the aim of this paper is to explore the salient features of this historic agreement.

However, the Paris Agreement is better understood along with the context in which it was negotiated. Therefore, the present paper will not be confined to a bare perusal of the text of the Paris Agreement and its analysis, but will provide an insight into the historical context in which the need for such an Agreement was felt. This will require a brief look into the global attempts at containing climate change under the aegis of the United Nations, beginning in 1992. Moreover, it will be interesting and enlightening to understand how different countries perceived their role in the global action against

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¹ 'Historic Paris Agreement on Climate Change' (UN Climate Change Newsroom, 12 December 2015) http://newsroom.unfccc.int/unfccc-newsroom/finale-cop21/ accessed 15 October 2016.

climate change. This will include a study of the rift between the developed countries and the developing countries, as well as the rise of a new group representing the most vulnerable countries. In addition, this will enable an understanding of the contentious issues regarding climate change.

An understanding of the context described as aforesaid will then provide the groundwork for understanding how the contentious issues were sought to be resolved during the different negotiations that preceded the Paris climate talks, and then during the Paris climate talks.

CLIMATE CHANGE: WHAT IS THE SCIENTIFIC EVIDENCE?

To begin with, it is important to understand the reason why a consensus has emerged around the world for the urgent action against climate change. The reason lies in the scientific evidence in various reports that point towards the fact that a rise in global temperatures is bound to be detrimental for the earth's existence. It is impossible to compile all the scientific evidence available in this regard; however, it is significant to look at that which has international acceptance.

The Intergovernmental Panel on Climate Change (hereinafter IPCC) Assessment Report enjoys international acceptance when it comes to relying on the evidence of climate change. The IPCC, set up in 1988 by the World Meteorological Organization and the United Nations Environment Programme, assesses contemporary scientific literature and publishes data that forms the basis for international policy formulation.²

IPCC's Assessment Reports have consistently pointed out that the threshold beyond which climate change will have drastic effects is the figure "2 degree Celsius". This means that an increase in average global temperatures by more than 2 degree Celsius will be fatal to the earth's existence.³ In 2009, the global representatives agreed, in Copenhagen, that the threshold limit for adverse effects of the climate change is 2 degree Celsius. The basis of such a consensus was *inter alia*, the data in the Fourth Assessment Report of IPCC. The Copenhagen Accord, a manifestation of this consensus, reads as under:

² IPCC Secretariat, 'IPCC Factsheet: What is the IPCC?' (Intergovernmental Panel on Climate Change,30 August 2013) www.ipcc.ch/news_and_events/docs/factsheets/FS_what_ipcc.pdf > accessed 15 October 2016.

³ Leo Hickman, 'Two degrees: The history of climate change's 'speed limit' (*Carbon Brief*, 8 December 2014) <www.carbonbrief.org/two-degrees-the-history-of-climate-changes-speed-limit> accessed 15 October 2016.

"We agree that deep cuts in global emissions are required according to science, and as documented by the IPCC Fourth Assessment Report with a view to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity."⁴

However, it is also significant to note that in Copenhagen itself, the world leaders also decided to consider, as part of a long-term goal, containing the rise in the average global temperatures within 1.5 degree Celsius. Therefore, while the IPCC Report pointed out the threshold as 2 degree Celsius and the global community accepted it as one of its primary targets, the idea of making efforts to curb climate change also included the idea of making 1.5 degree Celsius a target. The relevant part of the Copenhagen Accord reads as under:

"We call for an assessment of the implementation of this Accord to be completed by 2015, including in light of the Convention's ultimate objective. This would include consideration of strengthening the long-term goal referencing various matters presented by the science, including in relation to temperature rises of 1.5 degrees Celsius."

CLIMATE CHANGE: FROM 1992 ONWARDS, THE PACE OF NEGOTIATIONS

The negotiations have been one of the most highlighted aspects of the issue of climate change. This is because consensus had eluded the global community for long on the issue of climate change. In this section of the paper, a brief survey of some important international negotiations under the aegis of the United Nations concerning climate change is made.

The year 1992 marked a significant milestone for the international community when the world agreed to take action to combat climate change. For significant action, this global will was manifested in the United Nations Framework Convention on Climate Change (hereinafter UNFCCC). Under the UNFCCC, a provision was made for setting up of the Conference of the Parties (hereinafter COP), whose mandate is described as under:

^{4 &#}x27;Copenhagen Accord' (Draft Decision, CP 15, Copenhagen, 18 December 2009) para 2 http://unfccc.int/resource/docs/2009/cop15/eng/107.pdf accessed 15 October 2016.

⁵ ibid (12).

"The Conference of the Parties, as the supreme body of this Convention, shall keep under regular review the implementation of the Convention and any related legal instruments that the Conference of the Parties may adopt, and shall make, within its mandate, the decisions necessary to promote the effective implementation of the Convention. To this end, it shall:

(a) Periodically examine the obligations of the Parties and the institutional arrangements under the Convention, in the light of the objective of the Convention, the experience gained in its implementation and the evolution of scientific and technological knowledge;..."⁶

The UNFCCC provides for the annual sessions of the COP, and consistent with the aforementioned mandate, attempts have been made to review the obligations of the member countries under the UNFCCC. Therefore, the annual sessions of COP have been the platform for global climate change negotiations and some of the important COPs have been mentioned below, reflecting the important milestones in the global action against climate change.

The COP 3 1997: The Kyoto Protocol

The Kyoto Protocol was the result of the annual session of the COP in Kyoto, Japan in 1997. The "Kyoto Protocol" was adopted as a legal instrument linked to the UNFCCC. The Kyoto Protocol prescribed a time period during which the "developed countries" consistent with the fundamental principles governing the UNFCCC, were to reduce their greenhouse gas emissions. In consonance with the principles of the UNFCCC the Kyoto Protocol did not impose any obligation on the developing countries, . The relevant principles of the UNFCCC are reproduced hereunder:

"In their actions to achieve the objective of the Convention and to implement its provisions, the Parties shall be guided, inter alia, by the following:

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

^{6 &#}x27;United Nations Framework Convention on Climate Change' (1992) art 7(2). http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf accessed 15 October 2016.

^{7 &#}x27;Making those first steps Count: An Introduction to the Kyoto Protocol'http://unfccc.int/essential_background/kyoto_protocol/items/6034.php accessed 15 October 2016.

2. The specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change, and of those Parties, especially developing country Parties, that would have to bear a disproportionate or abnormal burden under the Convention, should be given full consideration.

...."8 (Emphasis supplied)

THE COP 13: THE BALI ACTION PLAN

This session of the COP, in Bali, Indonesia (2007), is significant in that it laid down the framework for the future course of negotiations on climate change. Among other things, it provided that the negotiations would focus on mitigation, adaptation, climate finance and technology transfer. As it would be seen later in this paper, most of the contentious issues in the Paris climate talks in 2015 were in relation to the aforementioned issues. The aim was to complete the negotiating process by 2009 so that a new legal framework could be put in place after the commitments of the developed countries under the Kyoto Protocol end in 2012. The relevant part of the Bali Action Plan reads as under:

"The Conference of the Parties...

Decides to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision at its fifteenth session..."¹⁰

(The Fifteenth session of the COP was held in Copenhagen, Denmark in 2009, as will be seen below)

THE COPENHAGEN COP-15

The Copenhagen COP was a huge disappointment in terms of progress on climate change negotiations. The world leaders had assembled at Copenhagen, in Denmark (2009) to chart out a new agreement to replace the Kyoto Protocol, which was scheduled

^{8&}quot;United Nations Framework Convention on Climate Change' (1992) art 3 http://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf accessed 15 October 2016.

^{9 &#}x27;Now, up to and beyond 2012: The Bali Road Map' http://unfccc.int/key_steps/bali_road_map/ items/6072.php>accessed 15 October 2016.

^{10 &#}x27;Bali Action Plan' (Draft Decision, 1/CP. 13,Bali,14 March 2008) page 3 http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf accessed 15 October 2016.

to end in 2012. However, the rift between the developing countries and the developed countries (for reasons that will be described in the pages that follow) led to an impasse and no binding agreement was arrived at. The most that could be done was to postpone matters for a later date. The major take away from the Conference was however, the recognition of the threshold limit of 2 degree Celsius.¹¹

CANCUN COP 1612

The negotiations in Cancun, Mexico were significant in that they resulted in Cancun Agreements wherein the developed countries documented their commitment to cut back on carbon emissions. This was supplemented by an agreement concerning the developing countries where they demonstrated their readiness to cut carbon emissions. The Cancun Agreements were also important from the point of view of climate finance as a new Green Climate Fund was decided to be set up through the Agreements. The relevant part of the COP Decision is being reproduced hereunder:

"102. Decides to establish a Green Climate Fund, to be designated as an operating entity of the financial mechanism of the Convention under Article 11, with arrangements to be concluded between the Conference of the Parties and the Green Climate Fund to ensure that it is accountable to and functions under the guidance of the Conference of the Parties, to support projects, programmes, policies and other activities in developing country Parties using thematic funding windows;" (Emphasis supplied)

On the question of reviewing the Kyoto Protocol, as it was due to end in 2012, the same was postponed for consideration in the upcoming COP session in Durban, South Africa.

THE DURBAN COP 17

The COP 17 session in Durban, South Africa was a marked success over the previous COP sessions because the developed countries agreed to extend the commitment period under the Kyoto Protocol beyond 2012, until 2020. However, it was also decided that by

¹¹'Q&A: The Copenhagen climate summit' BBC News (United Kingdom, 21 December 2009) http://news.bbc.co.uk/2/hi/8278973.stm accessed 15 October 2016.

¹² Adam Vaughan, 'Cancún climate agreements at a glance' (*The Guardian*, 13 December 2010) www.theguardian.com/environment/2010/dec/13/cancun-climate-agreement accessed 18 October 2016.

^{13 &#}x27;The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention' (Draft Decision 1/CP 16 Cancun, 15 March 2011) para 102 http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf accessed 18 October 2016.

2015, a new legal agreement will have been negotiated which will take the place of the Kyoto Protocol, once the second commitment period is completed in 2020. This implied that the developing countries could also be made to bear responsibility for the mitigation efforts in the action against climate change. ¹⁴ As the text of the decision reads:

"4. Decides that the Ad Hoc Working Group on the Durban Platform for Enhanced Action shall complete its work as early as possible but no later than 2015 in order to adopt this protocol, another legal instrument or an agreed outcome with legal force at the twenty-first session of the Conference of the Parties and for it to come into effect and be implemented from 2020;" (Emphasis supplied)

Further, it was also agreed that negotiations would focus on technology transfer and climate finance to enable the developing countries to adapt to the effects of climate change.

THE DOHA COP 18

In Doha, Qatar (2012), the COP session resulted in the changes in the Kyoto Protocol to give effect to the decisions regarding the second commitment period taken in the Durban COP. Moreover, the Doha COP session is important in the sense that it laid down the time table for the negotiations for a new legal agreement to be carved out by 2015, to replace the Kyoto Protocol at the completion of the Second Commitment period by 2020. The Decision of the COP reads as under:

"4. Determined to adopt a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties at its twenty-first session, due to be held from Wednesday, 2 December to Sunday, 13 December 2015, and for it to come into effect and be implemented from 2020;" 17

^{14 &#}x27;Durban: Towards full implementation of the UN Climate Change Convention' http://unfccc.int/key_steps/durban_outcomes/items/6825.php accessed 18 October 2016.

^{15 &#}x27;Establishment of an Ad Hoc Working Group on the Durban Platform for Enhanced Action' (Draft Decision 1/CP 17,Durban,15 March 2012) para 4 http://unfccc.int/resource/docs/2011/cop17/eng/09a01.pdf accessed 18 October 2016.

^{16 &#}x27;The Doha Climate Gateway' http://unfccc.int/key_steps/doha_climate_gateway/items/7389.php>accessed 18 October 2016.

^{&#}x27;Agreed outcome pursuant to the Bali Action Plan' (Draft Decision 1/CP 18, Doha, 28 February 2013) para 4 http://unfccc.int/resource/docs/2012/cop18/eng/08a01.pdf accessed 18 October 2016.

THE WARSAW COP 19

The Warsaw COP in Poland prepared the groundwork for negotiations towards a new legal instrument for climate change, whose proposed deadline was set as December 2015. At the COP 19, the representatives of the member countries agreed that they would submit their nationally determined contributions as part of the negotiations process. ¹⁸ The relevant part of the COP Decision reads as under:

"To invite all Parties to initiate or intensify domestic preparations for their intended nationally determined contributions, without prejudice to the legal nature of the contributions, in the context of adopting a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties towards achieving the objective of the Convention as set out in its Article 2 and to communicate them well in advance of the twenty-first session of the Conference of the Parties (by the first quarter of 2015 by those Parties ready to do so) in a manner that facilitates the clarity, transparency and understanding of the intended contributions, without prejudice to the legal nature of the contributions;" (Emphasis supplied)

THE LIMA COP 20

The Lima COP was intended to be the preparatory forum for the ultimate negotiations at the 2015 COP session in Paris, France. As per the decision of the COP 19 in Warsaw, Poland, the Lima COP provided for the factors that had to feature in the intended nationally determined contributions (hereinafter INDC) which were to form the basis for the negotiations in the Paris COP. Moreover, the fact that INDC were solicited at Warsaw signified that the Paris COP would take a more flexible, bottom up approach to avoid the disappointment of the Copenhagen COP, which had resulted in a negotiation deadlock. However, there was a great deal of uncertainty on the specifics of the legal agreement proposed to be drafted and adopted in the next COP session in Paris. ²⁰ The relevant part of the Decision text read as under: ²¹

^{18 &#}x27;Warsaw Outcomes' http://unfccc.int/key_steps/warsaw_outcomes/items/8006.php accessed 19 October 2016.

^{&#}x27;Further advancing the Durban Platform' (Draft Decision 1/CP 19, Warsaw, 31 January 2014) para 2(b) http://unfccc.int/resource/docs/2013/cop19/eng/10a01.pdf accessed 19 October 2016

²⁰ Suzanne Goldenberg, 'Lima climate change talks reach global warming agreement' (*The Guardian*, 14 December 2014) https://www.theguardian.com/environment/2014/dec/14/lima-climate-change-talks-reach-agreement >accessed 19 October 2016.

²¹ 'Lima Call for Climate Action' (Draft Decision, 1/CP 20, Lima, 2 February 2015) paras 13-14 http://unfccc.int/resource/docs/2014/cop20/eng/10a01.pdf accessed 15 October 2016.

"13.Reiterates its invitation to all Parties to communicate their intended nationally determined contributions well in advance of the twenty-first session of the Conference of the Parties (by the first quarter of 2015 by those Parties ready to do so) in a manner that facilitates the clarity, transparency and understanding of the intended nationally determined contributions;

14. Agrees that the information to be provided by Parties communicating their intended nationally determined contributions, in order to facilitate clarity, transparency and understanding, may include, as appropriate, inter alia, quantifiable information on the reference point (including, as appropriate, a base year), time frames and/or periods for implementation, scope and coverage, planning processes, assumptions and methodological approaches including those for estimating and accounting for anthropogenic greenhouse gas emissions and, as appropriate, removals, and how the Party considers that its intended nationally determined contribution is fair and ambitious, in light of its national circumstances, and how it contributes towards achieving the objective of the Convention as set out in its Article 2;" (Emphasis supplied to underline the factors that were suggested to be included in the INDCs that were to be submitted by the countries)

THE WAR OF WORDS: THE POINTS OF CONTENTION ON THE EVE OF THE PARIS CLIMATE TALKS

Before undertaking a review of the Paris Agreement, it is necessary to provide a brief insight into the major points of difference or controversy that existed on the eve of the Paris Climate talks and that had continued to engage the negotiators during the talks which had to be extended beyond the scheduled period as no consensus was in sight (unless of course the consensus was arrived upon subsequently).

The issues are more than one but it must be kept in mind that the conflict between the developed countries and the developing countries lies at the heart of the whole debate. This aspect needs to be understood in order to better appreciate the points of difference that exist between the countries on the issue of climate change (the points will be elaborated upon in this section).

When the UNFCCC was agreed upon in the first place, there was a mutual agreement that the developed countries (or the industrialised countries) were more responsible for the state of climate change than the other countries. Their "historical" emissions were one of the major causes that had brought the world to such a state of emergency in respect of climate change. Moreover, being industrialised and developed, such countries also had the capacity to lead in the global action against climate change. This implied

that the developed countries are required to take more onerous responsibilities in the fight against climate change.

However, the developed countries were of the view that of late, some of the developing countries, (the ones that are designated nowadays as "emerging economies") like India and China, are also contributing to the burden of carbon emissions through the developmental actions that they are undertaking. In view of the same, they are also required to bear similar onerous responsibilities for fighting climate change. However, countries like India and China have countered this argument by asserting that the concerns of development require continued emissions and therefore they should reasonably be exempted from compliance with legally binding commitments on climate change.

The aforesaid being the background of the contentious issues between the developed and the developing countries, following are the specific points on which the countries were in disagreement:

EFFORTS AT MITIGATION

Earlier, for the reasons mentioned above, the developing countries had been exempted from any legally binding commitments towards mitigating the carbon emissions. This was the reason that no developing country among the Annex I parties to the Kyoto Protocol (the parties that were required to undertake emission cuts mandatorily). However, due to the insistence of the developed countries, there was considerable pressure on the developing countries to undertake responsibility for emission cuts. However, the developing countries still insisted that the commitments under the Paris Agreement should be ones that agree with the UNFCCC's principles of equity and Common But Differentiated Responsibilities (hereinafter CBDR) whereby the commitments should correspond to the level of development of the country instead of being uniformly applicable for every nation regardless of her development needs and capabilities.²²

ADAPTION

The developing countries also emphasised the need for the proposed new legal instrument to address the issues pertaining to "adaptation" to the effects of climate change. The developing countries were of the view that the historical carbon emissions

²² Gwynne Taraska, '4 of The Most Controversial Issues At The Paris Climate Talks, Explained: Differentiation' (*Climate Progress*, 10 December 2015) http://thinkprogress.org/climate/2015/12/10/3730298/four-stumbling-blocks-paris/>accessed15th January, 2016.

by the developed countries had resulted in irreversible changes in the climate, which is evident through unseasonal rains, droughts and floods. Therefore, the developing countries argued that the proposed legal instrument should also focus on the aspects where the industrialised countries would actively assist the process of adaptation by the developing countries, in view of their developmental needs.²³

CLIMATE FINANCE

Industrialised countries have enough funds to effectively counter the climate change, something that eludes the developing countries. Being historically responsible for carbon emissions, the industrialised countries should commit towards raising funds for the developing countries to undertake efforts aimed at mitigation as well as adaptation. This assertion of the developing countries had resulted in a series of initiatives under the legal framework of the UNFCCC, such as the Green Climate Fund, as referred to in the previous section on negotiations. However, problem arose when the developed countries failed to commit for a specific amount to be raised and insisted on the emerging economies like India and China to contribute to the Fund as well. This position of the developed countries did not go down well with the developing countries.²⁴

TECHNOLOGY TRANSFER

The developing countries have been asserting that developed countries have the green technology that assists in mitigating emissions and adapting to the effects of climate change. However, the pro-intellectual property regime in most of the developed countries has implied that this technology is not accessible to the developing countries. For example, huge amount of license fees for using an innovation will obviously discourage a "fund deficient" developing country from being able to utilise the innovation for sustainable development. Therefore, the developing countries have been consistently demanding a legal framework whereby the transfer of technology can be affected to enable the developing countries to take effective action as part of their mitigation and adaptation strategies. For example, the European Union has been able to come up with drought resistant crops. The technology to develop similar crops could prove very fruitful for the development concerns of a country like India, thus assisting in her efforts at adaptation. A cost effective strategy at adaptation may enable countries like

²³ Background Paper, 'Adaptation to Climate Change in the context of Sustainable Development' (TERI) <www.teriin.org/events/docs/adapt.pdf> accessed 19 October 2016.

²⁴Amitabh Sinha, 'Paris Climate Talks: Money does the talking' (*The Indian Express*, 9 December 2015) http://indianexpress.com/article/explained/paris-climate-talks-money-does-the-talking/ accessed 19 October 2016.

India to devote more of their resources towards achieving their mitigation targets, which will be beneficial for the whole world.²⁵

THE THRESHOLD TEMPERATURE RISE

While the consensus among the negotiating parties has been to the effect that the average global temperature rise has to be contained below the mark of 2 degree Celsius, yet there has been a group of countries arguing that this limit be further reduced to 1.5 degree Celsius. This group of countries refer themselves as "most vulnerable" and comprise mostly of the small island nations around the globe. The rise in sea levels due to the effects of climate change is believed to be the biggest concern for these island countries. However, their demand requires the mitigation efforts be augmented so as to achieve the target of 1.5 degree Celsius because the scientific opinion is that the INDC submitted by the countries are even short of meeting the 2 degree Celsius target. The speech of the United States President Barack Obama, at the Paris climate talks was quite vocal of these concerns of the island nations, as he had observed:

"...We know the truth that many nations have contributed little to climate change but will be the first to feel its most destructive effects. For some, particularly island nations –whose leaders I'll meet with tomorrow–climate change is a threat to their very existence..."²⁷

THE BIG LEAP FORWARD: THE PARIS AGREEMENT AND ITS SALIENT FEATURES

When the COP 21 began in Paris, France, there was the apprehension that Copenhagen disappointment may be repeated, given the number of contentious issues (which have elaborated upon above). Even during the annual session of the COP, the differences remained, which forced the extension of the session beyond its scheduled timetable.²⁸

²⁵ 'Technology' (UNFCCC Official Website) http://unfccc.int/technology/items/2681.php accessed 19 October 2016.

²⁶ Gwynne Taraska, '4 Of The Most Controversial Issues At The Paris Climate Talks, Explained: Closing the emissions gap' (*Climate Progress*, 10 December 2015) http://thinkprogress.org/climate/2015/12/10/3730298/four-stumbling-blocks-paris/>accessed 19 October 2016.

Office of the Press Secretary, The White House, 'Remarks by President Obama at the First Session of COP21' (The White House Official Website, 30 November 2015) www.whitehouse.gov/the-press-office/2015/11/30/remarks-president-obama-first-session-cop21 accessed 19 October 2016.

²⁸ Express News Service, 'Paris Climate Talks Extended a Day as Differences Remain' (*The New Indian Express*, 12 December 2015) <www.newindianexpress.com/nation/Paris-Climate-Talks-Extended-a-Day-as-Differences-Remain/2015/12/12/article3172954.ece> accessed 19 October 2016.

However, to the relief of all, the negotiators arrived at a landmark global agreement, "the Paris Agreement", which would replace the Kyoto Protocol when the Kyoto Protocol's second commitment period ends in 2020.

In the present section, an attempt has been made to analyse the salient features of the Paris Agreement. Broadly, the salient features correspond to the contentious issues that had plagued the negotiators throughout the long period preceding the drafting and adoption of the Paris Agreement in 2015.

RESOLVING THE ISSUE OF THRESHOLD TEMPERATURE

At the very outset of the Paris Agreement, a unique compromise has been affected in respect of the threshold of temperature rise. The Agreement stipulates that the temperature rise is to be contained "well below" the 2 degree Celsius threshold and efforts are required to be undertaken to limit the increase in temperature to 1.5 degree Celsius. It is important to note here that the use of the term "well below" entirely changes the legal mandate from what it would have been if the text would have read, "shall not exceed". This implies that the 2 degree Celsius is not the threshold. The relevant part of the text of the Paris Agreement reads as under:

"(a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change;"²⁹

MITIGATION EFFORTS: UNIVERSAL DUTY, WITH DIFFERENTIATION

In respect of the efforts aimed at mitigation, the principle of equity and CBDR are sought to be maintained. However, there is a marked departure from the legal mandate of the Kyoto Protocol. This can be appreciated through the following points:

1. Unlike the Kyoto Protocol, there is no longer any reference to "Annex I" countries, which are to take emission cuts. Instead, the responsibility of emission cuts has now been spread out to cover all countries, including the developing countries, which had been excluded previously under the Kyoto Protocol. This seems to be a significant achievement for the industrialised countries which had been advocating hitherto to make the developing countries responsible for emission cuts too. As can be seen from

²⁹ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 2(1)(a) http://unfccc.int/resource/docs/2015/cop21/eng/109r01.pdf accessed 19 October 2016.

the following extract of the text of the Paris Agreement, "each Party" is now mandated to carry out mitigation efforts:

- "2. Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions."³⁰
- 2. Unlike the Kyoto Protocol, there are no emission cuts prescribed by the Agreement. Rather, a bottom up approach has been adopted whereby the mitigation efforts are to be reflected in the INDC that have been submitted by the countries under the Lima COP framework. The Paris Agreement accords legal recognition to the INDC and assigns specific importance to these in that they will serve as the guiding factors for emission cuts. This is an achievement for all the countries to some extent: this is because their sovereignty has been respected in deciding on emission cuts rather than forcing a target on them. This is relevant because the countries are best suited to frame their emission cut targets according to their national circumstances. This has been recognised in the beginning of the Agreement itself where the countries' "national circumstances" have been accorded due weightage. As it can be seen from the text of the Paris Agreement, relevant part of which is mentioned as under:
 - "3. Each Party's successive nationally determined contribution will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition, reflecting its common but differentiated responsibilities and respective capabilities, in the light of different national circumstances."³¹
- 3. The fact that the Paris Agreement is a significant compromise is also evident from the fact that the distinction between the developed and developing countries has been duly maintained. This implies that even if the developing countries are no longer immune to legally binding commitments, they have been accorded relaxation in the manner of implementation when it comes to achieving the mitigation targets. This is evident from two factors:
- (a). Firstly, the fact that the countries are to achieve the targets as per their INDC implies that the developing countries can follow their developmental needs and priorities while

³⁰ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015), art 4(2) http://unfccc.int/resource/docs/2015/cop21/eng/109r01.pdf > accessed 19 October 2016.

^{31 &#}x27;The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 4(3) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

taking action against climate change. In fact, the Paris Agreement, at the very outset, has clearly laid down that the principle of CBDR continues to govern the framework for action against climate change. The text reads:

- "2. This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of different national circumstances." (Emphasis supplied)
- (b). Secondly, and very significantly, while the developed countries are required to continue undertaking economy-wide absolute emission reduction, the developing countries are only encouraged to move towards such reduction gradually over time keeping up with their respective national circumstances. This means that although the developing countries are required to undertake efforts aimed at mitigation, unlike the developed countries they have not been mandated to take quantified emission cuts immediately. Following is the relevant portion from the text of the Paris Agreement:
 - "4. Developed country Parties should continue taking the lead by undertaking economy-wide absolute emission reduction targets. Developing country Parties should continue enhancing their mitigation efforts, and are encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of different national circumstances."

The aforesaid is a big relief for the developing countries who had apprehensions of the consequences of the new Paris Agreement considering their concerns about the development programme. For example, India has to fight the challenges of poverty and unemployment so this might restrain initially India's efforts at mitigation, and therefore it would be very unfair to expect her to undertake absolute emission cuts immediately. However, the Paris Agreement has provided enough flexibility for countries like India to pursue their mitigation efforts while also meeting their developmental needs.³³

ADAPTATION EFFORTS: CONCERN FOR VULNERABLE COUNTRIES

In respect of adaptation, the Paris Agreement is quite significant in the manner that it recognises the need for adaptation, especially in respect of the developing countries

³² 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 2(2) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

³³ Amitabh Sinha, 'Paris climate talks: Differentiation of developed and developing stays, India Happy' (The Indian Express, 14 December 2015) http://indianexpress.com/article/india/india-news-india/paris-climate-talks-differentiation-of-developed-and-developing-stays-india-happy/ accessed 19 October 2016.

which are vulnerable to the effects of climate change. The Agreement provides that:

"1. Parties hereby establish the global goal on adaptation of enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the temperature goal referred to in Article 2."34

The Paris Agreement accordingly provides for the setting up of a mechanism whereby the information about efficient adaptation practices could be shared among the parties to the Paris Agreement. This will enable the developing countries to identify and implement adaptation strategies that are most suited to their needs and circumstances. More importantly, the Paris Agreement provides for special assistance to the developing countries in their efforts aimed towards adaptation. The relevant part of the Agreement reads as under:

"6. Parties recognize the importance of support for and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change." ³⁵

FINANCIAL ASSISTANCE: DISCLOSURES IS THE NEW NORM

The financial assistance had been one issue on which the developed countries were hesitant on committing to a specific amount. Rather they wanted the emerging economies to also contribute towards raising the funds of action against climate change. However, the developing countries were unequivocal in their demand for an unambiguous framework of financial assistance under the new legal instrument.

As a result, the Paris Agreement is quite clear about the mandate on the developed countries to contribute towards raising finance for assisting the efforts aimed at both mitigation and adaptation. However, there is an added provision that encourages other parties to contribute to raising finance voluntarily. This is an achievement for the developed countries that can now create pressure on some other countries to contribute towards financial assistance even if that contribution is to be a voluntary one. Although there is no legal obligation under the Paris Agreement as such, this paves the way for bilateral or multilateral negotiations aimed at pressurising all countries but the developed ones to contribute towards the pool of financial resources which have to be

³⁴'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 7(1) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

mobilised for effective action against climate change. The relevant part of the Agreement reads as under:

- "1. Developed country Parties shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.
- 2. Other Parties are encouraged to provide or continue to provide such support voluntarily." 36

However, there is also an element of satisfaction for the developing countries in respect of their demand for a specific commitment on the part of developed countries for financial contributions. Although no specific amount has been earmarked as part of the operative text of the Paris Agreement, a provision has been made for a biennial declaration of specific commitments on the part of the developed countries, for financial contributions. This implies that there will be certainty in the financial assistance segment under the framework of the UNFCCC and the Paris Agreement. The relevant part of the Agreement reads as follows:

"5. Developed country Parties shall biennially communicate indicative quantitative and qualitative information related to paragraphs 1 and 3 of this Article, as applicable, including, as available, projected levels of public financial resources to be provided to developing country Parties. Other Parties providing resources are encouraged to communicate biennially such information on a voluntary basis." ³⁷

For developed countries, the absence of a specific amount for commitment in the text of the treaty itself is a big relief, which provides them with enough flexibility to decide on their respective share of contribution. This is another instance of the bottom up approach that has been followed in drafting the terms of the Paris Agreement.

TECHNOLOGY TRANSFER: CLOSER INTERNATIONAL COOPERATION SOUGHT

The transfer of technology, as mentioned previously in this paper, has been an important

^{35 &#}x27;The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 7(6) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

³⁶ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 9(1)-(2) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf > accessed 19 October 2016.

³⁷ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 9(5) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

contentious issue between the developing and the developed countries. The Paris Agreement has made significant strides in this domain too by encouraging the countries to take a long-term vision on this issue. The Paris Agreement provides for facilitating cooperation between the countries in respect of transfer of technology for undertaking effective mitigation and adaptation efforts. The Agreement reads as under:

"2. Parties, noting the importance of technology for the implementation of mitigation and adaptation actions under this Agreement and recognizing existing technology deployment and dissemination efforts, shall strengthen cooperative action on technology development and transfer."³⁸

Again, the Paris Agreement provides for special assistance for the developing countries in respect of transfer of technology at different stages. The Agreement reads:

"6. Support, including financial support, shall be provided to developing country Parties for the implementation of this Article, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle, with a view to achieving a balance between support for mitigation and adaptation..."³⁹

The Paris Agreement also recognises the need to promote innovation so that the existing technology is improved upon, thereby facilitating efforts towards coming up with newer technology to assist in the global action against climate change. The Agreement reads as follows:

"5. Accelerating, encouraging and enabling innovation is critical for an effective, long-term global response to climate change and promoting economic growth and sustainable development. Such effort shall be supported appropriately(including by the Technology Mechanism) and through financial means(by the Financial Mechanism of the Convention), for collaborative approaches to research and development and facilitating access to technology, in particular for early stages of the technology cycle, to developing country Parties." Emphasis supplied)

The promotion of innovation may have the objective of liberalising the intellectual

³⁸ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 10(2) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

^{39 &#}x27;The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 10(6) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

⁴⁰ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 10(5) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf> accessed 19 October 2016.

property law and competition law regimes in countries where the protection of IPRs and competition is weaker, which in turn discourages innovation.

Capacity Building: Assistance for Developing and Vulnerable Countries

The provision for capacity building is in a sense, the manifestation of the intention to use technology transfer and climate finance to create capacity in countries that do not have the same, to take effective measures towards mitigation and adaptation. This provision is especially pro-developing and least developed countries as it highlights as well as addresses their concern for capacity building to fight climate change. The relevant part of the Agreement reads as under:

"Capacity-building under this Agreement should enhance the capacity and ability of developing country Parties, in particular countries with the least capacity, such as the least developed countries, and those that are particularly vulnerable to the adverse effects of climate change, such as small island developing States, to take effective climate change action, including, inter alia, to implement adaptation and mitigation actions, and should facilitate technology development, dissemination and deployment, access to climate finance, relevant aspects of education, training and public awareness, and the transparent, timely and accurate communication of information." 41

IMPLEMENTATION CONCERNS REGARDING THE PARIS AGREEMENT: AFTER CONSENSUS.WHAT NEXT?

Being an international agreement, it will always be interesting to note how the Paris Agreement could be effectively enforced. Also, one may wonder that given the "bottom up" approach that has been consistently adopted throughout the operative text of the Paris Agreement, how would it be possible to dictate the countries to do what they have actually committed themselves to doing, in their INDC? A "top down" approach towards implementation of the Agreement does not seem appropriate for an Agreement where so much emphasis has been put upon the principles of equity, CBDR, and the national circumstances. In such a scenario, the onus of the implementation of the Paris Agreement falls upon the countries themselves.⁴²

⁴¹ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 11(1)http://unfccc.int/resource/docs/2015/cop21/eng/109r01.pdf accessed 19 October 2016.

⁴² Tyler Hamilton, 'What's next after the historic Paris climate change agreement?'(*The Star*,14 December 2015) <www.thestar.com/news/canada/2015/12/14/whats-next-after-the-historic-parisclimate-change-agreement.html> accessed 19 October 2016.

The Paris Agreement seems to "facilitate" action rather than "regulating" the same. This is evident from the provisions in the Agreement which emphasise on sharing of information between the countries in respect of mitigation, adaptation, climate finance, technology transfer, capacity building, etc. Some of these provisions have been mentioned previously in this section of the paper.

In line with the same, the Paris Agreement has provided for the establishment of a transparency mechanism for action and support so that the countries could regularly share information regarding the carbon emissions in their respective domestic spheres and their progress in achieving the targets of their respective INDC.⁴³ The relevant part of the Agreement reads as under:

- "7. Each Party shall regularly provide the following information:
- (a) A national inventory report of anthropogenic emissions by sources and removals by sinks of greenhouse gases, prepared using good practice methodologies accepted by the Intergovernmental Panel on Climate Change and agreed upon by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement;
- (b) Information necessary to track progress made in implementing and achieving its nationally determined contribution under Article $4.^{\prime\prime4}$

The intention behind such a transparency framework is to utilise the "peer pressure" that the countries will exert over each other for meeting their INDC targets in time. The transparency framework will also enable the information to be shared with media groups, members of the civil society and most importantly, with the citizens of the world, who are the most affected by the effects of climate change. Perhaps, this will enable the issue of climate change to become an electoral issue in many democracies where the fate of the political leaders may come to depend on their promises towards containing climate change, and their action in respect of the same. Although it may be acknowledged that there is no mechanism to ensure that a country in default be penalised, that would have been ineffective given the flexibility inherent in the Paris Agreement itself for the parties to take actions in the light of their national circumstances.

Moreover, another aspect of the transparency framework will be to enable the countries to take stock of the measures taken by the other countries and emulate them when it

⁴³ The Paris Agreement, art 13(1), FCCC/CP/2015/L9/Rev1 http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

⁴⁴ The Paris Agreement, art 13(7), FCCC/CP/2015/L9/Rev 1 http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

comes to best practices adopted. This will enable the achievement of the objectives of the Paris Agreement that relate to adaptation and capacity building.

In addition, the Paris Agreement provides for "global stocktake".⁴⁵ That is, the Paris Agreement requires the countries to take a stock of the collective progress in respect of the objectives of the Agreement. The first such "global stocktake" is required to be taken in the year 2023 and thereafter, the same shall be taken after every five years' period.⁴⁶The Paris Agreement requires the global stocktake to be comprehensive in that it should be in respect of not only mitigation, but also adaptation and "the means of implementation and support", and the basis for the same should be the best available science and the principle of equity.⁴⁷ Among other things, the countries would be able to assess whether their collective efforts will result in containing the average temperature rise "well below" the figure of 2 degree Celsius, and whether the countries would be able to achieve the more ambitious agenda of "1.5 degree Celsius". The countries can accordingly arrive at newer solutions to tackle with the shortcomings in their approach that they find.

CONCLUSION: MILES TO GO BEFORE WE SLEEP!

According to a survey conducted by the United Kingdom based market research group Ipsos Mori, 73 per cent of respondents from all countries agreed that urgent action is required to contain the phenomenon of climate change. 78.6 percent of Indian respondents had the same opinion.⁴⁸

The aforesaid data shows, to a considerable extent, the public awareness regarding the issue of climate change. The adoption of the Paris Agreement is merely the beginning of a new chapter on international cooperation on action against climate change. As seen in the paper itself, the text of the climate change Agreement is one that persuades the countries to take effective action. This element of persuasion has come in useful in creating a consensus in the Paris climate talks, but the same persuasion has added another responsibility on the countries: that of taking timely and effective action by themselves. Therefore, there are voices in the public opinion that are sceptical about the implementation of the Paris Agreement.

⁴⁵ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 14http://unfccc.int/resource/docs/2015/cop21/eng/109r01.pdf accessed 19 October 2016.

⁴⁶ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 14(2) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

⁴⁷ 'The Paris Agreement' (Draft Decision-/CP 21, Paris, 12 December 2015) art 14(1) http://unfccc.int/resource/docs/2015/cop21/eng/l09r01.pdf accessed 19 October 2016.

^{48 &#}x27;Most Indians, Chinese seek urgent climate action, US most sceptical' (The Indian Express, 14 December 2015).

However, being sceptical is of no significance. The next step should be to build upon the mechanisms that have been provided for in the Paris Agreement and march ahead. It is fortunate to note that there are positive signals in this respect. In fact, at the very beginning of the climate change summit in Paris, the Indian Prime Minister Mr. Narendra Modi cooperated with the other countries to form an ambitious "International Solar Alliance", with a view to accelerate the development of alternative and renewable sources of energy so that the dependency on fossil fuels could be reduced, which are the prime source of carbon emissions in the world. ⁴⁹

The International Solar Alliance thus goes on to show that there is a need for more such proactive initiatives at the global level to tackle climate change. Innovation and energetic response is the need of the hour. Fortunately, the blame game and resistance, which had diminished the possibility of an agreement in Copenhagen in 2009, have been overcome successfully in Paris in 2015. The time has come for the countries to take effective action within their respective domestic spheres and cooperate internationally. Moreover, it is time that the media and civil society groups play their role to generate public awareness on the issue of climate change so that the people could bring in pressure on their governments to effectively fight against climate change.

⁴⁹ G Ananthakrishnan, 'Modi launches International Solar Alliance' (*The Hindu*, 1 December 2015) <www.thehindu.com/sci-tech/energy-and-environment/modi-launches-international-solar-alliance/article7934560.ece>accessed 19 October 2016.