ROLE OF INTERNATIONAL CONSTITUTIONALISM FOR MITIGATING EARTH'S CLIMATE CHANGE – LEGAL PERSPECTIVE

Dr. E. MURUGAESAN

Abstract

Role of International constitutionalism, now-a-days, increased to take issues of its own to provide improved qualified living conditions of the people in the World. Indeed international legal regime has offered so many mechanisms that has been eroga omnes principles but these international instruments are considered only in this regard as soft law i.e., declaration, frame work, submission of State reports, nature that would represented as one of the garner participation. The hard law principles i.e., conventions, treaties, more shrinking to participations from these kinds of treaties that the States are feels themselves to participate and ratify treaties. This is warning to that States to pose entire world to warm. This situation urgently warranted to world countries to implement Koyoto Protocol and after taken mandates needs to negotiate with successors members. This is used in use international economic issues. Therefore the issue of climate change is directly involves dramatic changes in human development and well being. This background, international constitutionalism for mitigating earth climate change particularly after the Koyoto Protocol frame work to present scenario of COP21, 2015, and India's role for mitigating climate change.

.....

Key words: Key words: Climate change, International law, Constitutionalism, Mitigation, Protocols and Climate conferences.

I. INTRODUCTION

The Sanfransisco conference has resulted establishment of the United Nations 1945 which came into existence on 24th October on the same year. The International legal order applies to all states in the world. Therefore it has a universal character. It is considered as world constitutionalism because the States are surrendered their sovereignty and formed consciously as international legal order to protect people rights in all aspects through collective mechanism. The role of international law has been increasing for various situations from maintaining international peace and public order to generating basic rights present and future people's right to sustain its earth's climate as human living conditions. The present globe threatens by climate change. Therefore, the climate change has been considered significantly its impact on global environmental challenges in the United Nations Framework convention on climate change (UNFCCC), 1992. It is one of the most important global environmental problems in the world. This kind of threat is brought primarily by human-induced greenhouse gas emission. It tends to collapse human habitation in the earth very soon unless the policy makers quickly respond to mitigation emission of greenhouse gases in all the world countries particularly developing countries. For this purpose United Nation has responded adoption of various measures to mitigation of climate changes and urged all countries to maintain sustain the development for balance between the environment development and economic development.

Author is currently working an Assistant Professor in Constitutional law & International Law (Senior Scale), Government Law College, Madurai, Tamil Nadu, India. E-mail: murugaesan06@gmail.com. Author has presented modified version of this paper in the International Conference on "Geosciences and Environment"& 32nd Annual Convention of Indian Association of Sedimentologists held on 7-10, January, 2016 at Department of Earth Science, Annamalai University, Chidambaram, Tamil Nadu, India.

The 'soft law' treaties have been adopted by U.N. member states but it failed in various commits because of failure of non-implementation. On this background this paper explores historical and scientific background, international legal regime particularly after the Koyato Protocol Frame work to COP21, 2015 and India's role for mitigating climatic change.

II. SCIENTIFIC AND HISTORICAL BACKGROUND

Climatic change is a "significant and persistent change in the mean state of the climate or its variability" caused by changes in the environment (Margaret, 2010; 224). It also changed by anthropogenic modification of the atmosphere. It threatens to the basic element of life of the people in around the world. It adversely affects people as in accesses to water, food production, health and land use and environment (Stern, 2007: VI). The changes in atmosphere effectively affect the people developed and developing countries. The Climatic change is caused by greenhouse gases in atmosphere. The concentration of carbon dioxide (co2) and other gases has increased since second half of the nineteenth century (Stein, 2008: 245). The Scientist has found that huge concentration of Co2 gases were absorbing the earth infrared radiation and it created the greenhouse effect. The earth's average surface temperature has increased 0.6° C since the late 1980's (FCCC, 2006). But there is uncertainty about who was responsible for rising of surface temperature. The scientists have found out that human activities were contributed to this increase. This resulted that the discovery of the stratosphere 'Ozone hole'. Greenhouse gases are a major cause of climate change such as carbon dioxide (Co2), methane (CH4), nitrous oxide (N2o), hydroflurocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SFs) and some other GHGs including water vapor and ozone (O3) occur naturally. These greenhouse gases have responded for depletion of ozone layer. The gases have affected the entire world rather than local. It has a cumulative impact on atmosphere. They

move upward to atmosphere where they remain for long period of time. They are having effect of "transport to terrestrial radiation" (Margaret, 2010:225). The Greenhouse gases absorb terrestrial radiation that leaves the Earth's surface. This is responsible for increased concentration of GHGs. It causes effect of "positive radiative forcing". The positive radiative forcing is responsible for Earth's absorption of energy which leads to increasing temperature in earth's surface i.e. global warming.

Global warming is the "observed increase in average temperature near the Earth's surface and in the lowest layer of the atmosphere" (US Global charge Research Programme, 2009). It is one of the types of climate change. The Inter-Governmental Panel on Climatic Change (IPCC) has stated in 2007 that warming of the climatic system is unequivocal. It causes various impacts on Earth's such as global average air temperature are increasing; eleven of the last twelve years were the warms year since 1850; global average ocean temperature have increased: sea levels are rising; snow and ice coverage have decreased; releasing stored carbon and methane; and precipitation has increased significantly one areas and decreased in other areas. It also caused impact considerably on changes in aquatic and terrestrial ecosystems, agriculture, forestry and human health (Margaret, 2010: 225). This scientific factor influenced to climatic change which tends to threatens future life existing in the planet of the earth. This factual situation urged world communities to mitigate climatic change and to make effort as earth is peaceful life existent one.

The development of the climate region under international law emerged in the late 1980's and early 1990's. The protective mechanism of the earth from climatic change occurred after the discovery of the stratosphere "Ozone hole". The report of the Brundland Commission has stressed to save earth and leave it as possible as to life existent. The report is commonly known as 'Our Common Future' (UNCED, 1992). The report was finally addressed to all the state parties in the United Nations Conference on Environment and Development (UNCED) 1992 in Rio de Janerio. Before this, the first international environment protection wave has culminated in the United Nations Conference on Human Environment, 1972 at Stockholm. The Conference urged all states in the world to protect environment. Therefore U.N. has established the United Nations Environment Programme (UNEP). The main function of the UNEP is to frame policies with respect to particular pollutants i.e., oil spills and dumping of hazardous wastes at sea. The major threat in human environment is a depletion of the stratospheric ozone layer. It may cause loss of biological diversity and global warming due to concentration of more greenhouse gases in atmosphere which focused threat not only on environmental protection per se but it may cause impact on general economic development (Bodansky,1995;23). These factual situations required to 'hard law' convention for mitigation of climatic change in international level. The policy aspects of 'soft law' measures could not achieve the long-term sustainable development human living biosphere of the earth.

III. INTERNATIONAL CONSTITUTIONALISM ON CLIMATE CHANGE

The Earth's atmosphere is being considerably changed at unprecedented level. It was caused by humanities energy consumption. The changes represent a major treat to global health and security of the biosphere. This situation urged world leaders to frame policies quickly and implemented to protect the planet's atmosphere (Zaelke Camerson, 1990: 249). In International level the first steps have been taken for mitigation of air pollution in the atmosphere. These were Trail Smelter Arbitration, 1935 & 1938; Principle 21 of the 1972 Declaration of the U.N. Conference on Environment; the Economic Commission for Europe (ECE), Helsinki Convention on the Long Range Transboundary Air Pollution and its protocol for sulphur reductions, 1985; Part XII of the Law of the Sea Convention; and the Vienna Convention for the protection of the ozone layer and its Montreal Protocol, 1987. These conventions slow actively implemented and respected all nations. The development of the climate changes regime can be dived into five phase until the Kyoto protocol in 1997. The sixth phase may be drawn after the conclusion of the Kyoto protocol, 1975 to Paris Agreement (CoP, 21). The first phase may be called as foundation phase because during this period the scientific concern about global warming developed; the second phase was agenda-setting phase i.e. from 1985 to 1988 during this period climatic change was transformed from a scientific into a policy framing; the third phase was pre negotiation phase from 1988 to 1990 where states were involved in the process leading to the adoption of the FCCC, 2992; the fourth phase to the adoption of the elaboration and implementation of FCCC which lead to the adoption of the Kyoto Protocol, 1997(Bodansky, 1995: 24). The last phase is considered adopting of legally binding instrument and implementing regime.

During the first phase discovered unprecedented increase of Carbon dioxide in atmosphere from fossil fuel emissions. It indicates that "humanity is performing a great geophysical experiment....that may yield far reaching weather and climate" (Ambuj Sagar & Milind Kandlikar, 1997: 3139). During this phase scientist found out the possible interaction between human activity and the climate system and it responded to scientific research related to climatic system.

By late 1980's, the second phase was responded to an increasing consensus in the scientific community about the serious of possible impacts on climate systems. The policy was framed to stabiles the climatic system. This phase urged all countries in the world to frame policies and legal measures to mitigate climate change through negotiations. The fulfilling the object the Intergovernmental Panel on Climate Change (IPCC) and World Meteorological Organization (WMO) was established for the purpose of providing authorities international assessment of scientific opinion on climatic change. IPCC has produced two sets of comprehensive assessment reports which have substantially influenced the world countries enter into international negotiations (IOCC, 1990; IPCC 1996). The fourth phase has focused to implementation of the IPCC reports. During this phase, the climatic change convention was adopted at Rio-de Janerio on 9^{th} May 1992. The main object is to stabilize greenhouse gas concentration in the atmosphere. It is first step was taken by the international community in order to combat climatic change. It was mandated by Article 2 of the climate change convention that "...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 relevant provision of the convention, stabilization greenhouse gas concentrations in the atmosphere". At a level that world prevented dangerous anthropogenic interference with the climatic system...." (UNFCC, Art.2). Article 1 of the convention defines "Climatic change" as a change of climate which is attributed directly or indirectly to human activity that alters the composition of global atmosphere and which is in addition to natural climatic variability observed over comparable time periods"(UNFCC, Art.1)

Article 3 of the UNFCCC provides the "common but differential responsibilities" of the state parties. It urged that "the developed state parties should take the lead in combating climatic change and the adverse effect thereof." Article 4 specifically states that the certain measures to be taken by state parties related that the preparation of "national inventories of anthropogenic emission by sources and removals by sinks of all greenhouse gases which are not controlled by Montreal Protocol. And also it urged the state parties to formulate national or regional programmes to mitigate climate change. These measures are specifically imposed on all state parties particularly developed states, economic in transition and developing states. But these measures should be taken by Annex-I mentioned countries of the developed states and the economics in transition it controlled contemplated under article 4(2) of the convention. Article 4.2(a) and (b) provides that the Annex I parties are to aim to return to this 1990 level of anthropogenic emission of carbon dioxide and other greenhouse gases by the year 2000(M C Givern, 1998:23). It imposed a hortatory obligation on developed states to make a best faith effort to reach this target.

The Berlin Mandate, 1995

The parties to the convention have met at Berlin n 1995. The state parties received its commitments as contemplated under Article 4.2(a) and (b) and further state that as commitment in these ...-articles were not adequate and urged To state parties "to take appropriate action for the period beyond 2000, including the strengthening of the commitments of the parties included in Annexure-I to UNFCC in Article 4(2) (a) &(b) through adoption of legally binding instrument. Therefore the Berlin Mandate has urged state parties to take priority in the process of strengthening the commitments in Article 4(2)(a) & (b) of UNFCC,1992 and also asked Annexure-I mentioned state parties to "elaborate policies and measure" and "set qualified limitation and reduction objectives within specified time frames, such as 2005, 2010 and 2020, for their anthropogenic emission by source and removal by sinks of greenhouse gases not controlled by the Montreal Protocol" (Conference of the parties to the UNFCCC, Berlin, 1995). The Berlin Mandate did not introduce new commitments instead of that it urged state parties to reaffirm existing commitment in Article 4(1) and continue to advance the implementation of these commitments but it lefts the developing countries from this obligation.

The Geneva Ministerial Conference

At this Ministerial Conference of Conference of Parties held at Geneva, 1996. The aim of the conference is to "accelerate negotiations on the text of a legally-binding protocol or another legal instrument." The series mitigating views were expressed and it urged that the legal framework should be based on the Berlin Mandate. Therefore the Declaration is noted that the "outcome should fully encompass the remit of the Berlin Mandate and parties took commitments in line with 'policies and measures,' including "as appropriate, regarding energy, transport, industry, agriculture, forestry, waste management, economic instruments, institutions and mechanisms"(McGivern, 1998: 23). The legally set up of preparatory mechanism was adopted in this Ministerial Conference. These are "quantified legally-binding objectives for emission limitations' and "significant overall reductions within specified timeframes such as 2005, 2010, 2020," with respect to their emissions by sources and sinks of greenhouse gases; and the all parties took commitments to advance the implementation of existing commitment progressively as it contained under Art.4 (1) of UNFCCC,1992. Indeed this Ministerial Declaration contributed to subsequent preparatory meetings up to the Kyoto protocol, 1997.

The Kyoto protocol, 1997

The main purpose of the protocol is as mandate set out under Art. 3 (1) of the UNFCCC, 1992. Art. 3(1) states that "the State parties should protect the climate system..... on the basis of equity and in accordance with their common but differentiated responsibilities (CBDR) and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and adverse effects thereof."(Text of UNFCCC, 1992: Art.3 (1)). The Mandate of Protocol revealed its commitments to mitigate earth's climate change on base of it. It provides that Annex I mentioned State parties "shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions" of specific greenhouse gases and "they do not exceed emit level their assigned amounts." Therefore this protocol urged all State parties to reduce as assigned amounts emission by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012 altogether various mitigating mechanism have been mandated but ultimately this protocol was unaccepted and poor performance. The instrument of the Kyoto Protocol has provided mechanisms to support GHG emissions reductions targets. These are Carbon sinks (Arts. 3(3)& 3(4)), Joint implementation (Art. 6), the Clean Development Mechanism (Art. 12), adaptation (Art.12(18)) and emission trading (Art. 17). The same was accepted by the CoP11 held at Montreal.

Copenhagen-Cancun-Durban Conferences (CoP15, 16 & 17)

The Durban Conference popularly called as the Durban Platform, 2011 fixed deadline 2015 that all states must be arrive a legally binding international agreement on limiting GHG emissions.

Further it state that I will take effect after 2020 so that the average global surface temperature does not breach the guard rail of 2 C or even the more ambitious limit of 1.5 degree C above pre-industrial levels. For achieving this, it is the set of Intended Nationally Determined Contributions (INDCs) by individual member States. It urged all State parties to take detail steps and measures that each State parties to take voluntary steps for achieving the main objective set out under article 2 of UNFCCC. The Ad Hoc Working Group on Durban Platform for enhanced Action (ADP) established under it. It was entrusted with task of arriving at an appropriate negotiating text towards evolving "a protocol, another legal instrument or an agreed outcome with legal force under the convention applicable all state parties". The CoP, 15, 2009 in Copenhagen totally failed due to developed countries hijacked the negotiations and changed track towards a "I-will-do-what-i- can" approach instead of the original coal of arriving at legally binding top-down mandated targets of emission reduction for developed countries. The Post- Copenhagen phases of UNFCCC negotiations the distinction between developed and developing countries gradually eroded and the core principles of the convention especially those of their common but differentiated responsibilities (CBDR) are also practically abandoned. The CoP-16 in Cancun, Mexico, 2010, the basic architecture of bottom-up scheme, premised on unilateral emission reduction commitments by all State parties emerged. These commitments were supposed to be measurable, reportable and verifiable (MRV) but lake of review of these pledges in terms of their inadequacy in guarding against the implementing climate disaster. These pledges were supposed to be for the pre-2020 period, which essentially replaced the top-down perspective Kyoto process, whose second commitment period ends in 2020. After 2020, this unilateral pledge has acquired the new name of INDC. These commitments must be reduced emission 2° C for sustaining earth's temperature.

The Paris Agreement (CoP 21), 2015

The world climate summit in Paris to the United Nations Framework Convention on Climate Change (UNFCCC) marks a major milestone in the efforts of the global community to combat earth's climate change. In this summit 195 States representatives participated. The conference responded to preparation of an international agreement that lays the foundation for future action by all countries to contain and respond to the planetary threat of climate change. The agreement contained two parts: Decision and the agreement consist of 29 articles. This agreement is recognized as one of the most significant transformations in human interactions, technology and landscape. The contentious issues of differentiation, financial support, mitigation action and loss and damages have been incorporated into the agreement. The term differentiation interpreted as maintaining the difference between rich and developing countries in accordance with Art. 3 of UNFCCC by means of common but differentiated responsibilities (CBDR). By providing support for developing countries through finance, technology and capacity-building so they can reduce emissions and adapt to climate change mechanism. The demand of many vulnerable States is that green house gases emissions must be reduced for their sustaining which is required to restrict warming under 1.5°C. The same was accepted and incorporated under Art. 2 of this Agreement and it says that it is one of objective of the Convention to limit increase in global average temperatures to "well below 2°C above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C, recognizing that this would significantly reduce risks and impacts of climate change". The preamble of the Agreement clearly acknowledged that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity. Further it urged developed countries taking the lead, play an important role in addressing climate change.

The Agreement recognized differentiation concept and it has been expanded to include the term *"in the light of different national circumstance".* It is likely to indicate that previously strict firewall between developed and developing countries has been broken down. But it failed to fix historical responsibilities on developed countries. Nevertheless Art.9 of the Agreement imposed financial obligations by means of providing financial resources to assist developing countries with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention. The developed countries are required to take the lead in setting absolute emission targets but the developing countries are "encouraged to move over time towards economy-wide emission reduction or limitation targets in the light of differential circumstances". Under Art.13, "enhanced transparency framework" all countries required to provide updates on their nationally determined contributions every five years starting in 2020. The Agreement has contained a comprehensive periodic review or "global stocktake" of the implementation of this Agreement covering all areas in a "facilitative manner" and "in the light of equity and the best available science" (Art. 14). The importance of loss and damages has been clearly recognized. But there is a demarcation in a decision that this cannot be tied to liability and compensation (Art.8). It implies that there is no guarantee that losses and damages associated with severe weather events directly as a consequence of climate change will receive monetary or non-monetary relief from entities that are identified as defendants. It is comprehensive legally binding documents to all state Parties. Further it has one of the significance that it does not provide reservation of the agreement to the state Parties.

IV. Role of India's Climate Change Policy

India is on path to develop. Economic growth of India faced obstacle because poverty eradication, energy security, and provision of universal access to energy are central and enduring preoccupation of the government of India. India is 130th place in HDI. The people in subcontinent live without adequate bare necessities i.e. electricity connection, low per capita income compared to western countries. Hence India needs to develop all levels par with developed nations. Hence it needs energy demands for development processes and no doubt it will be severely impacts on climate change. These considerations frame the tenor of India's engagement with the international climate regime. India is a party to the United Nations Framework Convention on Climate Change, 1992 and it's Kyoto Protocol, 1997. India contributed to framing of the principle of 'common but differentiated responsibility'. Interpretation of this principle provided the blueprint for the controversial differential treatment contained in the Kyoto Protocol. It urged developed states to take legally binding GHG mitigation targets for 2012 subsequent commitment periods. India is insistent that no legally binding quantities GHG mitigation targets itself and its limited role in contributing to the problem due to its overriding development needs and the historical responsibility of developed States.

In Bali Action Plan, 2007, under the auspices of the Ad Hoc Working Group on Long-term Cooperative Action (AWG-AC), India has opposed a quantitative long-term global goal or a peaking year unless accompanied by an appropriate burden sharing arrangement based on equity and differential treatment for developing countries. In Cancun, India par with BASIC countries introduced the term 'equitable access to sustainable development' and the same was perceived by India in Durban (CoP, 17), that 'equitable access to sustainable development' as signaling the recognition that developing countries need to grow in spite of sustainability and that there must be an equitable allocation of the global carbon budget to enable them to do so. Nevertheless India had offered its national actions to more frequent reporting as well as to a process of 'international consultation and analysis'. India also offered under non-binding Copenhagen Accord to 'endeavor to reduce the emissions intensity of its GDP by 20-25% by 2020 in comparisons to the 2005 level'. This undertaking has been streamlined with UNFCCC's information document taken note of by the Cancun Agreement, 2010. In Durban, India agreed to launch a process titled as the Durban Platform on Enhanced Action to negotiate 'a Protocol, another legal instrument or agreed outcome with legal force under the Convention applicable to all'. This instrument has been adopted in CoP21, Paris, 2015 and implemented from 2020. It is legally binding instrument without any exceptions and reservations.

In this regard, India has introduced a raft measures domestically in the last few years. The Government of India in 2008 launched National Climate Change Action Plan bringing existing and proposed efforts at decarbonisation under eight national missions. These missions are solar energy; enhanced energy efficiency; sustainable habitats; water; the Himalayan ecosystem; sustainable

agriculture; and strategic knowledge for climate change. The relevant Ministries have framed policies and timelines and monitoring and evaluation criteria. For instance, The Jawaharlal Nehru National Solar Mission, also known as National Solar Mission (NSM) approved by the Government of India on 11-1-2010 is a major initiative to promote ecologically sustainable growth while addressing India's energy security challenge and to constitute a major contribution by India to the global effort to meet the challenges of climate change. The NSM set the target of achieving the grid connected solar power capacity of 20,000 MW in three phases i.e. the first phase up to 2012-2013, second phase up to 2013-2-17 and the third phase from 2017 to 2022. In Toto, the government of India's Ministry of Environment, Forest and Climate change submitted to the UNFCCC on October, 2 that emissions intensity (EI) in terms of gross domestic product (GDP) by 33-35 percent by 2030 from the 2005 level. India have obligation under Paris Agreement to specifically the progressive review of goals, monitoring frameworks, and the revised wording of CBDR to consider national circumstances. India through these measures demonstrated a commitment to addressing climate change and its impacts. India also demonstrated a willingness to provide transparency to its international partners in relation to these actions.

V. Conclusion

The role played by International constitutionalism in various negotiation process, conference of parties, conventions and its protocols are to save present generations from climate change related calmatives and save our mother earth's without any change and left it as it is our future generations to enjoy their life. It is urged that world countries to frame necessary binding legal frameworks and monitoring bodies to ensure sustainability of earth's reduced GHG in the atmosphere. Therefore the various negotiations, conferences and conventions require all states parties to develop policies and measures to address climate change. These fixed reduced emission intensity or targets with timelines level but States has done it very little to combat climate change. The climate change regime requires that the state parties should collectively frame action plans and policies through cooperative action by all of the world's major emitters. The role of the international regime is not to define what each state must do but rather to help generate greater political will by raising the profile of the climate change issues and providing greater transparency. Hence all the States in the world must follow the theory of collective action which states that the countries in the world should be willing to do more to combat climate change as part of a legal agreement that provides for reciprocal actions by all the major emitters. Further it asserted that solving the climate change problem may well require a collective agreement among the key contributors. The international constitutionalism based on consus-adidem of the Patties to the Climate Change mitigation conventions which must be consciously followed by the states parties. Therefore this paper suggest that the climate change mitigation convention must be considered as jus cogen principles of international law and part of the customary international. Hence it recognize the international court of justice can take matters pertaining to climate change violated the others right of life in the mother Earths. Further these conventions must be considered as hard law princiles. Therefore finally suggest that the entire CoP must have a liability and compensation clause without which normative clause fruitless.

REFERENCES

[1] Lyser, Rosemary, ed. In the Wilds of Climate Law. Bowen Hills, QLD, AUS: Australian Academic Press, 2010.

[2] Koch, Hans--Joachim, König, Doris, and Sanden, Joachim, eds. Climate Change and Environmental Hazards Related to Shipping: An International Legal Framework: Proceedings of the Hamburg International Environmental Law Conference 2011. Leiden, NLD: BRILL, 2012.

[3] Verheyen, Roda. Climate Change Damage and International Law: Prevention Duties and State Responsibility. Boston, MA, USA: Brill Academic Publishers, 2004.

[4] Latin, Howard A.. Climate Change Policy Failures: Why Conventional Mitigation Approaches Cannot Succeed. Singapore, SGP: World Scientific Publishing Co., 2012.

[5] Cohen, Stewart J., and Waddell, Melissa W.. Climate Change in the 21st Century. Montreal, QC, CAN: MQUP, 2009.

International Journal of Scientific & Engineering Research, Volume 7, Issue 7, July-2016 ISSN 2229-5518

[6] Falkner, Robert. Handbooks of Global Policy: Handbook of Global Climate and Environment Policy. Somerset, NJ, USA: John Wiley & Sons, 2013.

[7] Healey, Justin, ed. Issues in Society, Volume 375: Climate Change Crisis. Thirroul, AUS: The Spinney Press, 2014.

[8] Clarke, Matthew. Post-Kyoto: Designing the Next International Climate Change Protocol. Hauppauge, NY, USA: Nova Science Publishers, Inc., 2008.

[9] McInerney-Lankford, Siobhan, Darrow, Mac, and Rajamani, Lavanya. World Bank Studies : Human Rights and Climate Change : A Review of the International Legal Dimensions. Herndon, VA, USA: World Bank Publications, 2011.

[10] Margaret Rosso Grossman, Climate Change and the Law, The American Journal of Comparative Law, Vol. 58, Supplement: Welcoming the World: U. S. National Reports to the XVIIIth International Congress of Comparative Law (2010), pp. 223-255.

[11] Brendan P. McGivern, Conference of the Parties to the Framework Convention on Climate Change: Kyoto Protocol, International Legal Materials, Vol. 37, No. 1 (January 1998), pp. 22-43.

[12] Jana von Stein, The International Law and Politics of Climate Change Ratification of the United Nations Framework Convention and the Kyoto Protocol, Journal of Conflict Resolution Volume 52 Number 2 April 2008 243-268.

[13] James Cameron& Durwood Zaelke, Global Warming and Climate Change – An Overview of the International Legal Process, American University International Law Review Volume 5 | Issue 2.

IJSER