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**Climate Change Negotiations and Third World Countries  
(Past, Present and Future)**

A thesis  
submitted in fulfilment  
of the requirements for the degree

of

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at

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**Saeed Nasir**



THE UNIVERSITY OF  
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## **Abstract**

International response to tackle climate change resulted in the establishment of the Intergovernmental Panel on Climate Change 1992 (IPCC), entrusted with the task to present scientific findings to develop international legal framework on climate change. IPCC presented four reports and fifth report is around the corner which successively endorsed the climate change phenomena, its impacts and vulnerabilities of the different regions mostly inhabited by the third world countries. International efforts to tackle the climate change phenomenon resulted in the designing of the United Nations Convention Framework on the Climate Change 1992 (UNFCCC) embedding different environmental principles and the most pivotal one was the principle of common but differentiated responsibilities reinforcing the historical responsibilities notion of the developed countries to help developing countries in terms of finance and technology. This principle remained the guiding principle of UNFCCC negotiations since 1992 between developed and developing countries and got legal expression in the Kyoto Protocol 1997 (upto 2012 and extended up to 2020 on interim basis to frame new agreement by 2015, applicable by 2020) to UNFCCC which prescribed compulsory obligations to developed countries and provided cushion of time allowance for developing countries obligations to reduce the carbon emissions; the real objective of UNFCCC and the financial help and technological transfer for adaptation and mitigation the carbon emissions. Unfortunately, developing countries could not effectively implement the climate change obligations and could not equip themselves to put themselves on the path of sustainable development resultantly having stalled round of negotiations in each year Conference of Parties (COP) except in COP 17 at Durban 2011 where it was principally agreed that new regime or agreement needed to be sketched by 2015, to be applied by 2020, applicable to all parties (moving away from the cornerstone principle of common but

differentiated responsibilities) but developing countries started interpreting the cornerstone principle in such a manner and terms to suit them like the common but shared responsibilities according to historical sharing towards carbon emissions for each country which choked the negotiation process and endangered the negotiation for new international climate treaty to tackle climate change horrendous effects on the earth eco-system.

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I am under tonnes of weight to offer my heartfelt thanks to Professor Alexander Gillespie whose unflinching support, kind consideration, guidance on each step, and very swift solutions to my different problems made this humble effort to see the day of the light. All thanks rather many thanks and gratitude sentiments could only be offered to Professor Alexander Gillespie who afforded the brunt of my difficult and terrible health issues; undoubtedly his contribution surpassed the contribution of my family members who remained available every inch in this long process providing the logistics support and emotional support with indefatigable spirits. I present millions salute to Prof. Gillespie and my family members for their MOUNTANIOUS PATIENCE.

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## Table of Abbreviations

ADP	Durban Action Platform
AOSIS	Association of small island countries
AR4	Fourth Assessment Report
AWG-KP	Ad hoc Working Group-Kyoto Protocol
AWG-LCA	Ad hoc Working Group-Long-term Communication Action
BAP	Bali Action Plan
CO <sub>2</sub>	Carbon Dioxide
CBD	Convention on Biological Diversity
CBDR	Common But Differentiated Responsibilities And Respective Capabilities
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COPs	Conference on Parties
EIT	Economies in transition
EU	European Union
GEF	Global Environment Facility
GNP	Gross National Productivity
GHG	Green House Gases
HDI	Human Development Indicator
HFCs	Hydro Fluorocarbons
IMF	International Monetary Fund
IISD	International Institute for Sustainable Development
ICJ	International Court of the Justice
IPCC	International Panel on Climate Change
ITLOS	International Tribunal for Law of the Sea
LDCs	Least Development Charges
N <sub>2</sub> O	Nitrous oxide
OECD	Organization for Economic Co-operation and Development

PFCs	Per fluorocarbons
SAR	Second Assessment Report
SIDs	Small Island developing states
TRIPS	Agreement on Intellectual Property Rights
TAR	Third Assessment Report
UNFCCC	United Nations Framework Convention on Climate Change
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Programme
UNGA	United Nations General Assembly
UNCLOS	United Nations Convention on the Law of the Sea
UNSC	United Nations Security Council
WEO	World Economic Outlook
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

# 1. Introduction

This research study aims to suggest the ways and mechanisms which can help the developing countries to actively participate in climate change negotiations. Climate Change has been identified the most serious environmental problem being encountered by the mankind. It will take into account the particular nature of developing countries, specifically embedded preferential treatment for developing countries in international environmental regimes, key international principles designed to deal with developing countries with appraisal of global legal framework on climate change (UNFCCC and Kyoto Protocol) focusing on lukewarm response of developing countries in climate change negotiations with the specific and emphasized need for their active involvement in climate change negotiations.

These themes are the relevant and major issues to be explored and dealt in this research study.

Climate Change has attracted significant and commendable attention in recent years.<sup>1</sup> It ranges from the Nobel peace award<sup>2</sup> to the Climate Change Conference in Bali December 2007,<sup>3</sup> Climate Change Conference 2008 in

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<sup>1</sup> Climate Change BBC centre, New Evidence on Antarctica Warming

<http://www.bbc.co.uk/climate/>,

Climate chief warns against 'tragic' inaction by developed countries, CNN news channel, Climate Change,

<http://edition.cnn.com/2008/TECH/science/08/20/pachauri.climate.talks/index.html#cnnSTCText>, [Economist](http://www.economist.com); Talking Climate Change, IPCC, "Climate change is a very complex", <http://www.ipcc.ch/about/index.htm>, UNFCCC, Climate Change, which is directly 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, Article 1(2) of UNFCCC,

[http://unfccc.int/essential\\_background/convention/background/items/2536.php](http://unfccc.int/essential_background/convention/background/items/2536.php)

<sup>2</sup> The Nobel Peace Prize 2007, "The Norwegian Nobel Committee has decided that the Nobel Peace Prize for 2007 is to be shared, in two equal parts, between the Intergovernmental Panel on Climate Change (IPCC) and Albert Arnold (Al) Gore Jr. for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change." [http://nobelprize.org/nobel\\_prizes/peace/laureates/2007/press.html](http://nobelprize.org/nobel_prizes/peace/laureates/2007/press.html)

<sup>3</sup> Bali Action Plan or Bali Road Map adopted at Bali Conference 2007, a two year negotiation plan for Copenhagen 2009 to negotiate a new protocol to the convention after the expiry of Kyoto Protocol in 2012, [www.unfccc.int/files/meetings/cop\\_13/application/pdf/cp\\_bali\\_action](http://www.unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action).

Ponzen, Poland<sup>4</sup> with highly emphasized focus on forth coming conference at Copenhagen in December 2009.<sup>5</sup> All such efforts in negotiations are directed to deal a problem posing threat to not only present generations but also “generations yet unborn”.<sup>6</sup> The magnitude of the problem has been endorsed at number of occasions and recently has been underscored in “Human Development Report 2007/2008” of United Nations Development Programme (UNDP) in the following words.

“Climate change is the defining human development issue of our Generations. All development is ultimately about expanding human potential and enlarging human freedom..... Climate change threatens to erode human freedoms and limit choice. It calls into question the Enlightenment principle that human progress will make the future look better than the past.”<sup>7</sup>

This research study is significant due to lukewarm response of developing countries to deal with climate change challenges as per legal requirements of international environmental regime. Their half-baked approach to deal with this issue is mainly due to much-drummed argument that environmental protection and economic growth is “mutually exclusive.”<sup>8</sup> It is essential to curb

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<sup>4</sup> UNFCCC, parties make “a clear commitment from governments to shift into full negotiating mode next year in order to shape an ambitious and effective international response to climate change, to be agreed in Copenhagen at the end of 2009. Parties agreed that the first draft of a concrete negotiating text would be available at a UNFCCC gathering in Bonn in June of 2009.” It advanced international cooperation on a future climate change regime and brought progress on key issues by giving a much clearer sense of where World need to go in designing an outcome which will spell out the commitments of developed countries, the financial support required and the institutions that will deliver that support as part of the Copenhagen outcome,”[http://unfccc.int/meetings/cop\\_14/items/4481.php](http://unfccc.int/meetings/cop_14/items/4481.php)

<sup>5</sup> World Community is anxiously waiting for this significant event as it will bring new negotiated deal with the shared vision of all countries to have new protocol to the convention after the expiry of Kyoto Protocol in 2012.

<sup>6</sup> Sumudu Atapattu (Associate Director, Global Legal Studies Centre, University of Wisconsin Law School in the article presented in IUCN 2008 conference; Climate Change, Equity and Differentiated Responsibilities: Does the Present Climate Regime Favor Developing Countries?

<sup>7</sup> Human Development Report 2007/208 <http://hdr.undp.org/en/reports/global/hdr2007-2008/>

<sup>8</sup> Ben Boer, R. F., Neil Gunningham. (Ed.). (1994). *Environmental outlook: law and policy*. Sydney: Federation Press. It is noted (by Frances Sindico in Climate and Trade in a Divided World: Can Measures Adopted in the North End Up Shaping Climate Legislative Frameworks in the South?—Conference paper) that developing countries confront double and conflicting challenges for sustainable development and participation in climate control. In climate change regime, it is being asked to adopt mitigation and adaptation measures but their approach is yet to be matured in these areas and more emphasis is placed on their

emissions despite its location as emission coming from any part of the planet has the same deadly potential to affect the climate change.<sup>9</sup> The UNFCCC places more responsibility on developed nations to reduce the emissions due to their industrial progress, technical innovations and skills and sound social and political setup to implement the environmental agenda coupled with healthy financial resources<sup>10</sup> where as the developing countries are given cushioning provisions<sup>11</sup> keeping in view their deficiency in capacity building, technology development and facing the problems of over-population. But as it is pointed out those greenhouse gas emissions does not create localized environmental problem and subsequent hazards, it is equally necessary to introduce tough regime and targets for developing countries to reduce their emissions which are alarming due to their fast paced industrial progress, population explosion and not having the capacity to deal with disasters.<sup>12</sup>

It is noteworthy that environmental regimes have become the foundation stone to build other regimes of international law like international trade rules which have triggered the issues of compliance and implementation of such international regimes in developing world while taking into account of their

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development to reduce poverty. It leads them towards conflict with other countries even in development front which hamper their development. It is essential, at this critical time, to realize them that their active efforts in the participation of climate change regime (efforts + negotiations) will save them from major disasters, recently noted in IPCC 4<sup>th</sup> Assessment Report (AR4), available at <http://www.ipcc.ch/ipccreports/ar4-syr.htm>.

<sup>9</sup> Ibid

<sup>10</sup> UNEP.(2002). *Global Environmental Outlook 3*. London: Earthscan.

<sup>11</sup> Mechanisms of Assistance, Adaptation, Technology Transfer in UNFCCC and further development in Kyoto Protocol Joint Implementation, Clean Development Mechanism, and International Emissions Trading. It is notable that developing countries do not have obligations under the convention and its protocol to reduce emissions or quantified limitations. There is no reduction emission obligations even in Kyoto Protocol on developing countries in the period of 2008-2012 available at <http://unfccc.int/resource/docs/convkp/kpeng.pdf>

<sup>12</sup> Bodansky, D. B., J & Hey, E. (Ed.). (2007). *The Oxford handbook of international environmental law*. Oxford ; New York: Oxford University Press. Due to these reasons, the legal concept of equity is embedded in UNFCCC, 3<sup>rd</sup> article which states that “the climate system for the benefit of present and future generations of mankind, on the basis of equity and in accordance with their common but differentiated responsibilities.”—Article 3, PRINCIPLES [http://unfccc.int/essential\\_background/convention/background/items/1355.php](http://unfccc.int/essential_background/convention/background/items/1355.php)

sovereignty.<sup>13</sup> It is also notable that financial aid flowing from developed country parties is not being dispensed by developing countries as it is required. It is also identified that developing world is confronted with the compliance and enforcement issues of environmental teaching and legislation.<sup>14</sup>

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<sup>13</sup>Vig, R. S. A. D. L. D. a. N. J. (Ed.). (2005). *The Global Environment Institutions, Law, and Policy*. Washington, D.C.: CQ PRESS. It is notable that trade patterns are stitched with "Sustainable development and protection and preservation of the environment", quoted on WTO website, endorsed in Marrakesh Agreement, [http://www.wto.org/english/tratop\\_e/envir\\_e/envir\\_e.htm](http://www.wto.org/english/tratop_e/envir_e/envir_e.htm). It is also noteworthy that in spite of emphasis on preserving the environment, there is no specific agreement dealing with trade under WTO regime. WTO implements it through its objectives, rules and enforcement mechanisms coupled with a committee on Trade and Environment. In the same tune, World Bank places high degree of emphasis on environment through its programmes "Global Environment facility" " Montreal Protocol and Ozone Depleting substances", "Corporate Environmental and Social Sustainability", "Persistants Organic Pollutants", "Carbon Finance", devotes an independent division on environment under vice-president and publishes the outstanding material (on all environment related dimensions) based on latest data. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/0,,menuPK:176751~pagePK:149018~piPK:149093~theSitePK:244381,00.html>. Similarly, Asian Development Bank (ADB) identifies environmentally sustainable growth as a key strategic development agenda, and environment as a core area for support, stated on its website, <http://www.adb.org/Environment/default.asp>. It also incorporates environmental objectives in loan grants, technical assistance for environmental impact assessment, environmental analysis of countries, with vast range of publications to supports its climate change Programme In the same tune, number of other organizations, which are mandated to address health care, disaster relief, poverty reduction, food security and sustainable development, also address climate change issue in their policies. These include Food and Agriculture Organization (FAO) which works to eradicate hunger but "in the area of climate change, the Organization contributes to the debate by assessing the available scientific evidence, participating in observing and monitoring systems, collecting unique global datasets, promoting adaptation and mitigation practices and by providing a neutral forum for negotiations and technical discussions on climate change and agriculture.", stated in its mission statement, <http://www.fao.org/climatechange/49358/en/> and World Health Organization (WHO) which works on health issues but also addresses climate change issue while dealing with human health issues at global level. It termed "Climate change is a significant and emerging threat to public health," and proposed "changes the way we must look at protecting vulnerable populations." <http://www.who.int/globalchange/climate/en/>

<sup>14</sup> Supra n 1, it is noted that developing countries confront with capacity building issues in teaching, policy-making, implementing and legislating the legislations. AkeredoluAlero (Mrs.) asserted in her conference paper, presented at IUCN conference in 2008, a dire need to "consider challenges involved in developing a climate change Law curriculum and proffer probable solutions to same". IUCN academy distinguished members also developed syllabi for environmental law teachers. <http://www.iucnael.org/content/view/94/30/lang.english/>

Therefore, it is a significant issue how to evolve such mechanisms which can actively involve the developing countries in climate change negotiations while taking into account the prevailing ground realities.<sup>15</sup>

Chapter 2 is to define first the nature and genesis of the developing countries specifically in the context of the climate change problem. It presents the rigorous analysis of IPCC findings in its reports with full and specific focus on Fourth Assessment Report (AR4). It carries the in-depth analysis of the tremendous work of scientists, presented in three volume, prepared and scholarly contributed by three working groups. It also overviews the impact of climate change on developing countries and highlights the contribution of developing countries in the negotiations on climate change and the role of developing countries to counter this problem and its impact countries. It also defines the developing country from the international law angle. It defines international law, its principles, sources and the role and relationship of the developing countries with the international law rules and norms. It describes the recognition of environmental issues, environmental debates, economic traditions underlying the environmental issues particularly the 'growth' debate while focusing on sustainability issues from the perspectives of the developing countries. Section five is the introduction and discussion on climate change and developing countries with the detailed discussion on United Nations Framework Convention on Climate Change (UNFCCC) 1992. It also attempts to define the genesis of the climate change with detailed analysis of the Intergovernmental Panel on Climate Change (IPCC) scientific reports with pointing references to developing regions in the following section (section six). In the last, it presents detailed and exhaustive discussion on climate change sectoral impacts and vulnerabilities for developing countries.

Chapter 3 presents the developing countries in the context of international environmental issues, laws, and principles. It looks at international

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<sup>15</sup> Bali Action Plan endorsed the need for the first time to devise a strategy specifically for developing countries to undertake nationally appropriate mitigation actions, supported and enabled by technology, financing and capacity-building, in a measurable, reportable and verifiable manner." [www.unfccc.int/files/meetings/cop\\_13/application/pdf/cp\\_bali\\_action](http://www.unfccc.int/files/meetings/cop_13/application/pdf/cp_bali_action).

environmental law specifying the environmental problems (Ozone-depletion, hazardous substances, fresh water resources, energy issues, biodiversity, and food issues) while focusing on the special position of the developing countries. It also specifically focuses on the fundamental/key principles of international environmental law (Common but differentiated responsibilities,<sup>16</sup> precautionary principle,<sup>17</sup> polluter pays principle,<sup>18</sup> Information and Assistance,<sup>19</sup>) coupled with the state sovereignty principle of customary international law. It looks at environmental problem in three categories; air pollution, ozone depletion, and the climate change. These three issues are presented first in scientific contexts followed by international legal regimes and developing countries positions. It endeavours to highlight the vulnerabilities of developing countries and special treatment accorded to these countries in international environmental treaties and regimes. Its also talks about those sectors affected by the climate change and issues arose in the developing world. It specifically discusses two issues; freshwater resources and agricultural issues for developing countries and regions. It looks at land desertification and drought issues, international efforts to frame United Nations Convention and differentiation between the developed parties and the developing parties. It also deals with polar region laws and aims to underscore the non-cooperation role of developing countries while highlighting the need the cooperation and exchange of information in the implementation of international environmental law. It views five environmental law principles having their relevance with the developing countries and its last part tackles the debate of the sovereignty principle and its application with environmental principles.

Chapter 4 aims to critically appreciate the efforts of the World community to address the climate change problem in the legal domain through international regime which admirably tries to accommodate all groups of nations with respective treatment. This chapter will present in depth analysis and critical

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<sup>16</sup> Principle 7 of Rio Declaration

<sup>17</sup> Principle 15 of Rio Declaration

<sup>18</sup> Principle 16 of Rio Declaration

<sup>19</sup> Principle 18 of Rio Declaration

view of UNFCCC and its Kyoto Protocol with Conference of Parties to highlight the incorporated mechanisms, applicable to developing countries with their current obligations. This chapter is in sequence of preceding chapters with a view to bring out the essence of legal problem, faced by developing countries in climate change negotiations coupled with outlining the need to seek the active support and contribution of developing countries.

Chapter 5 views the whole debate of the CBDR principle and presents mechanism to develop global specialized agency to respond to international climate negotiations and issues. Developing Countries not only remained passive in handling climate change negotiations and climate change agenda but also insisted on carrying out the same passive mode in recent years and also aim to maintain this position for the future proposed climate change treaty by 2015 on the pretext of the Principle of differential responsibilities, placing the blame and burden both on the shoulders of developed countries for historical emissions and also not only to tackle the emission reduction with innovative technologies but also providing financial assistance to developing countries for their economic development, uplift of societies by eradicating poverty and dealing with energy crisis.

This delicate and subtle linkage between the economic development agenda of developing countries on one hand and reducing carbon emissions efforts and fighting with its outfall on their societies by developed countries resulted in almost stalling the international climate change negotiations. Disgruntled and frustrated sounds have been voiced to dismantle the entire international climate change architecture due to “agreements of all to disagree only” in all climate talks meeting and proposing to start efforts outside UNFCCC, or regional efforts through alliances or handling climate change at local level through traditional knowledge and indigenous solutions but equally getting sound voices in favor of not only maintain the UNFCCC and the work of COPs and its bodies but also strengthen the global institutional mechanisms by working hard to sail with all players and stake holders and by accommodating the concerns of all and taking everyone on board by

genuinely addressing the grievances of all parties in order to iron out the differences and hammer out the international agreement which should be 'acceptable to all' at least if not 'applicable to all.'

This last chapter of this thesis aims to view the cushion of differential treatment since its inception and the genesis of its inclusion into climate change talks with its legal recognition in international law whether it is legally binding principle for the State Responsibility doctrine or only a moral and ethical obligation resulting only stalling the climate change agenda. It also critically views the dimensions to tighten up the CBDR framework or ending it altogether in the new proposed international climate treaty by 2015 and then finally to propose the mechanism for effective and sincere contribution of developing countries in climate change negotiations where everyone participates with agreement under one 'mitigation tent' which would be legally binding coupled with accountability mechanism for violating the Climate Change Law; the answer to research question of this research study; designing the international treaty which could be acceptable to all and not applicable to all coupled with specialized agency for international climate change law governance with arms of accountability and dispute resolution forum.

## **2. Defining Developing Countries in International Law: Confronting Environmental Issues, Vulnerabilities and Climate Change Impacts**

### **2.1 Introduction**

This chapter aims to define first the nature and genesis of the developing countries specifically in the context of the climate change problem. It presents the rigorous analysis of IPCC findings in its reports with full and specific focus on Fourth Assessment Report (AR4). It carries the in-depth analysis of the tremendous work of scientists, presented in three volume, prepared and scholarly contributed by three working groups. It also overviews the impact of climate change on developing countries and highlights the contribution of developing countries in the negotiations on climate change and the role of developing countries to counter this problem and its impact countries. It also defines the developing country from the international law angle. It defines international law, its principles, sources and the role and relationship of the developing countries with the international law rules and norms. It describes the recognition of environmental issues, environmental debates, economic traditions underlying the environmental issues particularly the 'growth' debate while focusing on sustainability issues from the perspectives of the developing countries. Section five is the introduction and discussion on climate change and developing countries with the detailed discussion on United Nations Framework Convention on Climate Change (UNFCCC) 1992. It also attempts to define the genesis of the climate change with detailed analysis of the Intergovernmental Panel on Climate Change (IPCC) scientific reports with pointing references to developing regions in the following section (section six). In the last, it presents detailed and exhaustive discussion on climate change sectoral impacts and vulnerabilities for developing countries.

## 2.2 Developing Countries: Definitional Dilemma

The definition of developing countries attracted voluminous scholarly debate due to its vast usage in social sciences subjects. This term “the developing countries” is not very old rather its substituted term “the third world” was first used by Alfred Sauvy in 1955.<sup>1</sup> Since then, these terms are in use interchangeably to refer those countries or nations which have low standard of living and infrastructure.<sup>2</sup> Though, there is no single recognized scholarly definition of this concept<sup>3</sup> due to different interpretation in different perspectives.<sup>4</sup> A political science perspective is “a group of states attached neither to the capitalist camp nor to the communist bloc rather a group of non-aligned countries.”<sup>5</sup> An economist perspective is a group of countries having “common characteristics of underdevelopment.”<sup>6</sup> It is notable that in spite of these common characteristics, no two developing countries can be presented in contrast to each other due to different levels of development.<sup>7</sup>

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<sup>1</sup>N.J.Udombana. (2000). The Third World and the Right to Development: Agenda for the Next Millennium. *Human Rights Quarterly*, 22

<sup>2</sup>Sheffrin, A. S. a. S. (2003). *Economics: Principles in Action*. New Jersey: Pearson Prentice Hall.

<sup>3</sup> Ibid

<sup>4</sup> Supra n 1- The Chinese intellectuals also forwarded the theory of the “three worlds”. They referred USA, USSR as first world, China, The Western European states, Japan, Canada and Australia as the second world and all the developing countries are grouped as “Third World

<sup>5</sup> Ibid

<sup>6</sup> Ibid

<sup>7</sup>as some developing countries have high standard of living and infrastructures like Gulf States. Broadly, the developing countries are further divided into two groups on the basis of development. One group comprises of African countries especially sub-Saharan African states and Latin America states. The other group is made up of middle to high income countries. It can be further classified. Japan stands for high income and modern development. It excels in manufacturing goods and now referred as developed nation. Hong Kong, Singapore, South Korea and Taiwan are popularly known as “Four Tigers”. Malaysia and Thailand are the new industrialized countries. These countries fall in the category of the developing states/countries despite of their good per capita income but the question of discussion is what makes the developed country a developed one and what makes the country a developing one. It is identified that development is a many sided process but in its economic sense, it is “the vision of better life, a life materially richer, institutionally more modern and technologically more efficient and an array of means to achieve that vision.” Economic growth boasts development, though not in all cases, but it is not the only condition to raise the level of the society. Economic growth does not make one a developed country; it

It is worth mentioning that this concept is better understood while defining the concept of the developed countries. A developed country is defined as a “country that allows all its citizens to enjoy a free and healthy life in a safe environment”<sup>8</sup> but again it is identified that there is no single recognized and designated concept for the definition of the developed countries.<sup>9</sup> United Nations Statistics Division recognizes that this categorization is not for any “established convention for the designation of “developed” and “developing” countries or areas in the United Nations system.”<sup>10</sup> It is noted that this categorization is “intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process.”<sup>11</sup> It is interesting to note that different organs of United Nations<sup>12</sup> apply this categorization in different manner instead of “statistical convenience.”<sup>13</sup> Their different application of this designation is critically viewed in the following sub-sections.

### **2.2.1 Developing Countries: the World Bank Definition**

The World Bank defines the developing countries according to economic perspectives due to its operational and analytical purposes.<sup>14</sup> Its basis of classification is gross national income (GNI), the substituted term

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is the capacity of tackling the disaster by remaining in its own resources and by not compromising its social fabric---As stated in Denis, G Development: Creator and Destroyer of Values in Human rights in the Twenty-First Century: A Global Challenge (1993) and United Nations, Department of Economic and Social Welfare Statistics Division, Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings, <http://unstats.un.org/unsd/methods/m49/m49regin.htm#ftnc>

<sup>8</sup> Kofi Anan, former Secretary General, United Nations, [http://www.unescap.org/unis/press/G\\_05\\_00.htm](http://www.unescap.org/unis/press/G_05_00.htm)

<sup>9</sup> Supra n 8, United Nations Statistics Division,

<sup>10</sup> Ibid, it is stated on United Nations website that “in common practice, Japan in Asia, Canada and the United States in northern America, Australia and New Zealand in Oceania, and Europe are considered “developed” regions or areas. In international trade statistics, the Southern African Customs Union is also treated as a developed region and Israel as a developed country; countries emerging from the former Yugoslavia are treated as developing countries; and countries of eastern Europe and of the Commonwealth of Independent States.” <http://unstats.un.org/unsd/methods/m49/m49regin.htm#ftnc>

<sup>11</sup> UN, Department of Social and Economic Affairs, Standard Country, Area Codes for Statistical Use, <http://unstats.un.org/unsd/methods/m49/m49.htm>

<sup>12</sup> World Bank, IMF, UNFCCC.

<sup>13</sup> Supra n 8

<sup>14</sup> The World Bank, Country Classification, <http://www.worldbank.org>

from gross national product (GNP).<sup>15</sup> It classifies all those countries as developing countries which have GNP per capita less than US\$11,905.<sup>16</sup> It can be considered the fairly specific institutionalized definition of an international organization. It considers referring “low-income and middle-income economies as developing countries”<sup>17</sup> but at the same time points out that the usage of this term is only for convenience purpose and not intended to refer all economies in the group having the same experience of development as developing countries.<sup>18</sup> It specifically refers to those countries which have reached in the final stage of the development but not demonstrated the signs of the developed countries. These countries are grouped by the new term of “newly industrialized countries.”<sup>19</sup>

It is stated that this classification is not the reflection of “development status”<sup>20</sup> because the bank groups its 183 members on the basis of geographical locations, income group, and lending criteria and this grouping is reviewed every year in July.<sup>21</sup> It is evident that the World Bank classifies the countries according to their incomes<sup>22</sup> for its operational reasons but this classification is based on the annual compilation of data about development.<sup>23</sup> It is notable that 2009 World Development Indicators (WDI) contains more than 900 indicators in 91 organized tables for 6 sections including the World View, People, Environment, States and Markets, and Global Links.<sup>24</sup> It is not possible to critically view these indicators due to the scope of this project but it is evident that compilation of statistical data is to provide the

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<sup>15</sup> Ibid

<sup>16</sup> It includes low and middle income countries and classified in 2008.

<sup>17</sup> Ibid

<sup>18</sup> Ibid

<sup>19</sup>Bozyk, P. (2006). Globalization and Transforming of Foreign Economic Policy.London: Ashgate

<sup>20</sup> Supra n 14

<sup>21</sup> Ibid

<sup>22</sup> The World Bank classifies countries into four income groups. Low income countries have GNI per capita of US\$975 or less. Lower middle income countries have GNI per capita of US\$976–\$3,855. Upper middle income countries have GNI per capita between US\$3,856–\$11,905. High income countries have GNI above \$11,906, <http://www.worldbank.org>

<sup>23</sup> The World Bank, World Development Indicators 2009, <http://www.worldbank.org/>

<sup>24</sup> Ibid

“comprehensive overview of the development”<sup>25</sup> scale of the countries and Environment is one of the major bench marks of this statistical analyses.<sup>26</sup> This discussion also highlights that groupings of countries are configured upon development and the size of economies coupled with populations.

## 2.2.2 Developing Countries: International Monetary Fund (IMF) Definition

International Monetary Fund (IMF) is an organization of 186 member countries with an aim of working to “foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.”<sup>27</sup> Its working involves surveillance,<sup>28</sup> lending,<sup>29</sup> and technical assistance<sup>30</sup> through research and statistics. It is notable that IMF also classifies the countries in developed (advanced economies) and developing countries (emerging and developing economies) couple with another group of countries known as “countries in transition”<sup>31</sup> and newly developed countries<sup>32</sup> in the World Economic Outlook (WEO).<sup>33</sup>

It is notable that this classification is not made “on strict criteria, economic or otherwise, this classification has evolved over time with the objective of facilitating analysis by providing a reasonably meaningful organization of

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<sup>25</sup> Ibid

<sup>26</sup> Ibid—this data is for 153 economies with populations of more than 1 million. There are other 56 smaller economies less than 1 million but more than 30000 provided they are the World Bank member.

<sup>27</sup> IMF, About the IMF, <http://www.imf.org/external/about.htm>

<sup>28</sup> involves the monitoring of economic and financial developments, and the provision of policy advice, aimed especially at crisis-prevention. , <http://www.imf.org/external/about.htm>

<sup>29</sup> Lending to countries with balance of payments difficulties, to provide temporary financing and to support policies aimed at correcting the underlying problems; loans to low-income countries are also aimed especially at poverty reduction. , <http://www.imf.org/external/about.htm>

<sup>30</sup> providing the training in its areas of expertise, , <http://www.imf.org/external/about.htm>

<sup>31</sup> countries in Central Asia (Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Turkmenistan) and Mongolia, but noted that in international reports, these countries are regarded as developing countries.

<sup>32</sup> Cyprus, Malta, Slovenia, and Israel,---World Economic Outlook, World Economic and Financial Surveys, 2009, <http://www.imf.org/external/pubs/ft/weo/2009/01/weodata/groups.htm#ae>

<sup>33</sup> Ibid-April 2009

data.”<sup>34</sup> It is mentioned that this organization applies a flexible classification system by considering the per capita income level, export diversification,<sup>35</sup> and degree of integration into the global financial system.<sup>36</sup> This discussion highlights that IMF country classification is flexible enough and not a strict watertight compartment grouping of the World Bank but it is evident that economic factor is the driving indicator behind the country classification.

It is identified from the above discussion development of the country is the only fundamental and pivotal factor for defining the developing and developed countries. It is also evident that economic development is not the only criteria to draw a line of distinction between the developed and developing countries or have and have not. It needs other factors as well like life expectancy, literacy, and educational opportunities on the statistical index to measure up the development of any country. It is notable that the United Nations Development Programme (UNDP) has developed a Human Development Indicator (HDI) which is a “process of widening the options of persons, giving them greater opportunities for education, health care, income, employment”<sup>37</sup> with the purpose “to measure a country's development.”<sup>38</sup> It can be argued that developing countries are those countries which have not achieved industrial independence and capacity to develop their systems and mechanisms couple with low standard of living and high population.<sup>39</sup>

The forth coming section examines the relationship of developing countries with international law. It is notable that both terms are evolutionary in nature and attracted voluminous scholarships in defining the basic concepts and dimensions. Most of the developing countries were colonized and after the era of decolonization formulated this relationship.

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<sup>34</sup> Ibid-WEO-2009-FAQ

<sup>35</sup> This indicator is meant for oil exporter whose export volume is increased by 70% due to oil export which makes their GDP high per capita so that these countries cannot make advanced classification.

<sup>36</sup> *IMF.WEO 2009, FAQ. How does the WEO categorize advanced versus emerging and developing economies?* <http://www.imf.org/external/pubs/ft/weo/faq.htm#q4b>.

<sup>37</sup> UNDP, Human Development Reports, [http://hdr.undp.org/en/mediacentre/news/title\\_15493\\_en.html](http://hdr.undp.org/en/mediacentre/news/title_15493_en.html)

<sup>38</sup> Ibid

<sup>39</sup> Ibid

### 2.2.3 Developing Countries: Relationship with International Law

Generally, the World is divided in two groups of countries; developed countries and the developing countries and it has been discussed above the different efforts to define or the parameters of the both groups. Apart from those efforts and discussions, this section simply examines the relationship of the developing world with the rules of international law. In the first subsection, it is viewed how the third world states appeared on the globe; the process in international law and relations and then the attitude of this part of the World with the international law.

#### 2.2.3.1 Decolonization Process—Birth of the Third World/Developing Countries

Third world countries mostly appeared after the Second World War and the composition of the international community started changing due to decolonization process.<sup>40</sup> This process got strengthened from the principle of the self-determination appeared in the United Nations Charter and the two International Human Rights Covenants.<sup>41</sup> It is notable that the colonial empires<sup>42</sup> started disintegrated due to political and freedom movements resulted in the political independences of Syria (1945), Lebanon (1946), India and Pakistan (1947), Israel and Burma (1948), Indonesia (1949), Libya (1951), Tunisia, Morocco, Sudan, and Ghana (1956), Malaya (1957), and Guinea (1958). This process started at the birth of the United Nations culminated in 1960 when the United Nations General Assembly (UNGA) adopted the landmark Declaration on the Granting of Independence to Colonial Countries and Peoples.<sup>43</sup> It is noteworthy that there were around 130

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<sup>40</sup> It is political process to undo the colonies which gave birth to number of the new states; mostly states witnessed freedom movements due to political awareness spreading during the reign of the colonization process. A. Bleckmann (1992) "Decolonization." Encyclopedia of Public International Law 01

<sup>41</sup> human rights covenants ICCPR and ICCHR

<sup>42</sup> colonial powers name

<sup>43</sup> [www.un.org/Depts/undersec/da/declaration.htm](http://www.un.org/Depts/undersec/da/declaration.htm) Declaration link

states in 1960 and half of them were newly-born or created states from the colonial folds which caused profound effect on the horizons of international law, relations and the politics. These states also affected the operation of the international organization due to their peculiar characteristics of the under developed or developing states.<sup>44</sup> It is noteworthy that at the same time of the history (around 1945), the Soviet Union created the socialist bloc comprising of German Republic, Poland, Bulgaria, Hungary, Romania, Czechoslovakia, former Yugoslavians states by maintaining its economic hegemony.<sup>45</sup>

In the initial years, the United States remained under the control of the Western States but as African and Asian states started emerging in the international community, the UNGA landscape changed and divided into the communist bloc with the newly created states of the Third World; whereas the western states maintained its control in the United Nations Security Council (UNSC) and in the Brettonwood Institutes.<sup>46</sup> It is noteworthy that in the World Bank and the IMF, the voting waightage is according to the financial share and the western world dominated these institutes to use their economic power.<sup>47</sup> In the same tune, the western world remained dominant in the military alliances at the international level.

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<sup>44</sup>K.Ginther (1982)."Liberation Movement." Encyclopedia of Public International Law 03

<sup>45</sup>Uibopuu, H. J. (1986). "Socialist Internationalism" Encyclopedia of Public International Law 9

<sup>46</sup>Brettonwood points to the World Bank group, International Monetary Fund and International Finance Commission

<sup>47</sup> Schulte, S. S. (1994). "The World Bank's New Inspection Panel: A Constructive Step in the Transformation of the International Legal Order." Heidelberg Journal of International Law 54

### 2.2.3.2 Developing Countries and International Law

It is considered very difficult task to categorize newly created states as developing countries generally for the purpose of the international law due to lack of commonalities among all. Developing countries of Asia, Africa and Latin America formed a group known as the Group 77<sup>48</sup> for the purpose of common representation in the international community and organizations but their ideological basis varies across the board. They were and still are different in political structures, cultural considerations, and economic matters and even in religious issues. All these variations run in the basis of their ideology and prevent in the efforts of cohesion but overall there are few facts which forced these countries to adopt common approach towards international law.<sup>49</sup> It is important point to consider that almost all these states remained under colonial or alien rule at the formative period of international law and could not play any role or contribute the opinion in the process of shaping the international law.<sup>50</sup> Their leadership persistently voiced at international forums that they are bound by those set of international rules in which they were not party or they did not play any role in the formation of those rules. It is quite interesting to observe their objections and concerns; their argument is normally against those rules which are against the interests of the newly-created states. It is not possible for any such state to reject all those rules which were developed and matured before their independence because most of the rules operate to their interest and advantage like the right to self-determination and human right covenants.<sup>51</sup> It is also pertinent to

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<sup>48</sup>Group of developing countries having mostly common characteristics of colonial period and inadequate developmental infrastructure

<sup>49</sup> Wang Tieya----

<sup>50</sup> Frederick E. Snyder, S. S., Ed. (1987). Third World attitudes toward international law: an introduction. Dordrecht, Martin Nijhoff Publishers

<sup>51</sup> Ibid

mention that these states practice the international rules in regulating their affairs with outer world.<sup>52</sup>

It has been very common feature of developing countries to adopt different positions in international matters according to their own vested interests and to prefer the international rules accordingly like countries in South who were desirous to develop their economies on the socialist patterns, opposed the international rule which prohibited the expropriation of foreign-owned property without compensation but countries sitting on the other side of the pendulum, very well accepted the traditional rule as a vehicle of encouraging the private investment.<sup>53</sup> This rule attracted significant debate in the past in the North-South relations but it is established fact that the economic interests of the developing countries have always been the cornerstone in their attitudes towards the rules of international law like if their economy depends upon the local fisheries, naturally it affects their position in the Law of the Sea and it has been their practice to claim over wide territorial waters or asking exclusive fisheries zone in the exclusive economic matters.<sup>54</sup>

It is also a dominant trend of the developing countries to press the western or richer states more monetary help in addressing their issues of poverty and economic development. UNGA and other international gatherings provided them a platform to voice their grudges and consequently they started asking for the "New International Economic Order" and "New International Communication Order." This was one of the main reasons for the United States and the United Kingdom left UNESCO.<sup>55</sup> Third World countries also tried to get extra cushions in "Common Heritage of the Mankind", "Deep-Sea Mining", and "Outer Space Use" are the few areas to mention. Third World has also received special treatment in multilateral negotiations on trade and

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<sup>52</sup>Atmadja, M. K. (1992). "The Contribution of New States to the Development of International law." Santa Clara Law Review 32

<sup>53</sup>Shahabuddeen, M. (1994). Developing countries and the idea of international law. Essays in honour of Wang Tieya. R. S. J. e. Macdonald. Dordrecht, Martinus Nijhoff Publishers

<sup>54</sup>Verwey, N. J. S. a. W. D. (1984). "The Taking of Property under International Law: A New Legal Perspective." Netherlands Yearbook of International Law 15

<sup>55</sup>R. Caldera (1986). "The juridical basis of a new international order." Recueil Des Cours: Collected Courses of the Hague Academy 96.

environment respectively. It can be argued that these newly created states or developing countries or the third world have developed an attitude to strive to change international law, its rules, principles and mechanisms which are not suitable to them.<sup>56</sup> They remained successful in getting cushions in the Agreement on Intellectual Property Rights (TRIPS), United Nations Framework Convention on the Climate Change 1992, and the favouring provisions in the international trade treaties. Apart from these, they remained successful in getting the recognition to the "right to the development" in the 1993 Vienna Human Right Conference which says that "right to development is a universal and inalienable right and an integral part of fundamental human rights."<sup>57</sup>

It is notable that these states have developed the feelings of resentment towards developed countries due to the past exploitation during the colonial period. This exploitation argument is normally advanced when their leadership is reluctant to accept non-favourable rules and it is drummed that they are not responsible for those obligations which the colonial powers have accepted on their behalf before independence.<sup>58</sup> Therefore, these states nurse the feelings of exploited and often feel that international law is the body of the rules which only serve the western states by sacrificing their interests to the developed world. This feeling force these states to demand in the modification of the international law but unfortunately it are not possible to break the international law without consensus which is itself a difficult thing to achieve.<sup>59</sup> Though, most of the non-favoured rules have either changed or in the process of the change; therefore, this accusation that international law sacrifices their interests no longer holds the water.<sup>60</sup>

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<sup>56</sup> Ibid

<sup>57</sup> It is the principle 10 of the 1993 Vienna Declaration

<sup>58</sup> A. Cassese (1989) International Law in a Divided World. Clarendon Press

<sup>59</sup> S. Rosenne (1992). "Codification of International Law." Encyclopedia of Public International Law 01

<sup>60</sup> R. Wolfrum (1995) "International Law of Cooperation." Encyclopedia of Public International Law II

It is evident from the detailed discussion in the above section 3 that international law is the process of evolution and has come to the present stage due to the state practice over the many hundred years. It has material sources (treaties, custom, judicial decisions, general principles of law, soft law and the acts of international organization) which is itself a huge body spreading over the years. It accommodates the decolonized states equally but the newly independent states feel disgruntled due to previous exploitation of the colonial masters and have developed an attitude that international law serves the interests of the developed nations and sacrificed their interests. These states try to exert influence at international forums to modify the non-favored rules and remained successful in getting cushions in multilateral agreements on trade and environment. They also press the western states for the monetary aid to address the poverty and development issues.

### **2.3 Developing Countries and Surrounding Environmental Issues in the context of International law**

Defining the environment triggered various concepts concerning the human development, common concern of the humanity, rights of future generation, environmental security, common heritage of mankind, and common but differentiated responsibilities. These concepts attracted huge volume of scholarly debate and most of them have got legal expressions in various local, national, regional, and international legal instruments but the most significant of all is the sustainable development debate and its concept. It can be argued that all concepts crystallized together in it and the debate of this concept divided the international community; developed and the developing countries. This division is distinctive enough to be appeared in legal texts and flowing debates at international forums. It is notable that this debate is not new and it changed only its name and the underlying concept is the same. Similarly, the concerns for the developing countries are not new. In 1948, Mahatma Gandhi enquired that “it took Britain half the resources of the

planet to achieve its prosperity; how many planets will a country like India require?”

If we look at this concept in its historical context, it is revealed that the legacy of the scientific and industrial revolution followed the paradigm of the ‘conquest of nature’ and its consequences affected the lives massively. It divided the world in two zones; the North and the South. The later one became the victim of the quest for economic growth and consumerism of the former one.<sup>61</sup> It is noted that the quest for economic growth is considered the “continuation of the economic imperialism”<sup>62</sup> which was carried out by the colonized countries in established empires in the earlier times. In fact, this economic imperialism, the driving force of the ‘conquest of the nature’ is the systematic expression for the dominance of the particular economic system; the capitalism of the west.<sup>63</sup> It is noteworthy that environmental issues have been criticized according to prevalent economic tradition or theory (Imperialism<sup>64</sup>, Utilitarianism<sup>65</sup>, Stewardship<sup>66</sup>, and Romanticism<sup>67</sup>). These traditions remained in the background to critically assess environmental issues due to close rather very close linkages with economic matters. A brief analysis of these traditions will help us to assess and understand the different attitude of the third world countries towards international law rules and its branches.

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<sup>61</sup> Smith, P. a. W., K (1991) Sustainable Development and Equity London, Hodder and Stoughton/Open University

<sup>62</sup> Edward Goldsmith, Environmental and Social Critic

<sup>63</sup> Ibid

<sup>64</sup> The Legacy of Descartes, Bacon, and Locke

<sup>65</sup> After Jeremy Bentham, the nineteenth century philosopher, It aimed for achieving the greatest good for the greatest number through the utility of actions—a philosophy of working for the common good

<sup>66</sup> It points that human beings have a position of special responsibility towards nature and found mainly on indigenous philosophies and was also present in the Judeo-Christian which was the driving force of ‘resource conservation’ ethic. It became strong towards the end of the nineteenth century and has become the driving force for “environmental decision-making in this century.”

<sup>67</sup> It extended intrinsic value to nature and opposite of the imperialist thinking which triggered the conservation movement. It started taking poetic expressions in the nineteenth century romantic poets who gave idea of wild nature and the led to the establishment of such organizations as the American Wilderness Society.”

### 2.3.1 Appraising the Economic Traditions for Assessing the Environmental Issues

In the last two hundred years, the imperialist and the utilitarian traditions remained dominating the global economic scene. Industrial Revolution affected the landscape and the lives of people which were recorded not only by the poets, historians but also by the hard-headed business men like James Naysmith (the inventor of the steam hammer) whose own description about the impact of his own iron workings is worth to quote that

“the grass has been parched and killed by vapours of sulphureous acid thrown out by the chimneys; and every herbaceous object was a ghastly grey—the emblem of vegetable decay in its saddest respect.”<sup>68</sup>

It is not difficult to notice the guilt conscious of the successful business man who earned profit at the expense of the destruction or ruining the nature. This industry based economy transformed the English economy from an agrarian and trade-centered to a fully industrial society which introduced the ‘industrial capitalism’ and where ‘profit’ was regarded the pivotal factor.<sup>69</sup> It led to money based economy leaving aside the concern about the product or the end result but opening the doors for new markets, cheap labour, and the new sources of the material. It is also not difficult to assess that it was the birth of the world predicted by Adam Smith in 1776 in his remarkable piece of the work ‘The Wealth of Nations’ with the notion of creating wealth which would ultimately ‘trickle down’ to the poor.<sup>70</sup> This trend developed the trade between the colonial powers and the colonies but the design of the economic structures favored the colonial masters; capital accumulated in the colonies was withdrawn which started turning the colonies into underdeveloped areas, regions or nations. This process enabled capitalism to destroy local economies, their self-sufficiencies, and their trade patterns in order to meet

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<sup>68</sup> William, R. (1995). "Socialism and Ecology" Capitalism Nature Socialism 06(01)

<sup>69</sup> Supra n 211

<sup>70</sup> Ibid

the colonizers requirements. Therefore, immediately after Indian Independence, an Indian environmentalist concluded that “the last forty years of development in India have shown that the trickle-down theory is dead; it does not work.”<sup>71</sup>

It is noteworthy that the same colonial pattern is in continuation where the poorer countries’ resources are taken away like forest timbers or minerals or natural herbs for medicines except that colonizers role are being played the transnational or multinational companies. It is noteworthy to witness the revival of the ‘populist’ movement of the nineteenth century which advocated working with the nature on small scale developments. The famous economist Fritz Schumacher also referred this movement in his philosophies and now it has been extended to the ‘deep ecology’ movement with attempts to fuse socialism with ecology as a ‘green politics’ movement.<sup>72</sup>

On the other side, former USSR also exploited the natural resources to the fullest for technological development, space exploration, and joining the nuclear race until the Chernobyl disaster struck.<sup>73</sup> This disaster brought realization and recognition about the natural degradation in the former USSR but the fall of communism brought this realization and recognition about the natural degradation to the full extent.<sup>74</sup>

### **2.3.2 Recognizing the Environmental Economics**

In the eighteenth century, it was realized that industrialization and population growth were the contributing factors in environmental degradation. This realization was endorsed by the economists as well like Thomas Malthus who recognized the theoretically possibilities of scarcities hitting the world and the famines threatening the mankind in his famous work “An Essay on the

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<sup>71</sup>Smithu Kothari, Indian Environmentalist, said when asked if after independence, India would attain British standards of living.

<sup>72</sup> Ibid

<sup>73</sup> Nuclear reactor disaster setting new safety parameters

<sup>74</sup> Now, the soviet scientists described the 16% of the total land as a disaster zone.

Principle of Population as it Affects the Future Improvement of Society”<sup>75</sup> The realization of this rationale was due to Industrial Revolution which cropped up the rise of economic thought bringing changes in social fabric, growth in population causing the social and economic chaos. These chaotic changes started causing serious concern about the future fate of civilization which contributed in developing a new discipline known as political economics in order to address the resource utilization in a judicious manner with social well being.<sup>76</sup> This new discipline is regarded the foundation stone for the birth of the environmental economics. Thomas Malthus was concerned about the population growth, decreased availability of resources with the enhanced efforts required to obtain them.<sup>77</sup> He made predictions about the wars, plagues and famine which would reduce the human numbers to be repeated in cycles.

John Stuart Mill was another socialist philosopher who made the similar predictions in his most important work ‘The Principles of Political Economy’<sup>78</sup> about the increased population and wealth which could not continue unchecked but also believed that at few times, a steady or stationary state could be there where both population and consumption stabilized with the possibility of the lower level of human happiness.<sup>79</sup> In this way, Mill advocated a voluntary less consumptive existence which is not implied stationary improvement of humans as mankind could improve its mental faculties, moral levels and social progress.<sup>80</sup>

In the end of the nineteenth century, the neo-classical school of economists gave the abstract models of market economies which ultimately became the basis of the today economics. Its purpose was to establish a well-functioning

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<sup>75</sup>Malthus, T. R. (1798). An Essay on the Principle of Population as it Affects the Future Improvement of Society. Library of Economics and Liberty London

<sup>76</sup> De Steiguer, J. E. (1995). "Three Theories from Economics About the Environment." Bioscience 45(08)

<sup>77</sup> Thomas Malthus predicted about the dwindling rather diminishing marginal returns for farmers due to population growth and the cost to feed the increased population would dominate the economy.

<sup>78</sup> Mill, J. S. (1848) The Principles of Political Economy London, Longmans, Green and Co.

<sup>79</sup> Ibid

<sup>80</sup> Ibid

and efficient market to achieve the maximum satisfaction. It established the price structures based on production and consumption at optimum levels. It is considered the classical approach of the economics but it is greatly flawed as it failed to address the pollution issues affecting the human welfare and the environment. These issues were considered the external factors not related to the market transaction<sup>81</sup> but now these factors known as 'environmental externalities'<sup>82</sup> are beginning to be included into economic assessments.<sup>83</sup>

It is also noteworthy that during the 1970s, the Malthusian thinking was resurgent and took expression in the movement of the 'Limits to Growth.'<sup>84</sup> The core argument of this 'Limits to Growth' was anti-growth position like Thomas Malthus foresaw the basic problem of exponential population growth coupled with industrial output as compared to the finite resources.<sup>85</sup> Malthus espoused that the population cannot exceed resources, population will grow up the levels of their food supply; increasing food yield will increase population and eventually population will be contained by famine or disease.<sup>86</sup> In this way, the Club of Rome advocated the Malthusian Principle believing that some pre-emptive or coercive action whether natural or man-made is essential to control population and conserve resources. In the same decade, The Ecologist presented a gloomy future but with a vision of hope and presented an alternative future. It provided a road map in its last section 'the goal' how to achieve a stable and sustainable society. It says that

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<sup>81</sup> Supra n 226

<sup>82</sup> Climate Change due to deforestation, smoke-churning chimneys, fossil fuel burnings, and many other factors costing the environmental damage to be started including in the agenda of the corporate world.

<sup>83</sup> These environmental externalities established the remedies as well like taxes to reduce environmental damage.

<sup>84</sup> Limits to Growth was the joint effort of the coalition of bankers, industrialists, humanists, economists, and educators joined together as a non-political group, known as the Club of Rome, <http://www.clubofrome.org/eng/about/1/>

<sup>85</sup> Supra n 225

<sup>86</sup> Supra n 227

We have seen that man in our present society has been deprived of a satisfactory social environment. A society made up of decentralized, self-sufficient communities, in which people work near their homes, have the responsibility of governing themselves, of running their schools, hospitals, and welfare services, in fact of constituting real communities, should, we feel, be a much happier place. Its members, in these conditions, would be likely to develop an identity of their own, which many of us have lost in the mass society we live in. They would tend, once more, to find an aim in life, develop a set of values, and take pride in their achievements as well as in those of their community.<sup>87</sup>

This proposition continued in the years to come. Another Economist Fritz Schumacher also referred to the economic growth causing social and environmental problems by beating the argument that the growth can cure these problems.<sup>88</sup> It is noted that Schumacher was particularly concerned with the appropriate economic growth for the Third World.<sup>89</sup> In the same manner, the Club of Rome published another master piece in 1992 'Beyond the Limits: Global collapse or a sustainable future' which outlines six steps to avoid ecological and social collapse.<sup>90</sup> All steps were in tune with the direction towards sustainability. It also pointed out three areas which required completely new thinking.<sup>91</sup>

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<sup>87</sup> The Ecologist, "Blueprint for Survival", 1972, vol.2, no.1, 'The Goal', <http://www.theecologist.info/key27.html>

<sup>88</sup> Schumacher, F (1993) *Small is Beautiful: People Mattered* London, Vintage

<sup>89</sup> He foresaw the possibility of the repeated mistakes of the western nations with worse consequences and established the Intermediate Technology Institute (IT) to assist Third World countries to develop their own intermediate and appropriate technologies.

<sup>90</sup> Six steps were 'Improve the signals', 'Speed up response time', 'Minimise the use of non-renewable resources', 'Prevent the erosion of renewable resources', 'Use all resources with maximum efficiency', 'Slow and eventually stop exponential growth of population and physical capital

<sup>91</sup> These are 'Poverty', 'Employment', 'Nonmaterial needs'.

### 2.3.3 Recognizing Growth for Environmental Protection--Sustainability Challenge

The debate for growth attracted very interesting and scholarly input from the clubs, alliances, and the economists. It is not possible to view all these views<sup>92</sup> due to voluminous debate of different angles and the different nature of the scope of this essay. As this debate grew, the notion of sustainability gained credence. The growth in population and industrial capital is exponential rather super exponential.<sup>93</sup> The Agricultural Revolution, 800 years before, provided ways for better life and increase in the population.<sup>94</sup> The Industrial revolution created markets for humans which connected them. The industrial capital and agricultural produce grew fast but consumerism of industrialized countries and population explosion of third world consumed rather over consumed the resources which contributed in the excessive exploitation of resources and environmental degradation.<sup>95</sup>

Technological solutions have been presented to mitigate the economic, social, and environmental concerns but solutions also brought new problems, unforeseen to humanity. Environmental problems are solved but eclipsed by the increase in the population and the development of new clean mechanisms. Technological solutions cannot reverse the environmental degradation or replenish the natural resources. Technological advancements also generated social inequality which leads to numerous social problems.<sup>96</sup>

World population was 0.5 billion in 1650, 1.6 billion in 1900, 3.6 billion in 1970, 5.4 billion in 1990,<sup>97</sup> 6.4 billion in 2004.<sup>98</sup> It will be 8.9 billion in 2050. The world is getting 7.6 million persons per year. 96% of this projected growth

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<sup>92</sup> Three major perspectives were 'the eccentric perspective', 'technocentric perspective', and the 'neo-Marxist perspective'.

<sup>93</sup> Meadows, Donella H. Randers, Jørgen. Meadows, Dennis L. *Beyond the Limits* (Vermont: Chelsea Green Publishing Company, 1992) Ch. 2

<sup>94</sup> Ibid Ch 8

<sup>95</sup> Supra at 1

<sup>96</sup> Gillespie, A *The Illusion of Progress: Unsustainable Development In International Law* (London: Earthscan, 2001) Ch.02, P 21-23.

<sup>97</sup> Supra at 1

<sup>98</sup> <http://www.unfpa.org/swp/2004/english/ch1/page7.htm#1>

is from developing countries whereas the population of Europe and Japan is declining fast and this decline will be doubled by 2015.<sup>99</sup> This fast growing population is set to devour natural resources coupled with making it difficult to deal with poverty and the food issue either on land or ocean.<sup>100</sup>

Economic growth is considered the panacea of all ills including poverty issue. It also addresses the environmental concerns but the exponential growth in population overrides all the solutions.<sup>101</sup> More people, more resource consumption as Thomas Malthus projected and more damage to World Climate as increasing population is the driving force in the increase of emissions of Green House Gases.<sup>102</sup>

It was realized that it is the challenging task to utilize earth resources in sustainable manner to maintain the balance in eco-system. It prompted the global reaction towards the resource exploitation which enabled the peoples to frame their attitude towards sustainability and its constituents.<sup>103</sup> Though, the canvass of this debate is very big to be encompassed here; it is worthwhile to view the World Bank's World Development Report 1992. It acknowledged that the "earth's resources are limited and so is the absorptive capacity of its sinks"<sup>104</sup> but at the same time advanced an argument that the compensatory ability of substitution, technical progress, and structural changes are enough measures not to restrict the "growth of human activity."<sup>105</sup> This argument was relied on the fact that the prices of the

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<sup>99</sup> Ibid

<sup>100</sup> Gillespie, supra n 16 at 1

<sup>101</sup> Ibid

<sup>102</sup> IPCC, Special reports on Climate Change, Emissions Scenarios, Ch.3, <http://www.grida.no/climate/ipcc/emission/049.htm>.

<sup>103</sup> Issues of Resource Depletion and Degradation (Loss of biological diversity, land resources, water resources, Fisheries, Forests and timber, Energy Resources, Mineral Resources), Issues of Pollution and Wastes (Atmospheric pollution and climate change, Marine Pollution, Pollution of inland waterways, Land and soil pollution), Issues of Society and Human Condition (Population growth, Food security and hunger, Shelter, Rapid urbanization, Health and disease, Lack of skills, education and empowerment, Debt, trade and poverty, Security and the military industry, environmental refugees)

<sup>104</sup> The World Bank, World development report 1992 : development and the environment, Volume

1, [http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000178830\\_9810191106175](http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469372&piPK=64165421&menuPK=64166093&entityID=000178830_9810191106175)

<sup>105</sup> Ibid

minerals declined over the last 100 years and their supply would remain effectively infinite.<sup>106</sup> This argument supports economic growth and development with affordable environmental protection but it is refuted in “Whose Common Future 1993”<sup>107</sup> on the following five grounds.

1. The rising income in one country often causes environmental damage to other countries.
2. The rising income, particularly in the South, is typically accompanied by growth in the numbers of marginalized people.
3. There is additional environmental damage to generate money to clean up environmental mess.
4. There are impressive gains due to continued growth gained in efficient manner and clean production but meaningless.
5. The notion that accumulated wealth can cure the environmental damage is often based on figures showing the number of people without safe water declining due to rise in per capita income whereas the wealth cannot bring back lost species, an altered atmosphere, and ruined soil.

### **2.3.4 Sustainable Development: From Stockholm to Rio**

It is identified from the above discussion that the growth in population and economics debate extended to the environmental protection with sustainability and then silently the term ‘sustainable development’ was in fashion in the last decade. Since the publication of ‘Our Common Future’ known as Brundtland Report<sup>108</sup>, this term has been described in such a

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<sup>106</sup> Ibid

<sup>107</sup> Ecologist, T. (1993) Whose Common Future?

<sup>108</sup> *Our Common Future* (the Brundtland Report) was developed by the United Nations World Commission on Environment and Development (WCED) and published in 1987. In establishing the commission, the UN General Assembly recognized that environmental problems were global in nature and determined that it was in the common interest of all nations to establish policies for sustainable development. The report precluded the convening of the 1992 Earth Summit in Rio De Janeiro and the establishment of the Commission on Sustainable Development. *Our Common Future* is also known as the Brundtland Report in recognition of former Norwegian Prime Minister Dr. Gro Harlem Brundtland's role as Chair of

manner truly to be called a new orthodox and also has been described as an 'oxymoron'. The reason for so much discussion of this term is its problematic nature to be defined. It has been defined over and over again.<sup>109</sup>

The Brundtland Report argued that poverty, resource depletion and environmental stress are the direct result from disparities in economic and political power. The report advanced following objectives for sustainable development;

- Reviving economic growth
- Changing the quality of growth
- Meeting the essential needs for jobs, food, energy, water, sanitation
- Ensuring a sustainable level of population
- Conserving and enhancing the resource base
- Re-orienting technology and managing risk
- Merging environment and economics in decision-making processes.<sup>110</sup>

In 1972, The Stockholm Conference on the Human Environment revolved around two moral principles; environmental responsibility and social justice.<sup>111</sup> It provided the references of developing countries and declared that "most of the environmental problems are caused by under-development."<sup>112</sup> It directed the developing countries to focus their efforts to development according to their priorities (adequate food, clothing, shelter, education, health, and sanitation) by taking into account "the need to safeguard and improve the environment."<sup>113</sup> It is quite interesting that the Third World countries strongly debated these views and the conference concluded on the criteria which stated that "integration of conservation and development, satisfaction of basic

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the World Commission on Environment and Development" stated on <http://www.ourcommonfuture.org/>

<sup>109</sup> Shiva, V (1992) Recovering the real meaning of sustain ability. *The Environment in Question: Ethics and global issues*. D. E. C. J. A. Palmer. London, Routledge.

<sup>110</sup> Ibid

<sup>111</sup> UNEP, Declaration of the United Nations Conference on the Human Environment, Stockholm 1972,

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=97&ArticleID=1503>

<sup>112</sup> Ibid

<sup>113</sup> Ibid

human needs, achievement of equity and justice, maintenance of ecological integrity and biological genetic diversity, with provision for self-determination and cultural diversity”<sup>114</sup> It is very interesting to note that in spite of the all these declarations and commitments about taking up the agenda of the sustainable development at Stockholm, it has been observed that growth rate doubled while poverty scale increased fivefold since 1950s which negated the argument that continued and unabated growth rate could be the only solution to wipe out or deal with poverty or poverty related issues.<sup>115</sup> Whereas the Brundtland Report outlined the objectives for sustainable development which were reviving the growth; changing the quality of growth; meeting the essential needs for jobs, food, energy, water, sanitation; ensuring a sustainable level of population; conserving and enhancing the resource base; re-orienting technology and managing risk; merging environment and economics in decision-making processes<sup>116</sup> which formulated the vision for sustainable development and called for the policies by recognizing the need for economic growth, seeking to maximize growth in such a manner not to marginalize the vulnerable people and the depletion of the future viability of the resource base.<sup>117</sup>

It is notable that this approach of Commission on sustainable development received severe criticism and triggered disputes by the eco-centric supporters. These groups took this approach as a contradiction in terms; an open door to business as usual; and contrary to the traditional notions of sustainability of population and nature.<sup>118</sup> In the same manner, the only agreed definition of the sustainable development (meeting the needs of the present without compromising the ability of future generations to meet their own needs) attracted concerns and fears for too many interpretations which could be used politically for no real changes. These concerns and fears were

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<sup>114</sup> Ibid

<sup>115</sup> Shiva, V (1992). Recovering the real meaning of sustain ability. The Environment in Question: Ethics and global issues. D. E. C. J. A. Palmer. London, Routledge

<sup>116</sup> Supra n 261

<sup>117</sup> Smith, P. a. W., K (1991) Sustainable Development and Equity, *Global Environmental Issues* London, Hodder and Stoughton/Open University

<sup>118</sup> Supra n 265

immediately materialized when business groups like International Chamber of Commerce started interpreting the definition according to their own interests. However, the definition focused on 'needs' which ultimately made a stronger case for equity both intergenerational and intergenerational.

In 1991, the new "World Conservation Strategy" jointly produced the document by UNEP, IUCN, and WWF titled "Caring for the Earth: A Strategy for Sustainable Living" which was very different from the previous version of 1980.<sup>119</sup> It dealt the previous debate and tried to keep definitions simple, clear and provided access to cross-section of people. It reflected the missing concern for the poor people and pointed out that if an activity is sustainable, then for all practical purposes, it can continue forever. This document used the word sustainable in several combinations like 'sustainable development', 'sustainable economy', 'sustainable use' and provided the definition which is meant to "improve the quality of human life while living within the carrying capacity of supporting eco-systems."<sup>120</sup> It outlined nine principles in order to be applied for sustainable society. These are respect and care for the community of life; improve the quality of human life; conserve the earth's vitality and diversity; minimize the depleting of non-renewable resources; keep within the earth's carrying capacity; change personal attitudes and practices; enable communities to care for their own environments; provide a national framework for integrating development and conservation; create a global alliance.<sup>121</sup> The very close and in depth analysis revealed that it placed more emphasis on the importance of education, values and empowerment, and emphasized that the concept of sustainable development included economic and ethical elements as well as ecological ones.<sup>122</sup>

It is noteworthy that this document was prepared in line with the forthcoming United Nations Conference on Environment and Development (UNCED) 1992 held at Rio de Janeiro after twenty years of the Stockholm Conference. This

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<sup>119</sup>IUCN, U., WWF (1991). Caring for the Earth: A Strategy for sustainable living. Gland, Switzerland.

<sup>120</sup> Ibid

<sup>121</sup> Ibid

<sup>122</sup> Ibid

1992 conference could not draw a distinction between the 'growth' and 'development' which could have offered more clear definition of the sustainable development; therefore this distinction allowed to be blurred and the Preamble to Agenda 21 stated the need to "promote sustained economic growth and sustainable development."<sup>123</sup> This conference was very well attended and the largest number of the heads of the states gathered which resulted the number of outcomes (The Rio Declaration on Environment and Development, the Agenda 21, Conventions on Climate Change and Biodiversity, Forestry Principles, the establishment of the Earth Council, the Global Environment Facility) including the Commission for Sustainable Development (CSD).<sup>124</sup>

It is concluded from the above discussion on environmental issues (growth, limits to growth, environmental economics, and sustainable development) that these issues divide the world into two camps; developed countries and developing countries. This divide remained in the bottom of all underlying issues and made visible in all efforts framing the international environmental laws, conventions, protocols, and in negotiations. Though, developing countries are further divided into sub-groups but for the Climate Change, there are only two main groups creating deadlocks and stalemates over the negotiations. These deadlocks and stalemates are directly and inextricably linked with above stated environmental issues which are eventually discussed based on economic matters and traditions.

The following section deals with the genesis of the Climate Change and its impacts on developing countries with their vulnerabilities

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<sup>123</sup> UNEP (1992), United Nations Conference on Environment & Development, Rio de Janeiro <http://www.unep.org/Documents.Multilingual/Default.Print.asp?DocumentID=52&ArticleID=49>

<sup>124</sup> Ibid

## 2.4 Genesis of Climate Change

### 2.4.1 Defining the Climate Change

Climate Change is a term covering the broad concepts of scientific evidences, reports, responses to these reports in terms of policies and legislation. It is stated that “climate change remains one of the most discussed issues of our time and our response to it continues to dominate the news.”<sup>125</sup> In pure scientific terms, it refers to changes in climatic conditions over the time. These changes are recorded in temperature over the years, decades or it could be any time scale. These changes are caused by natural factors, internal processes of Earth, and now to add new dimension is the influence of human activities which interferes that natural eco-system.<sup>126</sup>

In recent years, this term has extensively been used in its restricted sense to “denote a significant change (such as a change having important economic, environmental and social effects) in the mean values of a meteorological element (in particular temperature or amount of precipitation) in the course of a certain period of time, where the means are taken over periods of the order of a decade or longer.”<sup>127</sup> In environmental matters, it refers to “changes in modern climate, including the rise in average surface temperature”<sup>128</sup> which is a phenomenon popularly known as “global warming”<sup>129</sup> due to emissions of green house gases (GHG).<sup>130</sup>

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<sup>125</sup> BBC News, Climate Change, <http://www.bbc.co.uk/climate/links/>

<sup>126</sup> NSIDC, National Snow and Ice Data Centre, University of Colorado, Climate Change, [http://nsidc.org/arcticmet/glossary/climate\\_change.html](http://nsidc.org/arcticmet/glossary/climate_change.html)

<sup>127</sup> Ibid

<sup>128</sup> IPCC, Glossary of terms, [www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf](http://www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf), *Climate is defined as in its narrow sense* “the “average weather” or more rigorously as the statistical description in terms of the mean and variability of relevant quantities over a period of time ranging from months to thousands or millions of years. The classical period is 30 years, as defined by the World Meteorological Organization (WMO). These relevant quantities are most often surface variables such as temperature, precipitation, and wind. Climate in a wider sense is the state, including a statistical description, of the *climate system*.”

<sup>129</sup> The phrase **global warming** refers to the documented historical warming of the Earth's surface based upon worldwide temperature records that have been maintained by humans since the 1880s., stated on [http://www.eoearth.org/article/Global\\_warming](http://www.eoearth.org/article/Global_warming) and IPCC (4AR), Physical Sciences, WW I, defines it the increase in the average temperature of the Earth's near-surface air and oceans since the mid-20th century and its projected continuation. Global

It is notable that United Nations Framework Convention on Climate Change (UNFCCC) 1992 defines the climate system as “the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions.”<sup>131</sup>

It is evident from the above discussion the climate change refers to change in a climatic condition of the Earth or any part of it over a span of time which could be of years, decades or even stretched to million years but this research thesis attracts to the definition which has been popularized in recent times in environmental matters, policy, and legislation.<sup>132</sup> The following lines present the definition carried in the reports of Intergovernmental panel on climate change.

#### 2.4.2 Climate Change in the IPCC and UNFCCC

Intergovernmental on Climate Change (IPCC) defines the term climate change and its causes in its Third Assessment Report (TAR) in the following words.

“Climate change refers to a statistically significant variation in either the mean state of the *climate* or in its variability, persisting for an extended period (typically decades or longer).<sup>133</sup>

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surface temperature increased  $0.74 \pm 0.18$  °C ( $1.33 \pm 0.32$  °F) during the last century.  
[http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_wg1\\_report\\_the\\_physical\\_science\\_basis.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg1_report_the_physical_science_basis.htm)

<sup>130</sup>Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapor (H<sub>2</sub>O), carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), methane (CH<sub>4</sub>) and ozone (O<sub>3</sub>) are the primary greenhouse gases in the Earth's atmosphere. Moreover, there are a number of entirely human-made greenhouse gases in the atmosphere, such as the halocarbons and other chlorine- and bromine-containing substances, dealt with under the Montreal Protocol. Beside CO<sub>2</sub>, N<sub>2</sub>O and CH<sub>4</sub>, the Kyoto Protocol deals with the greenhouse gases sulphurhexafluoride (SF<sub>6</sub>), hydro fluorocarbons (HFCs) and per fluorocarbons (PFCs) defined in IPCC, 4AR, WW 1, Glossary of terms, [http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_wg1\\_report\\_the](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_wg1_report_the)

<sup>131</sup> UNFCCC, Article 1 (3), [www.unfccc.org](http://www.unfccc.org)

<sup>132</sup> Supra n 73, 74, 75 & 76

<sup>133</sup> IPCC, TAR, Glossary of terms, , [www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf](http://www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf)

It also endorses the reasons for this variation which are “due to natural processes or external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.”<sup>134</sup>

IPCC Fourth Assessment Report (4AR) 2007 defines climate change by referring to “a change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. It refers to any change in climate over time, whether due to natural variability or as a result of human activity.”<sup>135</sup>

It is noteworthy that this definition is different from the one, used by UNFCCC 1992 which points out that “climate change” means 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 period.”<sup>136</sup> It is notable from this difference that the convention 1992 draws a distinction between “climate change”<sup>137</sup> due to human activities causing changes in atmospheric composition and “climate variability”<sup>138</sup> due to natural causes.<sup>139</sup>

### 2.4.3 IPCC Establishment for Climate Change

The growing realization about global environmental issues brought climate change onto the political agenda in the mid-1980s. In 1988; the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) formed the Intergovernmental Panel on Climate Change

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<sup>134</sup> Ibid

<sup>135</sup> IPCC, Fourth Assessment Report, Climate Change 2007: Synthesis Report, [http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_synthesis\\_report.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm)

<sup>136</sup> UNFCCC, Article 1 (2), [www.unfccc.int/resource/docs/convkp/conveng.pdf](http://www.unfccc.int/resource/docs/convkp/conveng.pdf)

<sup>137</sup> Supra n 78 & 80

<sup>138</sup> Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all temporal and spatial scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability), IPCC, TAR, Glossary of terms, , [www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf](http://www.ipcc.ch/pdf/glossary/tar-ipcc-terms-en.pdf)

<sup>139</sup> Supra n 78

(IPCC) which is “the leading body for the assessment of climate change”<sup>140</sup> by providing the scientific information about climate change and its expected environmental impacts affecting social and economic segments.<sup>141</sup> It is a scientific body as well as intergovernmental body comprising of all member countries of UN and WMO. The modus operandi of this organization is to seek contribution from thousands of scientists all over the world who work on volunteer basis.<sup>142</sup> It has been mandated to prepare reports in regular intervals after monitoring the climate related data after assessing on a “comprehensive, objective, open and transparent basis the latest scientific, technical and socio-economic literature”<sup>143</sup> being produced around the world, related to the “risk of human-induced climate change.”<sup>144</sup> It is notable that IPCC has its own review process “to ensure an objective and complete assessment of current information”<sup>145</sup> while accommodating the different views within the scientific community.<sup>146</sup> All governments are part of review process which is performed at IPCC plenary sessions in order to take main decisions and “reports are accepted, adopted and approved.”<sup>147</sup>

In this way, IPCC maintains its scientific and intergovernmental role to provide balanced scientific information to decision-makers. In practice, governments endorse IPCC reports to “acknowledge the authority of their scientific content.”<sup>148</sup> It is noteworthy that the work of IPCC is “policy-relevant and yet policy-neutral, never policy-prescriptive.”<sup>149</sup> IPCC has issued four reports<sup>150</sup> and the latest one is known as Fourth Assessment Report (AR4).<sup>151</sup> It is based on scientific observations, outlining the impacts, adaptation, and

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<sup>140</sup> IPCC, Organization, <http://www.ipcc.ch/organization/organization.htm>

<sup>141</sup> Ibid

<sup>142</sup> Ibid

<sup>143</sup> IPCC, Mandate, <http://www.ipcc.ch/about/index.htm>

<sup>144</sup> Ibid

<sup>145</sup> Ibid

<sup>146</sup> Ibid

<sup>147</sup> Ibid

<sup>148</sup> Ibid

<sup>149</sup> Ibid

<sup>150</sup> First Assessment Report 1990, Second Assessment Report (SAR) 1995, Third Assessment Report (TAR) 2001, Fourth Assessment Report (4AR) 2007

<sup>151</sup> Issued in February 2007

vulnerabilities focusing on mitigating the climate change in neutral manner with “high scientific and technical standards”<sup>152</sup> which represent the work of highly skilled experts from all geographical areas.<sup>153</sup> It presents its findings in three volumes.<sup>154</sup> It is appropriate to review at length the findings of Fourth Assessment Report (4AR) to assess the vulnerabilities of developing countries from the devastating impacts of climate change but before reviewing these findings, all the previous reports need to be critically examined in brief. The forth coming lines present the scientific findings of all three reports and then fourth reports is analyzed at length.

#### **2.4.4 IPCC First Assessment Report (FAR) 1990**

IPCC issued first assessment report in 1990<sup>155</sup> which provided the foundation stone for United Nations Framework Convention on Climate Change (UNFCCC) 1992.<sup>156</sup> It is noted that panel’s findings forced the governments to negotiate the convention in unprecedented manner. It was negotiated rapidly unlike other international treaties and presented for signature at the 1992 United Nations Conference on Environment and Development -- more popularly known as the "Earth Summit" -- in Rio de Janeiro.<sup>157</sup> IPCC issued report in three volumes, work of three working groups (WG).<sup>158</sup> It is appropriate to view the findings of WGI which are related to the scientific findings of climate change.<sup>159</sup>

It founded that human activities were causing emissions of green house gases (GHGs).<sup>160</sup> Resultantly, the concentrations of green house gases were

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<sup>152</sup> Ibid

<sup>153</sup> Ibid

<sup>154</sup> Working Group I “The Physical Science Base”, Working Group II “Impacts, Adaptations and Vulnerability”, Working Group III “Mitigation of Climate Change”.

<sup>155</sup> IPCC, First assessment Report 1990,

[http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

<sup>156</sup> UNFCCC, IPCC Essential background,

[http://unfccc.int/essential\\_background/feeling\\_the\\_heat/items/2906.php](http://unfccc.int/essential_background/feeling_the_heat/items/2906.php)

<sup>157</sup> Ibid

<sup>158</sup> Working Group I: Scientific Assessment of Climate change, Working Group II: Impacts Assessment of Climate Change, Working Group III: The IPCC Response Strategies

<sup>159</sup> Ibid

<sup>160</sup> Supra n 76

concentrated in the atmosphere to enhance the greenhouse effect<sup>161</sup> which was contributing towards global warming.<sup>162</sup> It was calculated that CO<sub>2</sub> had been main contributor for the enhanced greenhouse effect.<sup>163</sup> It was stressed that its emissions needed to be reduced immediately by 60% to reduce the effects of global warming and to maintain the current level.<sup>164</sup> Scientists also calculated through models to predict the increase in global mean temperature during the next century “about 0.3 °C per decade (with an uncertainty range of 0.2 to 0.5 °C per decade); this is greater than that seen over the past 10,000 years; under other ... scenarios which assume progressively increasing levels of controls, rates of increase in global mean temperature of about 0.2 °C [to] about 0.1 °C per decade.”<sup>165</sup>

It is noteworthy that scientific team itself conceded with “many uncertainties”<sup>166</sup> in the predictions about timing, magnitude and regional changes. They pointed the reason for these uncertainties which was incomplete understanding of sources, related data of GHGs oceans and Polar Regions.<sup>167</sup> It was mentioned that observed increase could be due to natural variability and this observed increase could be contained by reducing “human-induced greenhouse warming.”<sup>168</sup> It was also observed that this expected enhanced greenhouse effect might not occur before a decade.<sup>169</sup> It is also identified that melting of polar regions and thermal expansion of oceans will contribute in raising the sea level about 6cm per decade with

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<sup>161</sup> The greenhouse effect is the heating of the surface of a planet or moon due to the presence of an atmosphere containing gases that absorb and emit infrared radiation, defined in SYR, 4AR, [http://www.ipcc.ch/publications\\_and\\_data/publications\\_ipcc\\_fourth\\_assessment\\_report\\_synt\\_hesis\\_report.htm](http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synt_hesis_report.htm)

<sup>162</sup> Supra n 104

<sup>163</sup> Ibid

<sup>164</sup> Ibid

<sup>165</sup> Ibid

<sup>166</sup> Ibid

<sup>167</sup> Ibid

<sup>168</sup> Ibid

<sup>169</sup> Ibid

uncertainty scale of 3-10cm per decade with the predicted rise of 20cm by 2030 and 65 cm by the end of this century.<sup>170</sup>

#### **2.4.5 IPCC Second Assessment Report (SAR) 1995**

IPCC issued its Second Assessment Report (SAR) 1995 and the most important contribution of this report was to make scientific-technical information relevant to interpreting Article 2 of UNFCCC 1992.<sup>171</sup> It endorsed the ultimate objective of the Article 2 which was expressed to

“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”<sup>172</sup>

while presenting the challenges to the policy makers to determine the concentration of greenhouse gases while developing economic development plans which are sustainable.<sup>173</sup>

It is notable that this report synchronized with UNFCCC and dealt with those matters which were addressed in Article 2.<sup>174</sup> It outlined the degree of climate change, its projections due to human activities, and the vulnerabilities of the “ecosystems and human communities”<sup>175</sup> by pointing out the factors of agriculture, food production, and water availability.<sup>176</sup> It is also noteworthy that this report emphasized the need here to conduct the “workshops to encourage information-gathering on and in the developing countries.”<sup>177</sup> It also highlighted the important considerations for sustainable development and also determined the directions for IPCC to “provide a sound scientific

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<sup>170</sup> Ibid

<sup>171</sup> Ibid

<sup>172</sup> Article 2 of UNFCCC

<sup>173</sup> Supra n 120

<sup>174</sup> Ibid

<sup>175</sup> Ibid

<sup>176</sup> Ibid

<sup>177</sup> Ibid

basis that would enable policymakers to better interpret dangerous anthropogenic interference with the climate system.”<sup>178</sup>

Working Group I summarized its conclusions for policy makers by endorsing the “continued increase in GHGs”,<sup>179</sup> tendency of anthropogenic aerosols “to produce radiative forcings”,<sup>180</sup> changing the climate over the past century,<sup>181</sup> evidence suggesting a “discernible human influence on global climate”, expected continuation of climate “to change in the future”<sup>182</sup> but at the same time conceding for “many certainties”.<sup>183</sup>

It is pointed out that many factors were hovering around to “limit our ability and detect future climate change”.<sup>184</sup> These factors included the estimation of future emissions and biological cycling of GHGs, representation of climate processes in models and feedback related to clouds, oceans, sea ice, and vegetation for the improvement of projection rates with regional patterns of climate change, and “systematic collection of long-term instrumental and

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<sup>178</sup> Ibid

<sup>179</sup> Increases in greenhouse gas concentrations since pre-industrial times (i.e., since about 1750) have led to a positive *radiative forcing* (A simple measure of the importance of a potential climate change mechanism. Radiative forcing is the perturbation to the energy balance of the Earth-atmosphere system (in Watts per square metre [Wm<sup>-2</sup>]) of climate, tending to warm the surface and to produce other changes of climate. IPCC, Second Assessment, Climate Change

1995 [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

<sup>180</sup> Tropospheric aerosols (microscopic airborne particles) resulting from combustion of fossil fuels, biomass burning and other sources have led to a negative direct forcing of about 0.5 Wm<sup>-2</sup>, as a global average, and possibly also to a negative indirect forcing of a similar magnitude. While the negative forcing is focused in particular regions and sub continental areas, it can have continental to hemispheric scale effects on climate patterns. IPCC, Second Assessment, Climate Change

1995 [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

<sup>181</sup> At any one location, year-to-year variations in weather can be large, but analyses of meteorological and other data over large areas and over periods of decades or more have provided evidence for some important systematic changes. IPCC, Second Assessment, Climate Change

1995 [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

<sup>182</sup> Sustained rapid climate change could shift the competitive balance but the magnitude is uncertain, but could be between zero and 200 GtC over the next one to two centuries, depending on the rate of climate change. IPCC, Second Assessment, Climate Change

1995 [http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_reports.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_reports.htm)

<sup>183</sup> Ibid

<sup>184</sup> Ibid

proxy observations of climate system variables”<sup>185</sup> for model testing purpose, assessment of variability, and for detection and attribution studies.<sup>186</sup>

This report rightly indicated the increased human contribution in the enhanced greenhouse effect by observing the temperature over 100 years which brought the evidence of an emerging pattern of climate change, climate response, and in observed climate record. All these results pointed “towards a human influence on global climate”.<sup>187</sup>

#### **2.4.6 IPCC Third Assessment Report (TAR) 2001**

IPCC released its Third Assessment Report (TAR) 2001 with other specialized reports.<sup>188</sup> The most noteworthy aspect of this report was providing the scientific consensus about global warming.<sup>189</sup> It was built upon previous reports with the inclusion of new data for the previous five years synchronizing with the previous data of (SAR) 1995 to confirm the reality of climate change. Its scientific conclusion was in tune with SAR 1995 and did not make any major departure from the original one. It pointed out the increase in temperature “over the 20th century by about 0.6°C,”<sup>190</sup> human activities continue to increase in emissions which were main cause of altering the atmosphere by affecting the climate.<sup>191</sup>

In this report, scientists were more confident with “the ability of models to project future climate”<sup>192</sup> but conceded for particular uncertainties.<sup>193</sup> It is noteworthy that their confidence had been increased and despite few particular uncertainties, it was maintained that models provided “useful

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<sup>185</sup> Ibid

<sup>186</sup> Ibid

<sup>187</sup> Ibid

<sup>188</sup> Climate Change 2001, Working Group I, The Scientific Basis,

[http://www.grida.no/publications/other/ipcc\\_tar/?src=/climate/ipcc\\_tar/wg1/005.htm](http://www.grida.no/publications/other/ipcc_tar/?src=/climate/ipcc_tar/wg1/005.htm)

<sup>189</sup> Ibid, though few scientists raised the objections within United Nations.

<sup>190</sup> Ibid, the TAR estimate for climate sensitivity is 1.5 to 4.5 degree centigrade and the average surface temperature is projected to increase by 1.4 to 5.8 centigrade over the period from 1990-2100 and the sea level is projected to rise by 0.1 to 0.9 metres over the same period.

<sup>191</sup> Ibid

<sup>192</sup> Ibid

<sup>193</sup> Ibid

projections of future climate has improved due to their demonstrated performance on a range of space and time-scales.”<sup>194</sup> The most important conclusion was the reinforcement of the fact that new and even stronger evidence highlighted “the most of the warming observed over the last 50 years is attributable to human activities.”<sup>195</sup> It also pointed out with confidence that “human influences will continue to change atmospheric composition throughout the 21st century.”<sup>196</sup> It also identified that increased temperature would contribute in raising the sea level in all projected scenarios.<sup>197</sup>

It is noteworthy that TAR used 35 models for projections but IPCC did not assign any probability to any of 35 used models which provided the ground to critics to forward the argument that “the available data is not sufficient to determine the real importance of greenhouse gases in climate change.”<sup>198</sup> Apart from this, IPCC itself conceded that there is a need “for better models and better scientific understanding of some climate phenomena.”<sup>199</sup> Though IPCC used best available predictions but this report remained under strong scientific scrutiny and attracted significant criticism. In spite of all the criticism, there is no point of debate that it confirmed the climate change due to human activities.<sup>200</sup>

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<sup>194</sup> Ibid

<sup>195</sup> Ibid

<sup>196</sup> Ibid

<sup>197</sup> Ibid

<sup>198</sup> Ibid

<sup>199</sup> Ibid.

<sup>200</sup> Ibid

## 2.5 Developing Countries: Impacts and Vulnerabilities of Climate Change on Developing Countries in the Scientific Realities of (AR4)

IPCC has issued four reports and the latest one is known as Fourth Assessment Report (AR4).<sup>201</sup> It is based on scientific observations, outlining the impacts, adaptation, and vulnerabilities focusing on mitigating the climate change in neutral manner with “high scientific and technical standards”<sup>202</sup> which represent the work of highly skilled experts from all geographical areas.<sup>203</sup> It presents its findings in three groups.<sup>204</sup>

### 2.5.1 Observations and Predictions in AR4

Fourth Assessment Report (AR4), completed in February 2007 endorsed the conclusion of its Third Assessment Report (TAR), published in 2001, which concluded in the strongest ever terms that “new and stronger evidence that most of the warming observed over the last 50 years is attributable to human activities”<sup>205</sup>. IPCC new findings based on extensive scientific research and computer models removed all question marks between climate change and human activity.<sup>206</sup> It concluded that “warming of the climate system is unequivocal”<sup>207</sup> which is evident from observations of increased air and ocean temperatures, and “widespread melting of snow and ice”<sup>208</sup> which triggered the rise in global average sea level. It proved from the comparison of data with TAR (Third Assessment report, issued in 2001) that melting of snow and ice in Greenland and Antarctica might have “very likely” contribution in sea level rise since 1993 to 3003.<sup>209</sup> It is noted that this

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<sup>201</sup> Issued in February 2007

<sup>202</sup> Ibid

<sup>203</sup> Ibid

<sup>204</sup> Working Group I “The Physical Science Base”, Working Group II “Impacts, Adaptations and Vulnerability”, Working Group III “Mitigation of Climate Change”.

<sup>205</sup> IPCC, Third Assessment Report, 2001

<sup>206</sup> IPCC, Fourth Assessment Report, 2007

<sup>207</sup> IPCC, Fourth Assessment Report, Working Group I, “The Physical Science Basis”

<sup>208</sup> Ibid

<sup>209</sup> Ibid

observed increase in globally averaged temperature is “very likely” due to the observed increase in green house gases (GHGs) concentrations. This concentration of GHGs consisting of carbon dioxide (burning of fossil fuel), methane and nitrous oxide (agriculture) have been increased, without any doubt, due to combined effect of human activities since 1750 which have exceeded pre-industrial values over the past 650,000 years.<sup>210</sup>

### **2.5.2 Working Group I (The Physical Science Basis)**

The most notable finding of Working Group I (The Physical Science Basis) is that emissions of carbon dioxide (past and future) will continue to increase in global warming for more than a millennium due to required timescale to remove the gas from the atmosphere.<sup>211</sup> This report observed the impacts of Climate Change in all continents and oceans endorsing the fact that many natural systems are prone to be affected by regional climate changes.<sup>212</sup>

### **2.5.3 Working Group II (Impacts, Adaptations and Vulnerability)**

Working Group II (Impacts, Adaptations and Vulnerability) extensively examined the impact of increased temperature in all regions of the World like Africa, Asia, Australia/New Zealand, Latin America, North America, Europe, Polar Regions and Small Islands in the context of Freshwater resources and their management, food, fiber and forests products, Coastal systems and low lying areas, Industry, settlement and society, and Health through model projections and by using the phrase “High Confidence” or “Very High Confidence”.<sup>213</sup> It emphasizes on extensive adaptations to reduce vulnerability to future climate change through barriers of limits and costs.<sup>214</sup> It also mentions the contribution of non-climate stresses to exacerbate the

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<sup>210</sup> Ibid

<sup>211</sup> Ibid

<sup>212</sup> IPCC, Fourth Assessment Report, Working Group II, “Impacts, Adaptations and Vulnerability”

<sup>213</sup> Ibid

<sup>214</sup> Ibid

already vulnerable climate change scenario like resource deployment to competing needs and disintegrated approach (incompatible with climate change policy) taken in the areas of water resource management, coastal defense and risk-reduction strategies.<sup>215</sup> It also points out the future vulnerability due to “development pathways” which will be limited to the considerations of social and economic changes. It brings forth the dilemma that “Sustainable development can reduce vulnerability to climate change, and climate change could impede nations’ abilities to achieve sustainable development pathways”<sup>216</sup> which is the main focus of this research study keeping in view the developing countries.

#### **2.5.4 The Working Group III (Mitigation of Climate Change)**

The Working Group III (Mitigation of Climate Change) highlights the mitigating strategies by taking sectoral approach in short and medium term until 2030 and in long term after 2030.<sup>217</sup> It highlighted key mitigating technologies in the sector of Energy Supply, Transport, Buildings, Industry, Agriculture, Forestry/forests, and Waste and the commercialization of these technologies by 2030.<sup>218</sup> It lays emphasis on the need of efficient public and private research and development with boosting investment for new technologies to meet the long term mitigating effects of climate change. It particularly points out that government funding in energy research development is declining for last 20 years.<sup>219</sup> It is suggested to put a price on the cost of carbon emissions and this very idea is the main objection of developing world which is intended to be dealt in this research study in depth.

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<sup>215</sup> Ibid

<sup>216</sup> Ibid

<sup>217</sup> IPCC, Fourth Assessment Report, Working Group III, “Mitigation of Climate Change”

<sup>218</sup> Ibid

<sup>219</sup> Ibid

### 2.5.5 Developing Countries/Regions: Climate Change Impacts

IPCC projected in its recent report that continued GHG emissions or more than the current rates would fuel the global warming to induce “many changes in the global climate system during the 21<sup>st</sup> century that would very likely be larger than those observed during the 20<sup>th</sup> century.”<sup>220</sup> It is identified with high agreement and much evidence that with current climate mitigation policies, global emissions of GHGs will continue to rise. Similarly, it also estimated the global sea level rise from 0.26-0.59 (model-based range by excluding future rapid dynamical changes<sup>221</sup> in ice flow from Greenland and Antarctica).<sup>222</sup> It also presented regional projections to draw out impacts on regions and systems with related sectors. These projections (discussed below) have been classified with high confidence<sup>223</sup> associated with key vulnerabilities.<sup>224</sup>

### 2.5.6 African Countries

African continent as a whole is already under pressure from climate change effects and highly vulnerable to its effects but it has many areas which have varied climatic conditions in the world on seasonal and decadal time scales. These areas could have floods and drought within months. It is pointed out that these events can bring famine and widespread disruption in socio-economic structures. All these factors can contribute and compound the climatic variability consequently it will cast negative impact on continent’s ability to cope with climate change. Apart from these climatic factors and variability, infrastructures matters are to be counted. These include “weak

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<sup>220</sup> WGI 10.3

<sup>221</sup> It is argued by experts in Paris meeting that with current rate in temperature rise, Greenland icecap will not survive and same with West Antarctica, both will add up to 7 m in sea level rise.

<sup>222</sup> WGI 10.6, SPM

<sup>223</sup> Ibid

<sup>224</sup> Ibid

institutions, limited infrastructures, lack of technology and information, low levels of primary education and health care, poor access to resources, low management capabilities, and armed conflicts.”<sup>225</sup> It projected that in African countries by 2020, 75-250 million people might face increased water stress,<sup>226</sup> reduction in rain dependent agriculture yield by 50% to adversely affect food security and create nutrition issues,<sup>227</sup> projected increased in sea-level would affect the low-lying areas population which, in turn, might generate cost of adaptation up to 5 to 10% of GDP,<sup>228</sup> and increase of 5 to 8 % in arid and semi-arid land by 2080 might happen, reflected under different climate scenarios.<sup>229</sup>

### 2.5.7 Asian Countries

Its projections reflected that in Asian countries, freshwater availability might be decreased by 2050 due to projected decrease in large river basins, situated in Central, South, East and South-East Asia.<sup>230</sup> It projected that climate change scenarios would impact on coastal areas which are heavily populated in the regions of South, East and South-East Asia. These coastal areas having mega delta regions will be affected with increased flooding from the Sea and the rivers.<sup>231</sup> In the same tune, climate change projections reflected the pressures on “natural resources and the environment” due to combined factors of “rapid urbanization, industrialization and economic development.”<sup>232</sup> These projections also pointed out the increased endemic morbidity and mortality due to “diarrheal disease”<sup>233</sup> related to floods and

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<sup>225</sup>Ezzati M, L. A. D., Rodgers A, Ed. (2004). Climate ChangeComparative Quantification of Health Risks: Global and Regional Burden of Disease due to Selected Major Risk Factors. Geneva, WHO

<sup>226</sup> WG II, 9.4, SPM

<sup>227</sup> Ibid

<sup>228</sup> Ibid

<sup>229</sup> WG II, TS.6, 9.4.4

<sup>230</sup> WG II, 10.4, SPM

<sup>231</sup> WG II, 10.4, SPM

<sup>232</sup> Ibid

<sup>233</sup> Ibid

droughts which could rise in East, South, and South-East Asia due to “projected changes in the hydrological cycle.”<sup>234</sup>

### **2.5.8 Latin American Countries**

IPCC projections for Latin American countries pointed the increase in temperature, decrease in soil water leading to “gradual replacement of tropical forest”<sup>235</sup> in eastern Amazonia.<sup>236</sup> It also identified the significant risk of biodiversity loss in many areas and replacement of semi-arid vegetation with arid-land vegetation.<sup>237</sup> In the same tune, there is a projection of scarcity in food resources due to decrease in “productivity of some important crops and decline in productivity of livestock”<sup>238</sup> which will increase the risk of hunger for increased number of people.<sup>239</sup> In addition to this, it is projected that changes in precipitation patterns and gradual displacement of glaciers will affect water availability which will consequently impact the needs of human consumption, agriculture and energy generation.<sup>240</sup>

### **2.5.9 Small Developing States**

The small island developing states (SIDS) are 51 including states and territories spreading over the Pacific, Indian and Atlantic Oceans, and Caribbean Sea. All these states and territories are highly vulnerable due to climate change and already having the impacts.<sup>241</sup> The climatic conditions of these areas are shaped by the oceanic atmospheric reactions like trade winds, El Nino and the monsoons. Besides this, SIDS are concentrated with large settlements having social and economic activities near the coastal areas. It is notable that in SIDS arable land, water resources and biodiversity

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<sup>234</sup> Ibid

<sup>235</sup> WG III, 13.4, SPM

<sup>236</sup> Ibid

<sup>237</sup> Ibid

<sup>238</sup> Ibid

<sup>239</sup> Ibid

<sup>240</sup> Ibid

<sup>241</sup> Bank, W. (2006) Not If, But When: Adapting to Natural Hazards in the Pacific Island Regions. Washington.

are already under pressure due to sea level rise.<sup>242</sup> In addition to this, exponential population growth and the massive use of available natural resources will compound the problems which will be further aggravated due to tropical storms, cyclones, coral bleaching, inundation of land, coastal and soil erosion. All these will cast combined and high-cost “damages to socio-economic and cultural infrastructure.”<sup>243</sup> It is revealed in statistics that from 1950 to 2004 Pacific Islands suffered 76 cyclones and had to account for USD 75.7 million for each cyclone damage and the Caribbean region, only 2004 hurricane caused damage estimated at USD 2.2 billion in four countries; the Bahamas, Grenada, Jamaica and the Dominican Republic.<sup>244</sup>

It is projected that the impacts of climate change will affect all sectors. These impacts with socio-cultural and economic capacities are inextricably interlinked with the vulnerability and low adaptive capacity of SIDS.<sup>245</sup> It is maintained that climate change impacts can be aggravated due to key vulnerabilities including “low availability of resources, population growth, remoteness, susceptibility to natural disasters, excessive dependence on international trade and vulnerability to global developments.”<sup>246</sup> It is estimated that fresh water supply will be exacerbated due to increased demand and decreased rainfall like 20% reduction has been anticipated for Tarawa Atoll, and Kiribati by 2050.<sup>247</sup> It is also noted that freshwater supplies could be threatened due to saltwater intrusion due to storm surge and sea level rise.<sup>248</sup> Agricultural produce is considered the cornerstone of SIDS economy and this sector will be heavily affected due to long periods of drought, loss of soil

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<sup>242</sup> Ibid

<sup>243</sup> Ibid

<sup>244</sup> United Nations Economic Commission for Latin America and the Caribbean, Press Release, <http://www.reliefweb.int/rw/rwb.nsf>

<sup>245</sup> IPCC, Climate Change Assessment Report AR4 2007, Working Group I, the Physical Science.

<sup>246</sup> IPCC, Climate Change Assessment Report AR4 2007, Working Group II, Impacts, Adaptation and Vulnerability

<sup>247</sup> Ibid

<sup>248</sup> Ibid

fertility and shortening of the growing season contributing to the economic losses and affecting the food security.<sup>249</sup>

#### **2.5.10 Developing Countries/Regions; Vulnerabilities**

It is evident from the above section that AR4 outlined the impact of climate change in four developing country regions: Africa, Asia, Latin America and Small Island developing states with vulnerabilities. It is predicted that billions of people living in the developing countries/regions will face shortage of water and food with greater risk to health and life.<sup>250</sup> Developing countries are at greater risk to “fewer resources to adapt: socially, technologically and financially.”<sup>251</sup> Therefore, it is anticipated that developing countries will have far reaching effects on the sustainable development which undermine their ability to attain the United Nations Millennium Development Goals by 2015.<sup>252</sup> IPCC projections have been supported by the impacts of projected climate change scenarios on systems and sectors. It mentioned in above lines that food crisis will increase due to increase in local average temperature which has the potential to affect the food resources and productivity. This scarcity of food may cast a deadly impact on the already ailing infrastructure of developing countries eventually to affect the “global potential for food production.”<sup>253</sup> Eventually, health status of people living in these regions is projected to be badly affected due to increased malnutrition, deaths, diseases, and injuries due to “extreme weather events.”<sup>254</sup> It is asserted that higher concentrations of ground-level ozone are likely to contribute to “increase the burden of diarrheal diseases and cardio-respiratory diseases”<sup>255</sup>

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<sup>249</sup> Ibid

<sup>250</sup> Three regional workshops held in Africa, Asia, and Latin America and one expert meeting held in small island developing states during 2006-2007, <http://unfccc.int/3582.php>

<sup>251</sup> Ibid

<sup>252</sup> Nations, U. (2007). Climate Change: Impacts, Vulnerabilities and Adaptation in Developing Countries. Bonn, UNFCCC

<sup>253</sup> WG II 5.4, 5.5, SPM

<sup>254</sup> WG I, 7.4 & WG II, 8ES, 8.2, 8.4, SPM

<sup>255</sup> Ibid

which will ultimately be instrumental in the “altered spatial distribution of some infectious diseases.”<sup>256</sup>

The most obvious projected impact of climate change is on water resources in all sectors and regions but the reduction in water availability due to population growth, urbanization, economic and land use change is projected to “exacerbate current water stresses on water resources.”<sup>257</sup> It is identified that widespread mass losses from glaciers and reductions in snow cover over recent decades is likely to contribute for “reducing water availability, hydropower potential, and changing seasonality of flows in regions”<sup>258</sup> in the mountain ranges of Hindu-Kush, Himalaya and Andes where more than one-sixth of the population is currently residing.<sup>259</sup>

It is noteworthy that IPCC projections pointed that those economies which are dependent on climate-sensitive resources can be affected due to coastal and river floods with rapid urbanization as the combined effect of all these factors may ruin the already “vulnerable industries, settlements and societies.”<sup>260</sup> It is identified that poor communities’ vulnerability may be increased due to concentrations in “high-risk areas.”<sup>261</sup> In the same tune, it is estimated that by 2080 many millions people than today will be affected by the floods every year due to raise in sea level particularly the people living in the “densely populated and low-lying mega delta of Asia and Africa.”<sup>262</sup>

The following sections systematically describe the potential impacts on systems and sectors.

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<sup>256</sup> Ibid

<sup>257</sup> WG I 4.1, 4.5 & WG II 3.3, 3.4, 3.5

<sup>258</sup> Ibid

<sup>259</sup> Ibid

<sup>260</sup> WG II 7.1, 7.3, 7.4, 7.5 SPM

<sup>261</sup> Ibid

<sup>262</sup> WG II 6.4, 6.5, SPM

### 2.5.11 Developing Countries and Ecosystems

It is found that unprecedented climate change disturbances like flooding, drought, wildfire, insects, and ocean acidification will cause huge affect on the resilience of many ecosystems.<sup>263</sup> In addition to this, human driven activities like land use, pollution, fragmentation of natural systems and over exploitation of resources will be contributing factors for affecting the resilience of ecosystems.<sup>264</sup> It is also observed that continued GHG emissions at the same or above rate will increase carbon uptake by terrestrial ecosystems which is likely to peak before mid-century and then weaken or reverse in order to amplify the climate change.<sup>265</sup> In the same way, plant and animal species will face the risk of extinction by 20-30% if global temperature exceeds from 1.5 to 2.5 centigrade.<sup>266</sup> It is found that same temperature rise in atmosphere coupled with increased carbon missions will bring major changes in “ecosystems structure and function, species’ ecological interactions, and shifts in species”<sup>267</sup> which will ultimately cause predominately negative consequences for biodiversity and ecosystem goods and services (water and food supply).<sup>268</sup>

### 2.5.12 Developing Countries: Food and Fiber

The availability of the food for huge population is projected to increase due to rise in temperature slightly at the mid to high latitude areas and will be decreased in other regions.<sup>269</sup> It is also observed that at lower altitudes, crop productivity will be decreased especially in seasonally dry and tropical regions and crop productivity is projected to decrease for even small local temperatures increase which will increase the risk of hunger.<sup>270</sup> It is quite interesting to know that food production will be

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<sup>263</sup> WGII 4.1-4.6, SPM

<sup>264</sup> Ibid

<sup>265</sup> WGII, 4ES

<sup>266</sup> Ibid

<sup>267</sup> WGII, 4.4

<sup>268</sup> Ibid

<sup>269</sup> WGII 5.4

<sup>270</sup> WG II 5.4

increased globally with increases in local average temperature over a range of 1 to 3 centigrade but food production will decrease if temperature exceeds it.<sup>271</sup>

### **2.5.13 Developing Countries and Health**

Health is the third interlinked factor after ecosystems and food with the impacts of climate change. It is projected that millions of people will be affected due to increase in malnutrition; increased deaths, diseases and injury due to severe weather cycles.<sup>272</sup> It is also predicted that diarrhoeal diseases will be increased and frequent cardio-respiratory diseases due to “ground level ozone in urban areas related to climate change.”<sup>273</sup> Whereas, Climate Change will bring some benefits in temperate areas like number of deaths will be decreased from cold exposure and some mixed effects will be rampant in range and transmission potential of malaria in Africa.<sup>274</sup> It is also expected that benefits will be “outweighed by the negative health effects of rising temperature especially in developing countries.”<sup>275</sup> It is also added with emphasis that there are few critical important factors like education, health care, public health initiatives, infrastructure and economic development.<sup>276</sup>

### **2.5.14 Developing Countries and Water Resources**

Climate Change impacts on water are considered the most important for all sectors and regions. This is the most significant sector which is predicted to diminish due to “current stresses on water”<sup>277</sup> which will be caused by “population growth, economic, and land use including urbanization.”<sup>278</sup> At regional level, snow packed mountains, glaciers and even small ice caps contribute a crucial role in freshwater availability but wide spread mass losses from the glaciers and reductions in snow cover will be

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<sup>271</sup> Ibid

<sup>272</sup> WG I 7.4 and WG II 8, 8.2, 8.4

<sup>273</sup> Ibid

<sup>274</sup> WG II 8.4, 8.7

<sup>275</sup> Ibid

<sup>276</sup> WG II 8.3

<sup>277</sup> WG I 4.1

<sup>278</sup> Ibid

continued rather at the faster projected rate throughout the 21<sup>st</sup> century contributing in the water shortage. This phenomenon will generate series of other energy related problem due to reduction in hydropower potential.<sup>279</sup> It is also observed that seasonal changes in water flow from major mountain ranges (Hindu-Kush, Himalaya, Andes) to the dependent regions, mostly occupied by developing countries which are densely populated.<sup>280</sup> It is also found that water availability will be reduced to changes in runoff, precipitation, and temperature. It is calculated that run off will be increased by 10% to 40% by mid-century at higher latitudes, wet tropical areas and the populous areas of the east and the south-east Asia comprising of developing countries.<sup>281</sup> In the same manner, the runoff will be decreased by 10% to 30% over some dry regions at mid-latitudes and dry tropics, due to decreases in “rainfall and higher rates of evapo transpiration.”<sup>282</sup> It is also projected with high confidence that underdeveloped regions namely Mediterranean Basin, western United States, southern Africa and north-eastern Brazil where most of the developing countries will suffer decrease in water resources due to climate change coupled with increase in drought-affected areas.<sup>283</sup> This decrease in water supply and increase in drought affected areas will have the potential for “adverse impacts on multiple sectors like agriculture, water supply, energy production and health.”<sup>284</sup> This observation highlights that only changes in water supply will bring the series of interconnected issues which will be Herculean task for the developing nations to tackle simultaneously while keeping their journey towards development in sustainable manner.<sup>285</sup> It is also observed that irrigation demands will be increased in large regions due to climate change.<sup>286</sup>

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<sup>279</sup> WG I 4.5

<sup>280</sup> Ibid

<sup>281</sup> WG I 10.3

<sup>282</sup> WG I 11.2-11.9

<sup>283</sup> WG II 3.4

<sup>284</sup> WG II 3.5

<sup>285</sup> Supra n 429

<sup>286</sup> Ibid

It is also identified that the negative impacts of climate change on fresh water channels and availability will outweigh its benefits.<sup>287</sup> Though, increased run off can bring beneficial impacts in some areas but these impacts will be tempered by the negative effects of increased precipitation variability and seasonal runoff shifts on “water supply, water quality and flood risk.”<sup>288</sup> It is predicted that heavy rainfall will be increased in future in many regions whereas, at the same time, mean rainfall will be decreased in many areas. Resultantly, flood risks will be increased which can pose extra challenges to the infrastructures of the vulnerable societies like developing countries who lack in such resources to combat with disasters.<sup>289</sup> It is also observed that population living near the rivers and depending upon river resources particularly in developing countries will face the flood risks which will be increased by 20% till 2080s. It is concluded that the increase in frequency and severity of floods and droughts will “adversely affect sustainable development.”<sup>290</sup> It is noted that not only human beings will be affected by the adverse impacts of climate change rather further adverse impacts will be on “many individual freshwater species, community composition and water quality”.<sup>291</sup>

### **2.5.15 Developing Countries: Coastal Systems and Low-Lying Areas**

Coastal systems and low-lying areas (referred as coasts) are projected to be exposed to the climate change affects. It is identified in IPCC Third Assessment Period (TAR) and in the AR4 that coasts will be experiencing the “adverse consequences of hazards related to climate and sea.”<sup>292</sup> It is observed in latest findings that coasts are vulnerable to extreme events like storms, cyclones and hurricanes which wreak havoc and “impose substantial

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<sup>287</sup> WG II 3.4

<sup>288</sup> WG II 3.5

<sup>289</sup> WG I 11.2

<sup>290</sup> WG I 11.9,

<sup>291</sup> WG II 3.2, 3.3

<sup>292</sup> IPCC, Climate Change 2007: Working Group II: Impacts, Adaption and Vulnerability, Chapter 6, Coastal Systems and Low-Lying Areas, [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg2/en/ch6.html](http://www.ipcc.ch/publications_and_data/ar4/wg2/en/ch6.html)

costs on coastal societies or low lying states.”<sup>293</sup> This statement becomes more grave when read together with the previous statistics of about 120 million people, exposed to tropical cyclone hazards in which 120,000 people killed from 1980 to 2000.<sup>294</sup>

It is pointed out that through out twentieth century, global rise of sea level contributed to increased “coastal inundation, erosion and ecosystem losses”<sup>295</sup> which caused considerable local and regional effects. These effects included rising temperature causing “loss of sea ice, thawing of permafrost and associated coastal retreat, and more frequent coral bleaching and mortality.”<sup>296</sup> Therefore, it is predicted that coasts will be exposed to climate change increasing risks in coming decades. These risks also include coastal erosion and sea-level rise. It is anticipated that climate changes will accelerate rise in sea level rise of up to 0.6 or more by 2100; rise in sea surface temperature by up to 3 centigrade; increased intensity of tropical and extra tropical cyclones; larger waves and storm surges; altered precipitation and ocean acidification.<sup>297</sup> Though these changes and associated variations will be different at regional and local levels but impacts are “virtually certain to be overwhelmingly negative.”<sup>298</sup>

It is notable that Corals are vulnerable to thermal stress and possess low adaptive capacity. It is predicted that increase in sea surface temperature will be resulted in frequent coral bleaching events and widespread mortality which can be minimized or controlled by “thermal adaptation or acclimatization by corals.”<sup>299</sup> Coastal wetland ecosystems<sup>300</sup> are especially threatened due to sediment-starved or constrained on their landward margin. The degradation of coastal systems particularly wetlands and coral reefs will cause serious

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<sup>293</sup>WG II, 6.2.1, 6.2.2 and 6.5.2

<sup>294</sup> Ibid

<sup>295</sup> WG II 6.5.2

<sup>296</sup> Ibid

<sup>297</sup> WG II 6.3.2

<sup>298</sup> WG II 6.4, 6.5.3

<sup>299</sup> Ibid

<sup>300</sup> such as saltmarshes and mangroves

survival issues for the dependent societies. These societies are dependent for their well-being on the coastal systems for goods and services.<sup>301</sup> It is anticipated that increased flooding and degradation of freshwater resources could impact hundreds of millions of people which will eventually escalate the socio-economic costs on coasts.<sup>302</sup>

The most alarming impact of climate change on coasts is the increased pressure by the human beings. This coast usage has dramatically increased during the previous century and is predicted to continue in the 21<sup>st</sup> century due to immigration flow from developing countries. It is assumed that coastal population will grow from 1.2 billion people to 5.2 billion by the 2080s. This increased population and assets would be at risk at the coasts due to “additional stresses on land use, hydrological changes in catchments including dams that reduce sediment supply to the coast.”<sup>303</sup> It is noteworthy that populated Asian megadeltas, low-lying coastal urban areas and atolls are anticipated to be societal hotspots of coastal vulnerability. It is noted that these stresses on the natural system will be adversely impacted in developing nations due to “low human adaptive capacity with high exposure.”<sup>304</sup> Therefore, it is calculated that South, South-east and East Asia, Africa and small islands will be most vulnerable. These impacts on developing nations in coastal areas need to be managed in integrated manner<sup>305</sup> but the adaptation costs in developing countries will be challenging as compared to the developed countries due to constraints on adaptive capacity.<sup>306</sup>

It is noteworthy that adaptive capacity is the most important factor (after population and natural resources) to ward off human vulnerability and it is mostly dependent upon development status.<sup>307</sup> Developing nations will face the capacity building issues to protect or relocate their people; these nations

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<sup>301</sup> WG II 6.4.2 and 6.5.3

<sup>302</sup> Ibid

<sup>303</sup> WG II 6.3.2

<sup>304</sup> WG II 6.4.3

<sup>305</sup> Ibid

<sup>306</sup> Ibid

<sup>307</sup> Supra n 481

may have political or societal infrastructure and will but lack of financial strength make them more vulnerable than developed countries in an identical coastal setting. It is also pertinent to mention that vulnerability varies among the developing countries.<sup>308</sup>

## **2.6 Developing Countries: Climate Change Sectoral Impacts & Peculiar Position of Pacific Island Developing Countries**

### **2.6.1 Developing Countries: Climate Change Impacts on Fresh Water Resources**

Water is undoubtedly considered indispensable resources to all life organisms on the earth but this indispensable source is under pressure in many parts of the world and will be increasingly under pressure in the developing countries due to their population growth, heavy reliance on agricultural production to feed huge population and quest to export for foreign exchange, and burning desire for economic development through industrialization.<sup>309</sup> There is compelling scientific evidence that climate change will contribute in diminishing the water resources and “pose formidable challenges to water system.”<sup>310</sup> It is identified that increasing global warming will disrupt the traditional rainfall and run off patterns which could “increase the frequency and severity of both drought and floods.”<sup>311</sup> These changes in naturally available water will profoundly impact the water management, allocations, prices, and reliability. It will lead to reduce the water quality by “changing water temperatures, flows, runoff rates and timing, with significant potential impacts on water users.”<sup>312</sup> These factors of disturbed pattern of naturally available water and degrading water quality will

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<sup>308</sup> WG II 6.5.3

<sup>309</sup>Supra n 5

<sup>310</sup> IPCC, Fourth Assessment Report, “Impacts, Adaptations and Vulnerability”, 2007

<sup>311</sup> Ibid

<sup>312</sup>the Water Sector Report of the U.S.National Assessment, “Water: The Potential Consequences of Climate Variability and Change.” U.S. Global Change Research Program, WashingtonD.C.<http://www.gcrio.org/NationalAssessment/water/water.pdf>

also affect the temperatures in lakes, streams, melting permafrost and reducing the water quality. All these factors could be combined to seriously affect “fish and other aquatic organisms.”<sup>313</sup>

In addition to the impacts of the climate change, human usage including business also exacerbate the available fresh water resources and big contributing cause to endanger or threaten “species of fish, amphibians, gastropods, and freshwater mussels”<sup>314</sup> even to the extent of higher level of extinction.<sup>315</sup> It is noted that in the last century, more than half of the wetlands on the earth has been consumed and lost in the process of human withdrawals on inflows, conversion, and development. The construction of big dams and water withdrawals on river systems in arid parts of the world point out that “virtually the entire flow of these rivers are now captured and used before reaching the rivers’ mouths.”<sup>316</sup> It results in reducing the delta estuaries, wetlands, habitat for marine fisheries coupled with bringing huge loss to “economic, social, and cultural ruin to coastal human populations.”<sup>317</sup>

It is noteworthy that commercial activities or businesses houses in developing countries confront a range of risks as compared to their presence in the developed nations. All the scientific data including its analyses and projections point out the water deficit infrastructure which can horrendously pose risks for government failure for not meeting the basic human needs clean water and sanitation services. The absence of these basic human needs will eventually contribute in “widespread water-related diseases, inadequate intellectual and institutional capacity, and major economic problems finding the capital necessary to deal with these problems.”<sup>318</sup> In this situation, international and local business activities will adversely be affected

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<sup>313</sup> Ibid

<sup>314</sup> FAO, Food and Agriculture Organization, Water Resources and Developing Countries, <http://www.fao.org/english/newsroom/news/2003/15254-en.html>

<sup>315</sup> Ibid

<sup>316</sup> Ibid

<sup>317</sup> Ibid

<sup>318</sup> Gleick, J. M. a. P. (2004). "Freshwater Resources: Managing the Risks Facing the Private Sector." Pacific Institute for Studies in Development, Environment, and Security, Research for People and the Planet

for providing the services. In case of disrupting the services, the entire infrastructure of providing the goods and services is upset enough to disturb the social equilibrium contributing the law and order situation leading to the political failure.<sup>319</sup>It is pertinent to mention here that both Pepsi and Coca-Cola lost their license to use local underground water at their bottling plant in Kerala, India when local drought affected local aquifers which raised the competition. Resultantly, Coca-Cola permanently shut down its plant at Kerala, the largest bottling operation in India, due to continuous difficulties for accessing the ground water permit from the local authorities.<sup>320</sup>

It is equally worth mentioning that it is not necessarily the case that lack of fresh water resources resulting in shutter down of multinationals in developing countries and sparking the social riots as mentioned above, unavailability of fresh water can affect the business giant in developed country. It is interesting to mention here the example of Anheuser-Busch, the world's largest brewer of beer, experienced business impacts from unexpected water shortages affecting its supply chain due to temporary drought in the US Pacific.<sup>321</sup> Anheuser-Busch had to raise its prices due to unavailability of key ingredients and inputs coupled with unusually dry winter and fluctuating electricity market prices depending upon water for power generation. It generated the short term competition for the limited fresh water resources among the stakeholders resulting in reduced yield of barley considered a key ingredient in brewery industry. Simultaneously, aluminum production relying on hydro power dams had to be reduced due to both unavailability of fresh water resources and skyrocketing electricity prices. This entire cyclical process affected the company supply chain and presented Anheuser-Busch as a

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<sup>319</sup> Ibid

<sup>320</sup> Kerala Govt undecided on Coke plant's future. Sun Network.

<http://www.sunnetwork.org/news/regional/Kerala/Kerala.asp?id=9945>

<sup>321</sup> Supra n 158

business case for taking “more comprehensive, strategic, and unsustainable approach to water issues.”<sup>322</sup>

### **2.6.2 Developing Countries: Climate Change Impact on Agriculture and Food**

It is not a very complex phenomenon to understand that climate change effects send ripples to all segments of life. As it is predicted in Intergovernmental Climate Change (IPCC) reports that global warming will have significant impacts on conditions and situations which will in turn affect the agriculture yield.<sup>323</sup> It is essential to focus on those conditions and situations, rather than on the efforts to increase agriculture yield, which have the carrying capacity of the planet to produce food for humans and animals. It is noted that climate change effects are visible at the time when there is an increasing need and demand for food, fiber, feed and fuel. The increasing demand of these items has the potential to cause irreparable damage to the natural resource base of agriculture.<sup>324</sup> Therefore, without any doubt, Climate Change has been termed, interpreted and advanced as the primary environmental threat of the 21<sup>st</sup> century.<sup>325</sup>

It is pertinent to mention here the effects of climate change on agriculture and related food items in developing regions. It is calculated that in Asia and Africa, more than half of the labour force is related to agriculture with heavy reliance of their sustenance on it. This sustenance and dependency is not only on agriculture produce but also on the agriculture markets. It is also estimated that developing countries secure more than 20% of their GDP from agriculture and also dependent on the food aid for their huge population as well.<sup>326</sup> This volatile situation has the potential to raise the issues of food

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<sup>322</sup> Global Environmental Management Initiative, “Connecting the Drops Towards Creative Water Strategies: A Water Sustainability Too”, (2002)

<sup>323</sup> IPCC WG I

<sup>324</sup> Ibid

<sup>325</sup> BBC NEWS

<sup>326</sup> Supra n 163, Dietary Consumption

security and climate change is considered one of the contributing causes. It is projected that in 2080 around 1,300 million people could be at risk of hunger under the more extreme scenario, with the poorest countries worse affected.<sup>327</sup> It is also projected that developing countries livelihood and survival could be threatened due to their dependence on agricultural produce which might be dwindle fast due to its attachment with the economic development of these countries.<sup>328</sup> It is notable that population of developing country not only feeds itself from agriculture produce but also earns from the byproducts. In this way, croplands become the welfare tool as well.

It is warned that four countries only in South Asia (Afghanistan, Bangladesh, India and Nepal) are particularly vulnerable for less cropland due to “floods, droughts, erratic rainfall, and other climate change impact.”<sup>329</sup> In the same tune, it is emphasized that if the current state in agriculture produces remains unchanged till 2050, even the irrigated crop will be reduced significantly like maize by -17%, wheat by -12% and rice by -10% due to climate change effects of heat and water shortage only.<sup>330</sup> It is noteworthy that crop cycle of these produce is dependent on longer period of constant temperature ranging from medium to moderate. Therefore, it becomes difficult in one year to get all the desired temperature as climatic temperatures are also changing fast affecting the duration between sowing and harvesting. This cyclical issue in temperature could adversely affect the agriculture produce, livelihood of millions.<sup>331</sup>

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<sup>327</sup> Ibid

<sup>328</sup> Ibid

<sup>329</sup> ADB Study projections, scenarios, analyses and trends, 2009

<sup>330</sup> Ibid

<sup>331</sup> Ibid

### 2.6.3 Developing Countries (Pacific Island): Devastating Climate Change Impact and Fresh Water Resources

Pacific Islands are three thousand in numbers but only one thousands islands are inhabited.<sup>332</sup> In terms of political context, there are 22 political entities out of which 15 are political independent.<sup>333</sup> It is noted that United Nations has categorized these countries as small coastal states except Fiji and Papua New Guinea. In terms of climate change, it is estimated that these small coastal states are only responsible for 0.03 % of the world's carbon emissions<sup>334</sup> but it is projected that these countries will be the first to batter the consequences, in severe form, of the climate change over the next two centuries.<sup>335</sup> Though, these countries have different geographical resources<sup>336</sup> for freshwater collection but apart from their topography which is beyond the scope of this research thesis, it is recently concluded by United Nations that “freshwater is an essential, and threatened resource.....life threatening deficiencies of unpolluted water supplies.”<sup>337</sup> Like other developing countries, these states also have the population growth beyond their resources which is causing excessive burden on their economy, health care, and food supplies. This increased burden results in the forced pumping out of underground water resulting in the loss of freshwater supply with the saltwater intrusion.<sup>338</sup> It is estimated that this forced pressure will be increased in the coming years due to doubling of population in these countries by 2050. This situation could be aggravated due to urbanization and poor infrastructure coupled with frequent occurring drought in the regions.

It is noted that IPCC projected temperature rise in the region is around is around two centigrade by 2050 and three centigrade by 2080. It is also indicated that sea levels may rise and continue to rise in the region increasing the vulnerability of inundation of the coastal states. This situation could be

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<sup>332</sup> UNEP

<sup>333</sup> US Naval Meteorology and Oceanography reference

<sup>334</sup> Hay 1999

<sup>335</sup> IPCC 2001

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<sup>337</sup> UN COMMISSION, Ministerial Conference.

<sup>338</sup> South Pacific APPLIED Commission 2001

aggravated with the frequent storms in the regions. It is noted that these storms affect the wave current cycles affecting the inundation of sea waters, freshwater underground table eventually leading to heavy rains. In addition to this, increase in temperatures may increase in evaporation causing the dry spell for soil and vegetables. In the same tune, stream water may have its own effect.

## **2.7 Chapter Concluding Remarks**

It can be concluded that climate change has been recognized, acknowledged and scientifically proven phenomenon affecting the world in various dimensions. It has hit the mind of the ordinary people through media, advocacy, and movements. There is no dearth of material, people and organizations which are not playing their role in environmental awareness. It is no point of dispute that it needs concerted, integrated and global action in an organized, systematic and in institutional form. International environmental law has been evolved over the years as environmental awareness touches the mind, societies, and communities. These legal instruments are designed, sketched and tailored to role out the global institutional action.

There is no doubt that there has been a significant development in international law to tackle the climate change under United Nations Framework Convention on Climate Change (UNFCCC) 1992 and its Kyoto Protocol 1997 but it could not bring the desired impact as it felt and needed or demanded by IPCC latest 2007 report. The only reason for not having effective international framework is the lack of consensus among the nations; developed and developing. This disagreement has created the deadlock which is yet to be resolved. It was expected in the Copenhagen Conference 2009 that a new framework will be agreed after the phasing out of Kyoto Protocol in 2012 but no legal based formula could be worked out.<sup>339</sup>

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<sup>339</sup> Daniel Bodansky

It is evident from the discussions, observations and conclusions of this chapter that developing countries will be at greater risk to the climate change impacts and vulnerabilities. These developing countries have been evolved from the colonies and want to develop like western nations or on the same footings. Therefore, they express their reservations against such international rules which are not favouring to their development. In this way, their negotiators also create impasse in international environmental instruments. The forthcoming chapter has the thematic focus on the role of developing countries in international environmental law, their reservations, agreements and disagreements. Their position in this regard together with the discussion in this chapter will form the need to develop a mechanism for the developing countries to be unanimously agreed in the realm of international environmental law.

### **3. Developing Countries and Evolutionary Principles of International Environmental Law related to Climate Change Law**

#### **3.1 Introduction**

It presents the developing countries in the context of international environmental issues, laws, and principles. It looks at international environmental law, its principles in parallel multilateral environmental regimes focusing on the special position of the developing countries in the climate change regime. It also specifically focuses on the fundamental/key principles of international environmental law (Common but differentiated responsibilities,<sup>340</sup> precautionary principle,<sup>341</sup> polluter pays principle,<sup>342</sup> Information and Assistance,<sup>343</sup>) coupled with the state sovereignty principle of customary international law. It views five environmental law principles having their relevance with the developing countries and climate change phenomenon and its last part tackles the debate of the sovereignty principle and its application with environmental principles.

#### **3.2 Climate Change Legal Distinction for Parties**

Climate Change, without any doubt, is now regarded as “the most serious environmental problem facing the mankind”<sup>344</sup>. Intergovernmental Panel on Climate Change in its Fourth Assessment Report (AR4), completed in February 2007 endorsed the conclusion of its Third Assessment Report (TAR), published in 2001, which concluded in the strongest ever terms that “new and stronger evidence that most of the warming observed over the last

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<sup>340</sup> Principle 7 of Rio Declaration

<sup>341</sup> Principle 15 of Rio Declaration

<sup>342</sup> Principle 16 of Rio Declaration

<sup>343</sup> Principle 18 of Rio Declaration

<sup>344</sup>Stowell, D. (2005). Climate Trading Development of Greenhouse Gas Markets. New York: Palgrave Macmillan.

50 years is attributable to human activities”<sup>345</sup>. IPCC new findings based on extensive scientific research and computer models removed all question marks between climate change and human activity.<sup>346</sup> This new report concluded that “warming of the climate system is unequivocal”<sup>347</sup> which is evident from observations of increased air and ocean temperatures, and “widespread melting of snow and ice”<sup>348</sup> which triggered the rise in global average sea level. It proved from the comparison of data with TAR that melting of snow and ice in Greenland and Antarctica might have “very likely” contribution in sea level rise since 1993 to 3003.<sup>349</sup> It noted that this observed increase in globally averaged temperature is “very likely” due to the observed increase in green house gases (GHGs) concentrations. This concentration of GHGs consisting of carbon dioxide (burning of fossil fuel), methane and nitrous oxide (agriculture) have been increased, without any doubt, due to combined effect of human activities since 1750 which have exceeded pre-industrial values over the past 650,000 years.<sup>350</sup> The most notable finding of WGI is that emissions of carbon dioxide (past and future) will continue to increase in global warming for more than a millennium due to required timescale to remove the gas from the atmosphere.<sup>351</sup>

This report observed the impacts of Climate Change in all continents and oceans endorsing the fact that many natural systems are prone to be affected by regional climate changes.<sup>352</sup> Working Group II extensively examined the impact of increased temperature in all regions of the World like Africa, Asia, Australia/New Zealand, Latin America, North America, Europe, Polar Regions and Small Islands in the context of Freshwater resources and their management, Eco Systems, Food, fibre and forests products, Coastal

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<sup>345</sup> Jorge Enrique Hardoy, D. M., and David Satterthwaite. (1992). *Environmental Problems in Third World Cities*. London: Earthscan.

<sup>346</sup> IPCC, Fourth Assessment Report, 2007

<sup>347</sup> IPCC, Fourth Assessment Report, Working Group I, “The Physical Science Basis”

<sup>348</sup> Ibid

<sup>349</sup> Ibid

<sup>350</sup> Ibid

<sup>351</sup> Ibid

<sup>352</sup> IPCC, Fourth Assessment Report, Working Group II, “Impacts, Adaptations and Vulnerability”

systems and low lying areas, Industry, settlement and society, and Health through model projections and by using the phrase “High Confidence” or “Very High Confidence”.<sup>353</sup> It emphasizes on extensive adaptations to reduce vulnerability to future climate change through barriers of limits and costs.<sup>354</sup> It also mentions the contribution of non-climate stresses to exacerbate the already vulnerable climate change scenario like resource deployment to competing needs and disintegrated approach (incompatible with climate change policy) taken in the areas of water resource management, coastal defence and risk-reduction strategies.<sup>355</sup> It also points out the future vulnerability due to “development pathways” which will be limited to the considerations of social and economic changes. It brings forth the dilemma that “Sustainable development can reduce vulnerability to climate change, and climate change could impede nations’ abilities to achieve sustainable development pathways”<sup>356</sup>

The Working Group III highlights the mitigating strategies by taking sectoral approach in short and medium term until 2030 and in long term after 2030.<sup>357</sup> It highlighted key mitigating technologies in the sector of Energy Supply, Transport, Buildings, Industry, Agriculture, Forestry/forests, and Waste and the commercialization of these technologies by 2030.<sup>358</sup> It lays emphasis on the need of efficient public and private research and development with boasting investment for new technologies to meet the long term mitigating effects of climate change. It particularly points out that government funding in energy research development is declining for last 20 years.<sup>359</sup>

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<sup>353</sup> Ibid

<sup>354</sup> Ibid

<sup>355</sup> Ibid

<sup>356</sup> Ibid

<sup>357</sup> IPCC, Fourth Assessment Report, Working Group III, “Mitigation of Climate Change”

<sup>358</sup> Ibid

<sup>359</sup> Ibid

### 3.2.1 International Legal Regime for Climate Change

IPCC reports attracted International community to respond in commendable manner over the last 30 years by engaging in environmental discussions and negotiations for international environmental regime. These negotiations resulted in the formation of first international environmental treaty, known as the United Nations Framework Convention on Climate Change (UNFCCC), entered into force in 1994 providing the future framework for negotiations among the member countries to reduce emissions.<sup>360</sup> The turning point in environmental negotiation was Kyoto Protocol, adopted on December 11, 1997 which contained the quantitative commitments to reduce greenhouse gas emissions.<sup>361</sup> It introduced the new dimension of “legally-binding constraints on greenhouse gas emissions and innovative mechanisms aimed at cutting the cost of curbing emissions”<sup>362</sup>. It set the target for the developed countries to reduce greenhouse gas emissions to “an overall reduction of 5 percent from 1990 levels during the period from 2008 to 2012”<sup>363</sup>. It was entered into force on February 16, 2005 and has provided a platform to develop Climate Change law and Sustainability Law.

UNFCCC divides the nations into two main groups; countries which are listed in Annex-I are known as Annex-I Parties and the rest of the countries, not listed, are known as non-Annex-I Parties. This is the division of the developed and the developing countries based on their industrial progress, technical innovations and skills and sound social and political setup to implement the environmental agenda coupled with healthy financial resources. There are 41- Annex-I Parties.<sup>364</sup> All are industrialized nations who contributed to the environment damage or climate change due to their emissions.

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<sup>360</sup> UNFCCC, [www.unfccc.org](http://www.unfccc.org)

<sup>361</sup> UNFCCC, Kyoto Protocol, [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)

<sup>362</sup> Ibid

<sup>363</sup> Ibid

<sup>364</sup> UNFCCC, Annex-I, Text of the Convention, [http://unfccc.int/essential\\_background/convention/background/items/1346.php](http://unfccc.int/essential_background/convention/background/items/1346.php)

### **3.2.2 Developing Countries (Non-Annex I Parties) and Climate Change Issue**

All remaining countries that are developing countries constitute this group, known as non-Annex Parties II. There are currently 145 countries. These parties are required to report on their steps taken by the respective governments to address climate change issue. These parties are also required to submit national communications but their timeframe is less strict than Annex-I parties and is also conditional with the receipt of the funds. These parties are not obliged to submit annual emission inventory and their national communications are not subject to in-depth review. Rather, there is a “Consultative Group of Experts on National Communications from non-Annex I parties”<sup>365</sup> to enable these developing nations to improve national communication and its preparation. The Convention also established financial mechanism<sup>366</sup> to provide financial assistance and technology transfer coupled with capacity building from Annex-II Parties to non-Annex-I Parties in order to enable them to address the climate change. This financial mechanism is operated as the Global Environment Facility (GEF).

### **3.2.3 Developing Countries and Global Environment Facility (GEF)**

UNFCCC also established Global the financial mechanism like the 1987 Montreal Protocol.<sup>367</sup> GEF has been established by the international community as an umbrella cover for these financial mechanisms. This facility aims to assist the developing countries in four global environmental areas; ozone depletion, climate change, biodiversity and international waters.<sup>368</sup> This facility enables former Soviet Union and the Easter European States to implement the Montreal Protocol as these states were not recognized as developing countries and emerged as economies in transition.<sup>369</sup> It is identified that US\$130 million has been earmarked for these

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<sup>365</sup> Cop 5 held at Bonn, Poland from 25 OCT-5 NOV 1999 to establish this consultative group.

<sup>366</sup> Art 11 UNFCCC

<sup>367</sup> Ibid

<sup>368</sup> Supra n 34

<sup>369</sup> Ibid

states.<sup>370</sup> This facility was administered and implemented by international agencies, UNDP, UNEP and the World Bank.<sup>371</sup>

### 3.2.4 Developing Countries and UNFCCC Objectives and Principles

The UNFCCC 1992 provided an objective for “sustainable development”<sup>372</sup> and guiding principles to protect the global climate by taking into account the different needs of the developed and the developing countries. It also provided the concept of “common but differentiated responsibilities”<sup>373</sup> to accommodate the distinctions drawn between the developing and the developed world. It also laid down the obligations for education, research, training and public awareness. It has built in mechanisms to deal with the complicated issues while embracing the old and new philosophies. This institutional mechanism consists of “Conference of Parties,”<sup>374</sup> “secretariat,”<sup>375</sup> “subsidiary body for scientific and technical advice,”<sup>376</sup> “subsidiary body for implementation,”<sup>377</sup> and a “financial mechanism.”<sup>378</sup> All these institutional mechanisms make it a dynamic and active convention having the capacity to deal the emerging new issues.

It is stated in its article 2<sup>379</sup> that prevention of dangerous interference is necessary to keep the climate system intact. It simultaneously balances out by recognizing that objective may be achieved after certain time and it is not possible to prevent all changes of a climate system. It recognizes that

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<sup>370</sup> Azerbaijan, Belarus, Bulgaria, the Czech Republic, Hungary, Poland, The Russian Federation, Slovakia, Slovenia, and Ukraine.

<sup>371</sup> Global Environment Facility <<http://www.gefweb.org/>

<sup>372</sup> Article 2, UNFCCC

<sup>373</sup> Ibid

<sup>374</sup> UNFCCC, [www.unfccc.org](http://www.unfccc.org)

<sup>375</sup> Ibid

<sup>376</sup> Ibid

<sup>377</sup> Ibid

<sup>378</sup> Ibid

<sup>379</sup> 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. (Article 2, Full Text of the Convention) [http://unfccc.int/essential\\_background/convention/background/items/1353.php](http://unfccc.int/essential_background/convention/background/items/1353.php)

changes are possible and acceptable. It suggests that ecosystem may adapt naturally to climate change; therefore it can be argued that “prevention of dangerous anthropogenic interference with the climate system” is not referring to the climate change.<sup>380</sup>

It is noteworthy that it carried the references of sustainable development and food production which are interpreted as an excuse to business as usual. It points out that economic development needs to be sustainable while making interventions for climate change.<sup>381</sup> It is also to be noted that climate change adversely affects the food production resulting in negating the economic development. Therefore, it is interpreted that the Parties have to take measures to prevent climate change in order to secure food production and sustainable development.<sup>382</sup> It is notable the Convention recognizes the developing countries a certain group of countries<sup>383</sup> which is vulnerable to the adverse impacts of climate change. It also included those countries with low-lying coastal areas and vulnerable to desertification and drought. In the same tune, it points to those developing countries gearing towards high economic development relying on fossil fuel production and commerce is also vulnerable to the “potential impacts of climate change response measures.”<sup>384</sup> It is worth mentioning that the Convention prescribes the activities such as investment, insurance, and technology transfer for the developing countries according to their special needs, concerns, and vulnerabilities.<sup>385</sup> It is noteworthy the Convention also provides special treatment to 48 parties as least developed countries<sup>386</sup> classified by the United Nations. It recognizes their limited capacity to “to respond to climate change and adapt to its adverse effects. Parties are urged to take full account of the special situation of LDCs when considering funding and technology-transfer activities.”<sup>387</sup>

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<sup>380</sup> Ibid

<sup>381</sup> Supra n 17

<sup>382</sup> Ibid

<sup>383</sup> Non-Annex I Parties

<sup>384</sup> UNFCCC, Parties & Observers, [http://unfccc.int/parties\\_and\\_observers/items/2704.php](http://unfccc.int/parties_and_observers/items/2704.php)

<sup>385</sup> Ibid

<sup>386</sup> Ibid

<sup>387</sup> Ibid

Its Article 3 provides a number of principles in order to further interpretation and negotiations of the Convention. It emphasizes that all 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 the common and differentiated responsibilities and respective capabilities. This principle has also been endorsed in Article 4 dealing with commitments. This principle is appreciated as the governing principle of the Convention which recognizes the differentiated responsibilities for the developed and the developing countries.<sup>388</sup> It is noteworthy that this principle is recognized as a guiding principle of international environmental law and policy in the Rio Declaration.<sup>389</sup> It specifically prescribes the “needs and special circumstances of developing country Parties....given full consideration.”<sup>390</sup> Apart from taking precautionary measures,<sup>391</sup> and recognizing the Parties rights for promoting the sustainable development, it recognizes that the Parties should cooperate for the promotion of a “supportive and open international economic system that would lead to sustainable economic growth and development in all Parties particularly developing country Parties.”<sup>392</sup>

### **3.2.5 Climate Change Convention and Developing Countries—Way Forward**

It is evident from the above discussion that international legal regime for the climate change envisages a special position for the developing countries like the 1987 Montreal Protocol. It also provides guidelines, principles and objectives specifically for the developing countries by relying on the international environmental principles. It has complicated institutional mechanisms for the ongoing flexible negotiations to be adjusted all the Parties and also has an additional Kyoto Protocol prescribing the emission targets but in spite of all these special provisions, developing countries role in

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<sup>388</sup>Unitar, Kiss, A, Introduction to International Environmental Law

<sup>389</sup> Ibid

<sup>390</sup> Supra n 140

<sup>391</sup> to anticipate, prevent or minimize the causes of climate change and mitigating its adverse effects—Article 3

<sup>392</sup> Ibid

protecting the climate change is questionable. In spite of availing all the mechanisms for technology transfer, time allowances, financial aids, their seriousness to the issue needs special attention in further ongoing UNFCCC negotiations. These countries raise their own arguments based on the economic development in order to get rid of poverty and population explosion, capacity building and technical advancement. All their arguments are well accommodating in the convention principles and guidelines but no concrete results are visible. This issue is independently and specifically dealt in the independent chapter (chapter 4) of this thesis.

### **3.3 Developing Countries: International Environmental Principles**

International environmental law has its own principles (described below) but also includes the general principles of international law.<sup>393</sup> These principles are designed to achieve the stability in international environmental agenda.

#### **3.3.1 The Principle of Co-operation**

The principle of cooperation is considered the primary norm of international law. It has been evolved over the years keeping in view of the need for states to cooperate with each other in establishing the norms of international law and to resolve the disputes in peaceful manner. This very basic requirement has been met through numerous bilateral, multilateral, regional and international treaties. These treaties or conventions are enforced through numerous institutions, international, regional or bilateral, depending upon their nature. This principle of cooperation has been endorsed by the UN General Assembly through its resolution 2995 (XXVII) in December 15, 1972. The Stockholm Declaration states in principle 24 that “international matters concerning the protection and improvement of the environment should be

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<sup>393</sup> State Sovereignty, Duty to Co-operate, Interstate Relations, etc

handled in a cooperative spirit by all countries”. Similarly, the article 7 of Rio Declaration requires all states to “cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem”. In the same manner, UN Law of the Seas 1982 requires all states in article 197 to “cooperate on a global basis..... for the protection and preservation of the marine environment”.

The world Charter 1982 also lays stress for states cooperation in carrying out efforts for the conservation of nature. The principle 9 of Rio Declaration also insists this cooperation for capacity building, sharing of scientific and technical knowledge for environmental protection. This provision has been adopted by other environmental instruments like United Nations Framework on Climate Change Convention 1992 (UNFCCC) requires in its Article 4(5) the technology transfer and finance facility from developed to developing countries. So, it is crystal clear the international environmental law inherits the principle of co-operation from customary international law to enforce its norms. This cooperation spirit has also been endorsed in the field of hazardous material. The Principle 14 of Rio Declaration strengthened the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal by stressing the need for cooperation for relocation and transfer of hazardous waste from one state to another and requires all states to respect the ban if other state has banned or restrict the movement of hazardous material.

### **3.3.2 The Principle of Preservation**

This is another principle forming the basis on international environmental regime. The essence of all the international environmental treaties and conventions require states to cooperate for the preservation and protection of the environment and to avoid such activities which are harmful or causing damage to the environment. UNLOS 1982 specifically endorses this in its Article 192 by stating that all “states have the obligations to protect and preserve the marine environment”. In the same manner, the 1992

Convention on Biological Diversity prescribes the measures in order to ensure conservation while exploiting the biological resources and to integrate such steps in national plans and policies. Similarly, UNFCCC requires all parties in its article 3(1) to protect the climate for the future generation. It is noteworthy that regional conventions also require conserving and protecting the natural resources.<sup>394</sup>

The following are the specifically environmental principles.

### **3.3.3 The Prevention Principle**

This principle requires all states including developing countries to act in a reasonable manner in public and private activities not to cause damage to the other states. This approach does not impose duty but requires all states to act in good faith. It is noteworthy that this approach is recognized but not enshrined in international instruments. This approach can be applied through risk analysis of planned activities, adoption of preventive plans and strategies. The article 206 of UNCLOS 1982 and the 1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context in its preamble recognize this approach.

### **3.3.4 Polluter Pays Principle**

This principle was formulated by OECD to pay for the environmental damage. Its primary purpose was to discourage environmental harm to encourage free international trade but afterwards, it was accommodated by the Rio Declaration in its Principle 16 by introducing the concept of “internationalization of environmental costs” which “polluter should, in principle, bear the cost of pollution”. In this way, it also prohibits states to exploit their economic resources but in sustainable manner or

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<sup>394</sup> The 1968 African Convention on the Conservation of Nature and Natural Resources (Article 2 requires all parties “to ensure conservation, utilization, and development .....resources”), The 1979 Bern Convention on the Conservation of European Wildlife and Natural Habitats (Article 1 requires to conserve wild flora and fauna and their natural habitat), The 1985 ASEAN Agreement (Article 1 requires all contracting parties to preserve ecological processes, genetic diversity and to ensure the productivity of natural resources by taking steps in their national legislations)

to pay for irresponsible environmental activity to avoid the distortion of international trade and investment.

It is noteworthy that most developing countries have to internalize the polluter pays principle in their environmental policy guidelines.<sup>395</sup> The main stumbling block is their economic conditions and broad definition of polluter.<sup>396</sup> It is argued from developing countries bloc that large number of poor household and medium scale business concerns including farmers will not be able to bear the additional expense of energy and waste disposal.<sup>397</sup> In the same tune, their exporters will lose the foreign customers upon shifting the burden of internalization of this principle.<sup>398</sup>

### **3.3.5 Principle of Common but Differentiated Responsibilities**

The principle of common but differentiated responsibilities is recognized a guiding principle of international environmental law and policy making. It was first proclaimed by the Rio Declaration in its principle 7 which requires all

“States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit to sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command”<sup>399</sup>.

The close analysis of above mentioned principle reveals that all states bear the responsibility to take appropriate measures to save the Earth's ecosystem but developed countries acceded to provide technical and financial assistance for the restoration of global environment. It draws a line of distinction between responsibility and liability. Responsibility is the moral and

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<sup>395</sup> Polluter Pays Principle, India Law, <http://www.indlaw.com/display.aspx?2601>

<sup>396</sup> Ibid, in legal terminology, a 'polluter' is someone who directly or indirectly damages the environment or who creates conditions relating to such damage. Clearly, this definition is so broad as to be unsupportive in many situations

<sup>397</sup> Ibid

<sup>398</sup> Ibid

<sup>399</sup> UNEP, Rio Declaration on Environment and Development, Principle 7, <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=78&ArticleID=1163>

political concept whereas liability arises upon the violation of law<sup>400</sup>. International environmental regimes are the result of complex multilateral negotiations spreading over the years with an end to punish the polluter, avoid the damage through precaution and restore the damage through common effort. This environmental law principle “common but differentiated responsibilities” require all states to take part in the restoration of the damaged global environment. In principle 7 of Rio declaration, developed nations accepted their “increased participation” for sustainable development.<sup>401</sup> This principle was recognized by other global environmental conventions as well since 1989<sup>402</sup>.

### **3.3.5.1 Common but Differentiated Responsibility and the Climate Change Convention Groupings**

It is the 1992 UN framework convention on climate change which assigns the responsibility to all states for reducing Greenhouse gases (GHG) but at the same time draws a differentiation between these states for their contribution. UNFCCC clearly incorporates this principle in its preamble, set of principles and throughout article 4. It can be attributed the major feature of the Convention. The following lines critically view the Convention to highlight the principle of common but differentiated responsibilities. UNFCCC is an historic instrument in the global environmental management. It was adopted on 9<sup>th</sup> May 1992 by the world’s governments. On 11<sup>th</sup> December 1997, Kyoto Protocol was adopted which introduced the new dimension of “legally-binding constraints on greenhouse gas emissions and innovative mechanisms aimed at cutting the cost of curbing emissions”<sup>403</sup>. The Climate Change Convention signifies the vital relationship between national economy and international

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<sup>400</sup> Kiss, A. (1997). Introduction to International Environmental Law, Geneva: UNITAR, p. 112

<sup>401</sup> Ibid.

<sup>402</sup> The 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, The 1987 Montreal Protocol on the Protection of the Ozone layer (as amended 1992), The 1992 Convention on Biological Diversity, The 1992 Convention on Climate Change.

<sup>403</sup> [www.unfccc.org](http://www.unfccc.org).

environmental agenda<sup>404</sup>. It emphasized that prevention of climate change is the primary objective by stabilizing greenhouse gas concentrations in the atmosphere “at a level that would prevent dangerous anthropogenic interference with the climate system”<sup>405</sup>. At the same time, It recognized that some climate change is inevitable and the objective must be achieved in such a way as 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”<sup>406</sup>.

The Convention divides the nations into two main groups; countries which are listed in Annex-I are known as Annex-I Parties and the rest of the countries, not listed, are known as non-Annex-I Parties. This is the division of the developed and the developing countries based on their industrial progress, technical innovations and skills and sound social and political setup to implement the environmental agenda coupled with healthy financial resources. There are 41- Annex-I Parties. All are industrialized nations who contributed to the environment damage or climate change due to their emissions. Its Article 4 is the one which applies to all nations to highlight their commitments with global environmental agenda.

### **3.6 Developing Countries and Sovereignty Principle Issue**

The principle of state sovereignty has the paramount importance in customary international law. In international law, it refers to the effectiveness and independence of the state on its population, defined territory, government and capacity to enter into relations with other states. These four elements were mentioned in the article 1 of 1933 Montevideo Convention on Rights and Duties of States. As new streams of international law developed in the last century like international environmental, human rights, humanitarian laws; this principle of state sovereignty attracted significant scholarship. The purpose of all this scholarly analysis is to establish the compatibility of sovereignty principle with the new challenges. These new challenges (environmental values) threatened the very

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<sup>404</sup> P. Sands, (1995), Principles of International Environmental Law, Manchester University Press: p 273.

<sup>405</sup> Art. 2. The climate system is defined as “the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions.”

<sup>406</sup> Ibid.

basics of sovereignty principle. These are considered to override the sovereignty principle as environmental pollution knows no boundaries. The independent act of any state can cause environmental damage to the other state like polluting the river waters, transportation of radioactive waste in exclusive economic zones of coastal states and the list goes on.

The coming lines look into the principles, embedded in international law and environmental treaties, to honour the sovereignty principles while implementing environmental policies. Before, describing those principles, it is appropriate to mention that principle 21 of Stockholm Declaration allows states “the sovereign right to exploit their own resources pursuant to their own environmental policies” but it is noteworthy that environmental treaties limit the independence of the contracting states. This limitation flows from the customary international law which requires honoring the diplomats, respecting the international borders and cooperation with other states to enforce the jurisdiction against universal crime like piracy, genocide, war crimes, hijacking and now terrorism.

### **3.6.1 The Principle of Co-operation and Environmental Protection**

The principle of cooperation is considered the primary norm of international law. It has been evolved over the years keeping in view of the need for states to cooperate with each other in establishing the norms of international law and to resolve the disputes in peaceful manner. This very basic requirement has been met through numerous bilateral, multilateral, regional and international treaties. These treaties or conventions are enforced through numerous institutions, international, regional or bilateral, depending upon their nature. This principle of cooperation has been endorsed by the UN General Assembly through its resolution 2995 (XXVII) in December 15, 1972. The Stockholm Declaration states in principle 24 that “international matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries”. Similarly, the article 7 of Rio Declaration requires all states to “cooperate in a spirit of global partnership to

conserve, protect and restore the health and integrity of the Earth's ecosystem". In the same manner, UN Law of the Seas 1982 requires all states in article 197 to "cooperate on a global basis..... for the protection and preservation of the marine environment".

The world Charter 1982 also lays stress for states cooperation in carrying out efforts for the conservation of nature. The principle 9 of Rio Declaration also insists this cooperation for capacity building, sharing of scientific and technical knowledge for environmental protection. This provision has been adopted by other environmental instruments like United Nations Framework on Climate Change Convention 1992 (UNFCCC) requires in its Article 4(5) the technology transfer and finance facility from developed to developing countries. So, it is crystal clear the international environmental law inherits the principle of co-operation from customary international law to enforce its norms. This cooperation spirit has also been endorsed in the field of hazardous material. The Principle 14 of Rio Declaration strengthened the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal by stressing the need for cooperation for relocation and transfer of hazardous waste from one state to another and requires all states to respect the ban if other state has banned or restrict the movement of hazardous material.

It is evident from the foregone discussion that cooperation among all states, contracting parties of international environmental treaties, is essential for the implementation of the environmental agenda. The principle of cooperation, in this way, limits their freedom to act which is enshrined in the principle of state sovereignty.

### 3.6.2 The Principle of Preservation and Protection of the Environment

This is another principle forming the basis on international environmental regime. The essence of all the international environmental treaties and conventions require states to cooperate for the preservation and protection of the environment and to avoid such activities which are harmful or causing damage to the environment. UNLOS 1982 specifically endorses this in its Article 192 by stating that all “states have the obligations to protect and preserve the marine environment”. In the same manner, the 1992 Convention on Biological Diversity prescribes the measures in order to ensure conservation while exploiting the biological resources and to integrate such steps in national plans and policies. Similarly, UNFCCC requires all parties in its article 3(1) to protect the climate for the future generation. It is noteworthy that terms “protect”, “preserve” and “conservation” have attracted scholarly efforts in establishing their meanings in this regard but such appraisal fall outside the scope of this assignment.

It is noteworthy that following regional conventions also require conserving and protecting the natural resources.

- The 1968 African Convention on the Conservation of Nature and Natural Resources (Article 2 requires all parties “to ensure conservation, utilization, and development .....resources”)
- The 1979 Bern Convention on the Conservation of European Wildlife and Natural Habitats (Article 1 requires to conserve wild flora and fauna and their natural habitat)
- The 1985 ASEAN Agreement (Article 1 requires all contracting parties to preserve ecological processes, genetic diversity and to ensure the productivity of natural resources by taking steps in their national legislations)

The above discussion also reveals that principle of protection and preservation requires all states to exploit natural and marine resources in sustainable manner. All the states are required to implement safeguards to preserve and protect the environment by taking legislation in their individual jurisdiction. Whereas UN charter declares that “nothing contained in this charter shall authorize the United Nations to intervene.....within the domestic jurisdiction of any state...” but this principle requires all states to legislate measures for environmental protection which takes precedence on the traditional principle of state sovereignty.

Apart from two principles described above, there are other environmental norms which have been established for the smooth relations of the states. These are described below in brief.

### **3.6.3 Prevention Approach**

This norm requires all states to act in a reasonable manner in public and private activities not to cause damage to the other states. This approach does not impose duty but requires all states to act in good faith. It is noteworthy that this approach is recognized but not enshrined in international instruments. This approach can be applied through risk analysis of planned activities, adoption of preventive plans and strategies. The article 206 of UNCLOS 1982 and the 1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context in its preamble recognize this approach.

### **3.6.4 Precautionary Principle**

It is identified the most important norm in environmental agenda. It was first used in the international conference on the North Sea in 1987. Afterwards, it was accommodated in all international instruments. The Rio Declaration adopts this in its Principle 15 by stating that “in order to protect the environment, the precautionary principle shall be widely applied by states

according to their capabilities”. It is notable that precaution approach is more developed and matured as compared to preventive approach as it deals with the environmental harm particularly when it is irreversible. This principle needs scientific knowledge with certainty to be applied and demands policy makers to adopt flexible approach as scientific knowledge is not static or at least credible evidence for scientific consensus.

### **3.6.5 Polluter Pays Principle**

This principle was formulated by OECD to pay for the environmental damage. Its primary purpose was to discourage environmental harm to encourage free international trade but afterwards, it was accommodated by the Rio Declaration in its Principle 16 by introducing the concept of “internationalization of environmental costs” which “polluter should, in principle, bear the cost of pollution”. In this way, it also prohibits states to exploit their economic resources but in sustainable manner or to pay for irresponsible environmental activity to avoid the distortion of international trade and investment.

In addition to above mentioned, following steps have been introduced by international environmental law to protect the environment.

- Information and assistance in environmental emergencies  
(States shall immediately notify other states)--- Principle 18, the Rio Declaration, it has been outlined in *Corfu Channel Case*.
- Information and consultation in cross-boundary relation  
(States shall provide prior and timely notification....)---Principle 19, the Rio Declaration.

It can be argued from the above discussion that principles of customary international law coupled with approaches, developed by environmental norms, influence the principle of state sovereignty as these restrict the sovereign states to act according to their own will and force them to domesticate the international environmental laws. It reflects that environmental agenda takes precedence over sovereignty principle but it is designed to provide safeguard for the humanity and ecology which can be attributed two important elements of statehood in terms of population and territory respectively.

## **4. Developing Countries and Legal Framework of Climate Change**

### **4.1 Introduction**

This chapter is aimed to critically appreciate the efforts of the World community to address the climate change problem in the legal domain through international regime which admirably tries to accommodate all groups of nations with respective treatment. This chapter will present in depth analysis and critical view of UNFCCC and its Kyoto Protocol with Conference of Parties to highlight the incorporated mechanisms, applicable to developing countries with their current obligations. This chapter is in sequence of preceding chapters with a view to bring out the essence of legal problem, faced by developing countries in climate change negotiations coupled with outlining the need to seek the active support and contribution of developing countries.

### **4.2 The Evolution of United Nations Framework Convention on Climate Change (UNFCCC) and Developing Countries Deadlock over Negotiations**

Although environmentalists started pressurizing the international community to control the climate change resulting from global warming in the 1960s and the 1970s, it was only in 1988 that an Intergovernmental Panel on Climate Change (IPCC) was created by the World Meteorological Organization and the United Nations Environment Programme (UNEP) to provide the governments of the world a scientific view of the shift in the global climate. The findings of the IPCC in its first assessment report in 1990 unveiled the importance of climate change as an issue requiring state sanctioned political action and was instrumental in the creation of the United

Nations Framework Convention on Climate Change (UNFCCC), the most significant treaty to reduce global warming and cope with the consequences of climate change.<sup>1</sup> Compared to other international conventions, the negotiation of the UNFCCC was a speedy process and it was ready for signature at the 1992 United Nations Conference on Environment and Development, also known as the “Rio Earth Summit” as it took place in Rio de Janeiro. The UNFCCC was one of the three international treaties adopted at this conference which is collectively referred to as the “Rio Conventions”. The other two treaties were the Convention on Biological Diversity (CBD)<sup>2</sup>, and the United Nations Convention to Combat Desertification (UNCCD)<sup>3</sup>. The Rio Conventions are linked to each other because climate change which is dealt with under the UNFCCC affects biological diversity and desertification. This is because the consequences of climate change will involve the loss of animal and plant species and deterioration in the dryland and semi-arid terrain around the world. Therefore, in order to encourage cooperation between the secretariats of the three conventions, a Joint Liaison Group (JLG) was established in 2001. The mandate of this group is to share information, coordinate activities and develop methods that can simultaneously all three problems (a benefit known as “synergy”).

The UNFCCC entered into force on 21 March 1994 and now enjoys almost universal membership as 192 countries around the world are parties to it. The Convention sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The UNFCCC sets the ultimate objective of stabilizing greenhouse gas concentrations in the atmosphere to a level that would prevent dangerous anthropogenic or human-induced interference with the climate system. It further specifies that this level should be achieved within a time frame that is sufficient to allow

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<sup>1</sup>United Nations Framework Convention on Climate Change (UNFCCC) website: <http://unfccc.int>

<sup>2</sup>Convention on Biological Diversity (CBD) website: [www.cbd.int](http://www.cbd.int)

<sup>3</sup>United Nations Convention to Combat Desertification (UNCCD) website: [www.unccd.int](http://www.unccd.int)

ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to precede in a sustainable manner.<sup>4</sup> In addition to this, the UNFCCC requires all parties in view of “their common but differentiated responsibilities” to develop and regularly update national inventories of greenhouse gas emissions. This basic principle established in the UNFCCC of “common but differentiated responsibilities” still holds utmost importance in negotiations of the UNFCCC. With a few exceptions, the "base year" for tabulating greenhouse gas emissions for developed countries has been set as 1990<sup>5</sup>. Countries ratifying the treaty agree to take climate change into account in such matters as agriculture, industry, energy, natural resources and activities involving sea coasts<sup>6</sup>. They also to develop national programmes to slow down climate change<sup>7</sup>.

An important feature of the Convention is that it places the heaviest burden for fighting climate change on developed or industrialized nations, since they are the source of most past and current greenhouse gas emissions and because they are wealthier and more able to incur costs of any necessary changes in their economies<sup>8</sup>. For this purpose, the parties to the Convention

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<sup>4</sup>United Nations Framework Convention on Climate Change (UNFCCC), Article 2 states 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 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.”

<sup>5</sup> UNFCCC, Article 4(2)(b)

<sup>6</sup> UNFCCC, Article 4(1)(c) states that all Parties shall, “Promote and cooperate in the development, application and diffusion, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol in all relevant sectors, including the energy, transport, industry, agriculture, forestry and waste management sectors.”

<sup>7</sup> UNFCCC, Article 4(1)(b) states that all Parties shall, “Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to mitigate climate change by addressing anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, and measures to facilitate adequate adaptation to climate change.”

<sup>8</sup> UNFCCC, “*Noting* that the largest share of historical and current global emissions of greenhouse gases has originated in developed countries, that per capita emissions in developing countries are still relatively low and that the share of global emissions originating in developing countries will grow to meet their social and development needs.”

are categorized into three main groups. Parties listed in the first annex to the Convention and called the “Annex I” countries are those countries which were members of the Organization for Economic Co-operation and Development (OECD) in 1992 plus countries with their economies in transition (EIT Parties). The parties listed in the second annex are developed countries which were members of the OECD but not countries with economies in transition and are commonly known as the “Annex II” countries. These countries are required to provide financial resources to developing countries to enable them to undertake emissions reduction activities under the Convention and to help them adapt to adverse effects of climate change. In addition, they have to "take all practicable steps" to promote the development and transfer of environmentally friendly technologies to EIT Parties and developing countries. The third and final group, called the “Non-Annex I”, consists of mostly developing countries the industrialized nations agree under the Convention to support climate change activities in the developing countries by providing financial support above and beyond any financial assistance which they already provide to them and also to share technology with these countries. The Convention acknowledges the vulnerability of developing countries to climate change and calls for additional efforts to address the special needs and concerns of these states.

Developing Countries always rested their position on the principle of common but differentiated responsibility and participated in the COPs keeping in view of this principle which resulted in deadlocks. This deadlock seemed resolved in Durban but developing countries started interpreting in new directions, revealed in following lines.

#### 4.2.1 Durban Conference: New Round of Negotiations for Effective Uniform International Climate Agreement by 2015, Seismic Shift

The United Nations Climate Change Conference in Durban started with grim hope in the backdrop of Copenhagen Accord and Cancun Agreement where developing countries remained glued to their position of differential treatment as enunciated by Climate Change Convention 1992 in its Article--- but surprisingly ended with a unanimous decision to launch a process to develop “a protocol, another instrument or an agreed outcome with legal force under the Convention applicable to all parties.”<sup>9</sup> It is pointed out that COP delegates did not start negotiations with this end but in the last moment, “marked by high tension, high drama and sleepless night,”<sup>10</sup> which was extended up to 36 hours from the scheduled finishing line, European Union won the support of Association of Small Island States (AOSIS), Least Developing Countries (LDCS), Brazil and South Africa from BASIC nations groups, last moment China decision to support to introduce the most critical words “applicable to all parties” to the decision text, whereas through out in the negotiating history of the Convention 1992, the distinction between the developed countries and developing countries remained visibly concrete in all decisions.<sup>11</sup> It is identified that Convention Parties arrived at this decision “for the first time in the history of the climate change regime.”<sup>12</sup> This development ushered into a new era of negotiating climate talks with the paradigm shift in the bedrock principle of the convention; “common but differentiated responsibility”<sup>13</sup> which is also considered an important driver in developing the soft body of environmental law since 1972.<sup>14</sup> It is considered, by and large, from all concerned quarters and camps “a turning point in climate change

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<sup>9</sup> Decision 1/CP.17, paragraph 2

<sup>10</sup>Rajamani, L. (2012). The DURBAN PLATFORM FOR ENHANCED ACTION AND THE FUTURE OF THE CLIMATE REGIME. *International & Comparative Law Quarterly*, 61(02), 501-518

<sup>11</sup> Ibid, See Decision 1/CP.17,

<sup>12</sup> Ibid

<sup>13</sup> UNFCCC Article...

<sup>14</sup> Chapter 3

negotiations”<sup>15</sup> where all governments unanimously recognized the needs of time and agreed to “draw up the blueprint for a fresh, universal, legal agreement to deal with climate change beyond 2020”<sup>16</sup> with shared vision to act together according to the best of concerned abilities and to enjoy the benefits of success together while keeping a tight focus upon the objective of the Climate Change Convention which is “to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent our dangerous interference with the climate system and at the same time will preserve the right to sustainable development.”<sup>17</sup> It is noteworthy that Durban outcome is related to deal with challenges in a more connected way by outlining the roadmap for implementation which included second commitment period of the Kyoto Protocol,<sup>18</sup> launching of new platform for negotiations,<sup>19</sup> conclusion of previous set of negotiations under the Ad Hoc working Group on Long-term Cooperative Action Under the Convention (AD-LCA),<sup>20</sup> and global review of climate change challenges in the light of “the best available science and data”<sup>21</sup> to determine the rise in temperature, lowering below 1.5 degree or up to two degree is enough in order to ensure the concerted, coordinated and collective global response.<sup>22</sup>

COP 17 adopted series of interconnected landmark decisions to be known as “balanced package”<sup>23</sup> but at the same time recognizing the insufficient ambition which needs to be dealt urgently now and after 2020 “to bring the

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<sup>15</sup> UNFCCC, Durban: Towards full implementation of the UN Climate Change Convention. <http://unfccc.int/keysteps/Durbanoutcomes/items/6825.php>

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> It is interim period from 2012-2020; whereas new international treaty to be negotiated by 2015 to be enforced by 2020

<sup>19</sup> UNFCCC, COP 17 Decisions, 1.CP/17, FCCC/CP/2011/9/Add.1, establishing an Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP)

<sup>20</sup> It is noted that MOP 17 agreed to decide that the second commitment period under the Kyoto Protocol shall begin on 1 January 2013” but the mechanism how the second period will be established, its rules, procedures for the existing commitments under the protocol and its continuity after 31 December 2012 left for the next COP 18 at Doha to deal with.

<sup>21</sup> Supra n 59

<sup>22</sup> Ibid

<sup>23</sup> Recio, E. (2012). On the Road to Doha: Will the Bell Toll for the Kyoto Protocol. *IISD Policy Update*, 12

aggregate ambition level in line with what science recommends.”<sup>24</sup> It carries the reference to the upcoming Fifth Assessment Report of the Intergovernmental Panel on Climate Change to be taken into account to synchronize the process to develop a new universal legal regime and to be considered into “the outcomes of 2013-2015 review and the work of the subsidiary bodies.”<sup>25</sup> It is noted that cooperation at all levels; local, national, regional and international is required to reduce the global emissions and to tailor the new climate change agreement in 2015.<sup>26</sup> It is decided to launch “a work plan on enhancing mitigation ambition to identify and to explore options for a range of actions that can close the ambition gap with a view to ensuring the highest possible mitigation efforts by all parties.”<sup>27</sup>

### **4.3 Developing countries Concerned about Seismic Shift instead of “Balanced Package”**

It is noted that COP 17 at Durban gave birth to new round of climate change negotiations by inserting the phrase “applicable to all parties,”<sup>28</sup> recognizing the gaps between ambition and mitigation efforts,<sup>29</sup> agreement to operationalize the Green Climate Fund (GCF),<sup>30</sup> initiating the talks for new international climate agreement by 2015 applicable to all by 2020<sup>31</sup> and agreement to extend commitments under Kyoto Protocol by 2020,<sup>32</sup> the developing countries remained concerned and elusive to all developments particularly African countries and India.

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<sup>24</sup>Bisiaux, A. (2012). Promising Winds and Threatening Clouds-A Forecast of the Level of Ambition of the Durban Platform. *IISD Policy Update*, 11

<sup>25</sup> UNFCCC, COP 17 Decisions, Decision 1/CP.17, Para 6

<sup>26</sup> Supra n 59

<sup>27</sup> UNFCCC, COP 17 Decisions, Decision 1/CP.17, Para 7

<sup>28</sup> Durban Action Platform outcome at the last moment

<sup>29</sup> Developing countries non-seriousness towards capping the emissions

<sup>30</sup> Established to support for developing countries for technology transfer

<sup>31</sup> Deadline when new treaty will be enforced eliminating the differences between developed and developing countries.

<sup>32</sup>Ibi

The host country demanded to adopt the spirit of “UBUNTU,”<sup>33</sup> the advancement of “Mahatma Gandhi”<sup>34</sup> philosophy by Indian delegation about the operationalization of the Cancun agreement, Nelson Mandela effort to introduce new political geometry by eliminating all the differences among the EU, AOSIS, LDCs, and BASIC countries<sup>35</sup> and the new vision to COP president philosophy by Bill Gates,<sup>36</sup> the developing nations could not comprehend the issues at hand and stuck to their guns for the convention principle of common but differentiated responsibilities and respective capabilities till the last moments when the European Union made the show with the support of LDCs, China and Brazil while inserting the phrase “applicable to all parties.” It is quite disheartening that developing countries started making their resentments after the conclusion of COP 17 particularly at the time when efforts were being made for RIO+20 and COP 18 at Qatar. The following lines encompass the developing countries reservations.

#### **4.4 Developing Countries Perceived Climate Change Negotiations linked to International Politics**

It is notable that most of developing countries reached Durban with the agenda formulated in The light of Bali Action Plan (BAP) 2007 and the Cancun agreement 2009. These countries developed their understanding on IPCC reports; Climate Change Convention rules coupled with Kyoto Protocol but viewed the efforts of developed countries and industrial nations to address the issue of climate change upon the basis of international politics.<sup>37</sup>

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<sup>33</sup>It is an African Proverb “I am because you are” conveying the sense of Interdependence across time and space. COP President MaiteNkoana-Mashabane pronounced this hoping that parties would act in wisdom “coming together to solve common challenges for the larger community.” IISD. (2011, 13/12/2011). *Summary of the Durban Climate Change Conference*, presented at the Earth Negotiations Bulletin.

<sup>34</sup> Gandhi pronounced that only “Honest differences are often a healthy sign of progress” IISD. (2011, 13/12/2011). *Summary of the Durban Climate Change Conference*, presented at the Earth Negotiations Bulletin.

<sup>35</sup> Nelson Mandela voiced that “Only free men negotiate. Your freedom and mine cannot be separated.”

<sup>36</sup> Bill Gates introduced “VIRTUAL INDABA” that “the internet is the town square for the global village”

<sup>37</sup>TWN. (2012). *Durban Assessment and Bonn 2012*

Their misalignment in the approach further complicated the ongoing process of climate change talks for COP 18.<sup>38</sup> These countries developed the notion that developed nations blocs aimed to reduce the impacts of climate change in their own “societies and economies, by limiting or avoiding the costs, or shifting them to others.”<sup>39</sup> Their this misunderstanding of shifting the burden to others and uniform approach of future international climate treaty resulted in diametrically opposed direction with firm belief that “these rich countries want to dismantle the existing rules that apply to them, shift the burden to developing countries through new rules, and fundamentally alter the balance of rights and obligations in the UN.”<sup>40</sup>

#### **4.5 Developing Countries unrest over premature termination of AWG-LCA**

The Philippines delivered a joint statement on behalf of 36 developing countries<sup>41</sup> in Bonn Climate talk (25 May 2012) where these countries appreciated “the collective guidance and wisdom”<sup>42</sup> for the ongoing process and objective of the Ad-hoc working group on the Durban Platform on Enhanced Action (ADP) but also criticized between the lines over the premature termination of AWG-LCA. It pointed out that Durban outcome intended to extend the AWG-LCA mandate till an agreed outcome is reached. It highlighted the inevitable interconnectedness of AWG-LCA and AWG-KP for COP 18 negotiations. It endorsed the importance of LCA due to a “depository of several actions in terms of adaptation, technology, finance, and capacity building, and not just of mitigation actions.”<sup>43</sup>

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<sup>38</sup> Justice, C. (2012). *Climate, Development and Equity*

<sup>39</sup> Ibid

<sup>40</sup> Ibid

<sup>41</sup> Algeria, Argentina, Bahrain, Bolivia, Comoros, China, Cuba, Democratic Republic of Congo, Dominica, Djibouti, Ecuador, Egypt, El Salvador, India, Iran, Iraq, Jordan, Kuwait, Libya, Malaysia, Mali, Mauritania, Morocco, Nicaragua, Oman, Palestine, Pakistan, Paraguay, Saudi Arabia, Somalia, Sri Lanka, Sudan, Syria, Thailand, Tunisia, Venezuela, Yemen, and the Philippines, UNFCCC. (2012). *Joint Statement on the Closing Plenary Session of the Ad-Hoc Working Group on the Durban Platform on Enhanced Action*, from [unfccc.int/files/documentation/...from.../adp\\_philippines\\_28052012.pdf](http://unfccc.int/files/documentation/...from.../adp_philippines_28052012.pdf)

<sup>42</sup> Ibid

<sup>43</sup> Ibid

It raised the alarm that termination of LCA and KP under BAP would only jeopardize the “fundamental principles of equity and of common but differentiated responsibilities and the differentiation between Annex-I and non-Annex-I countries under the convention.”<sup>44</sup> It identified delicately that inequitable burden on developing countries would only transfer the obligations of developed nations whose mitigation commitments are quantified. It is further recommended that there must be “a fair, equitable and comprehensive LCA outcome at COP 18”<sup>45</sup> and it is also emphasized that this outcome must be synchronized with BAP and the Cancun agreement.<sup>46</sup> It is further reiterated that environmentally sound technologies must be transferred to developing countries in accordance to the objective of the Convention and the cooperative sectoral approaches must be in accordance with the Bali Action Plan as enunciated in Article 4 (1) (c) of the convention.<sup>47</sup>

It further elucidated that these approaches must in consistent with the principle of equity, common but differentiated responsibilities as outlined in Article 4 (3) (5) (7) by also considering the differences in geographic, economic, and social conditions, priorities and circumstances of the developing countries.<sup>48</sup> It mentioned that poverty eradication is the first and overriding priority of developing country with the indication that there shall not be new commitments for developing countries while focusing on not creating “barriers and distortions in international trade, in particular for the exports of developing country Parties.”<sup>49</sup>

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<sup>44</sup> Ibid

<sup>45</sup> Statement of the Group 77 and China delivered by Ambassador Latif Benazza of Algeria

<sup>46</sup> Ibid

<sup>47</sup> UNFCCC. (2012). *Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, from [http://unfccc.int/essential\\_background/library/items/3599.php?such=j&author=%22Algeria%22#beg](http://unfccc.int/essential_background/library/items/3599.php?such=j&author=%22Algeria%22#beg)

<sup>48</sup> Ibid

<sup>49</sup> Ibid

It is notable that parties remained divided after Durban and even Bangkok climate talks 2012 could not bring any comfortable level among parties. This division came to lime light due to different interpretation of different parties of Durban language. The terms “protocol”, “another legal instrument” and “an agreed outcome with legal force” generated this interpretation dilemma to parties coming to Durban with different dimensions to push climate talks and ended up in confusing scenario for the form of the future climate agreement.<sup>50</sup> Apart from this different interpretations based upon different expectations, Parties also remained concerned about the work, carried out under LCA mandate and in the absence of any solid mechanism to transfer all suck work to DP and the looming uncertainty of its relationship with proposed negotiations under DP.<sup>51</sup> In the same tune, Parties also confused about those issues which could not be concluded under LCA and how such half debated or half settled issues having the potential for agreements could be treated under ADP.<sup>52</sup> In this scenario, only one direction was crystal clear that “progress under the ADP and LCA are increasingly interdependent and potentially repetitive.”<sup>53</sup>

#### **4.6 Developing Countries Emphasis on addressing loss and damage—Instead of assessing loss and damage by developed countries—Emphasis on assessing Non-Economic Losses—Stress to develop international mechanism on loss and damage**

The developing countries and the developed nations could not get along on “Work Programme on loss and damage.”<sup>54</sup> This work programme coming

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<sup>50</sup>Aguilar, J. B. a. S. (2012). Scenarios and Sticking Points under the Durban Platform: The long and winding road to 2020. *IISD Policy Update*.

<sup>51</sup> Ibid, Mechanisms developed under convention like NAMAs, REDD+, Technology Transfer, Adaptation

<sup>52</sup> Ibid, uncertainty whether convention bodies would take up such pending agreements in pipeline or drop altogether from climate agenda

<sup>53</sup> Ibid

<sup>54</sup>UNFCCC Decision 7/CP.17, UNFCCC. (2012). *Work Programme on Loss and Damage*, from <http://unfccc.int/documentation/decisions/items/3597.php?dec=j&such=j&cp=/CP>

from the Cancun Agreement under AWG-LCA (1.CP.16) was further elaborated in Durban in three following thematic areas.

- Assessing the risk of loss and damage associated with the adverse effects of climate change and the current knowledge on the same<sup>55</sup>
- A range of approaches to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, taking into consideration experience at all levels<sup>56</sup>
- The role of the Convention in enhancing the implementation of approaches to address loss and damage associated with the adverse effects of climate change.<sup>57</sup>

It is quite interesting that developing countries agreed in Durban elaboration (7/CP.17) on above three thematic areas but developed differences in preparatory meetings<sup>58</sup> to COP 18. These differences can be the best categorized as “risk assessment versus risk management.”<sup>59</sup> It is identified that the developing countries asserted for technology transfer to develop capacity building “supported with technical and financial assistance.”<sup>60</sup> It is notable that developed countries<sup>61</sup> wanted to have “step-wise process”<sup>62</sup> whereas developing countries<sup>63</sup> disagreed with this step-wise approach and emphasized to address it “holistically.”<sup>64</sup>

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<sup>55</sup> Ibid

<sup>56</sup> Ibid

<sup>57</sup> Ibid

<sup>58</sup> 36<sup>th</sup> Meeting of the Subsidiary Body on Implementation(SBI) under UNFCCC at Bonn, May 2012 coupled with its previous meeting at Tokyo, 26-28 March 2012

<sup>59</sup> UNFCCC.(2012). *SBI 36th Final Status Report*, from [http://unfccc.int/meetings/bonn\\_may\\_2012/session/6642.php](http://unfccc.int/meetings/bonn_may_2012/session/6642.php). Also see TWN. (2012). *Need for International Mechanism on Loss and Damage, says Developing Countries*, from [www.twinside.org.sg](http://www.twinside.org.sg)

<sup>60</sup> Ibid

<sup>61</sup> Norway, United States, EU, and Australia

<sup>62</sup> Ibid

<sup>63</sup> Bolivia on the behalf of G-77 and China, LDCs also commented on G-77 and China position and demanded to consider non-economic losses like values, cultural heritage, displacement, and territorial loss at Doha, COP 18

<sup>64</sup> Supra n 243

It is also emphasized by the developing countries to consider non-economic losses<sup>65</sup> while making assessment of loss and damage. The developing countries placed so much stress on non-economic losses assessment that demand to develop international mechanism for loss and damage went into foreground. It is quite amazing that developing countries<sup>66</sup> acknowledged the work at Durban<sup>67</sup> but in its 36<sup>th</sup> meeting of SBI demanded in a contact group to assess non-economic losses and made it significantly important in the future work and declared it a matter of prime concern for developing countries.<sup>68</sup> It is noted that SBI 36<sup>th</sup> meeting chair endorsed that numerical data is not sufficient enough to convey the comprehensive range of loss and damage for non-economic losses and categorically asserted that “available estimates on losses typically lack numbers on non-economic losses”<sup>69</sup> but developed countries even rejected this calculated definition of non-economic losses and estimates non-availability afterwards.<sup>70</sup>

#### **4.7 Developing Countries Perceived Sense of Renegotiation of Climate Change Talk—thinking paradigm shift in global climate response**

Durban Negotiations are considered an important land mark in climate change negotiations and attracted considerable scholarship, comments and criticism from all quarters. It is interesting to know that these controversial comments and criticism generated even in the preparatory meetings for COP 18. UNFCCC secretariat itself termed it a “turning point in the negotiations”<sup>71</sup> which was all set to “launch of new platform of negotiations”<sup>72</sup> to frame new

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<sup>65</sup> Non-Economic losses include territory, ecosystems, cultural heritage, values, livelihoods, local and indigenous Knowledge coupled with other socio-economic losses.

<sup>66</sup> G77, China and LDCs

<sup>67</sup> Decision 7/CP.17

<sup>68</sup> UNFCCC. (2012). *SBI 36th Final Status Report*, from [http://unfccc.int/meetings/bonn\\_may\\_2012/session/6642.php](http://unfccc.int/meetings/bonn_may_2012/session/6642.php)

<sup>69</sup> *Ibid*

<sup>70</sup> Developed Countries rejected this defining attempt of non-economic losses afterwards.

<sup>71</sup> UNFCCC. (2011). *Durban: Towards full implementation of the UN climate Change Convention*, from [http://unfccc.int/key\\_steps/durban\\_outcomes/items/6825.php](http://unfccc.int/key_steps/durban_outcomes/items/6825.php)

<sup>72</sup> *Ibid*

legal instrument or agreed outcome with legal force by 2015 form 2020 but ironically developing countries particularly India and African nations interpreted this development in extreme negative manner and termed it “The Durban Subversion”<sup>73</sup> which was going to “become the basis for future negotiations.”<sup>74</sup> It is noted that developing countries expressed their reservations of discomfort and taxing environment of negotiations particularly in the last three days and also raised their concern afterwards that the term “agreed outcome with legal force”<sup>75</sup> was the result of high tension, high drama and sleepless night,<sup>76</sup> extended by 30 hours after the scheduled end of conference.<sup>77</sup> It was blamed that EU, AOSIA, LDCs, Latin American countries, Brazil and South Africa crossed the red line while asking another protocol or legal instrument with legal force.<sup>78</sup> Indian press termed the DP text as “unconvincing narrative”<sup>79</sup> which is destined to weaken Indian or developing countries abilities to “intervene effectively in the international climate debate and ... [in] new global climate architecture.”<sup>80</sup>

Indian scholarship fiercely advanced the argument that “complete renegotiation”<sup>81</sup> of the convention rules, principles and return of Kyoto Protocol would be underway after Durban outcome<sup>82</sup> with the same tension-loaded environment for negotiations, arm-twisting tricks, and “back room manoeuvrings”<sup>83</sup> had to be set in again with the only difference that firewall erected between the developed countries and developing countries would be

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<sup>73</sup>EPW. (2011). The Durban Subversion. *Economic & Political Weekly*, XLVI.

<sup>74</sup>Langat, C. (2011). Durban outcome falls short of developing countries' expectations. *English.news.cn* quoting Alexander Alusa, Climate Change policy Advisor at the Office of the Kenyan Prime Minister

<sup>75</sup> Decision 1/CP.17, paragraph 2

<sup>76</sup>Rajamani, L. (2012). The DURBAN PLATFORM FOR ENHANCED ACTION AND THE FUTURE OF THE CLIMATE REGIME. *International & Comparative Law Quarterly*, 61(02), 501-518

<sup>77</sup>Harvey, J. V. a. F. (2011). Durban climate deal struck after tense all-night session. *The Guradian*.

<sup>78</sup> Supra n 260

<sup>79</sup>Raghunandan, D. (2011). Durban Platform: Kyoto Negotiations Redux. *Economic & Political Weekly*, XLVI.

<sup>80</sup> Ibid

<sup>81</sup> Ibid

<sup>82</sup> Ibid

<sup>83</sup> Ibid

no more available in the newly stitched single framework.<sup>84</sup> It is interesting to note that Durban platform propelled the negotiation process which would be “an agreed out come with legal force”<sup>85</sup> and “applicable to all parties”<sup>86</sup> but Indian scholarship started drumming out the argument that “the Durban Platform decision does not contain a reference to equity or common but differentiated responsibilities; the usual markers differentiation in climate regime.”<sup>87</sup> Therefore, a discussion triggered for universality of application and uniformity of application. (A detailed discussion in Chapter 5)

#### **4.8 Developing Countries Strongly Voiced Not to Rewrite UNFCCC Rules Particularly CBDR**

The resentment stirred by the Indian scholarship<sup>88</sup> and displeasure exhibited by African countries<sup>89</sup> after Durban negotiations turned into a dissatisfaction of almost all developing countries and groups displayed in the climate talk meetings for Cop 18 to be held at Qatar from 26 November 2012

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<sup>84</sup> Ibid, See Rajamani, L. (2012). The DURBAN PLATFORM FOR ENHANCED ACTION AND THE FUTURE OF THE CLIMATE REGIME. *International & Comparative Law Quarterly*, 61(02), 501-518

Rajamani where this single framework with no distinction between the developed and developing parties, if negotiated under the convention rules and provisions, then differentiation principle needs to be “recasting” because if EU position upholds that agreed outcome applicable to all parties would be tantamount to alter the very basics of UNFCCC structure and principle which had not been sought after. See Alexander Alusa in Langat, C. (2011). Durban outcome falls short of developing countries’ expectations. *English.news.cn*, who reiterated that “in the long run, all of us may have to take on commitments but as stated by the climate convention, according to principle of common but differentiated responsibilities and capabilities.”

<sup>85</sup> Decision 1/CP.17, paragraph 2

<sup>86</sup> Ibid

<sup>87</sup> Supra n 264,

<sup>88</sup> Supra n 263 & 268

<sup>89</sup> Supra n 258, See Langat quoting Alexander Alusa that COP 17 in Durban “failed to deliver on expectations” demanding long-term measures to cushion poor nations from adverse impacts of climate change while blaming developed nations to honour their financial commitments while the dire need of African farmers to ward off the adverse impacts of climate change. African leadership also cast doubts about Kyoto Protocol second commitment period and developed nations efforts to extend it due to “their development prospects and places financial commitment to less developed countries.”

to 13 December 2012. In the preparatory talks for COP 18 in Bangkok<sup>90</sup>, developing countries gave a united call that ADP outcome must be in accordance with UNFCCC rules and principles particularly focusing CBDR. This call triggered by the G77 and China supported by almost all groups of developing countries demanding that outcome must be agreed outcome and “not leading to rewriting, reinterpretation or replacement of the Convention and its annexes, which distinguishes the obligations of developed and developing countries.”<sup>91</sup> It demanded to carry out work as per convention principles and based upon decision 1/CP.17. It placed its emphasis on urgency to respond to climate change and vulnerability of developing countries by ensuring “a strong linkage between mitigation, adaptation, and means of implementation, in a balanced manner....in accordance with....CBDR.”<sup>92</sup>

This call was echoed and reiterated by Argentina on the behalf of Algeria, Bolivia, China, Cuba, Democratic Republic of Congo, Ecuador, Egypt, El Salvador, India, Iran, Kuwait, Malaysia, Mali, Nicaragua, Pakistan, Philippines, Saudi Arabia, Sri Lanka, Sudan, Thailand, and Venezuela to carry out even informal discussion in the ADP under the convention, its rules and provisions particularly the principle of CBDR and specifically pointed out the ADP mandate to develop a protocol, another legal instrument or an agreed outcome with legal force whatever may be the form and design but strictly “under the convention”<sup>93</sup> without any amendment, replacement or reinterpretation of the Convention. It could be attributed to the intelligent move by Indian diplomacy which was left aside in the last 30 hours of COP 17 but now its point of view is being advanced by almost all groups of developing countries and Indian scholars’ interpretation “applicable to all”<sup>94</sup> to

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<sup>90</sup> Plenary session of the informal session of the Ad-Hoc Working Group on the Durban Platform (ADP), IISD. (2012). SUMMARY OF THE BANGKOK CLIMATE TALKS, *Earth Negotiation Bulletin*.

<sup>91</sup> TWN. (2012). *Durban Platform outcome must not rewrite UNFCCC*, from [www.twn.my](http://www.twn.my)

<sup>92</sup> Ibid

<sup>93</sup> Supra n 274

<sup>94</sup> Decision 1/CP.17, paragraph 2

“universality of application is not uniformity of application”<sup>95</sup> got credence here.<sup>96</sup>

The developing countries not only displayed unity in advancing not to retract from the convention rules, principles and provisions particularly for CBDR but also did best to remind developed countries that the “first and overriding priorities”<sup>97</sup> for the developing countries would be to eradicate poverty with economic and social development. They went one step further to tighten up the ADP mandate by showing its interconnectedness with the work of AWG-LCA and reminding developed countries not to back track from their legally binding commitments under Kyoto Protocol by jumping into ADP ship.<sup>98</sup> Again, it could be concluded that Indian intelligentsia, scholarship and diplomacy touched the genuine heights when developing countries also gave the passing reference of Rio+20 Conference outcome document, *The Future WE Want* where Heads of States unanimously recalled

“the UNFCCC provides that 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.”<sup>99</sup>

It is noted that other groups and countries like Swaziland for the African Group, Gambia for LDCs, Nauru for AOSIS, Egypt for Arab Group, Bolivia for (ALBA), Nicaragua for (SICA), South Africa for BASIC called not to rewrite the convention rules, strict adherence to all its principles particularly for CBDR, considering the work under AWG-LCA & KP while negotiating new international climate regime. All these groups remained focused to highlight

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<sup>95</sup>Rajamani, L. (2012). The DURBAN PLATFORM FOR ENHANCED ACTION AND THE FUTURE OF THE CLIMATE REGIME. *International & Comparative Law Quarterly*, 61(02), 501-518 and also Raghunandan, D. (2011). Durban Platform: Kyoto Negotiations Redux. *Economic & Political Weekly*, XLVI.

<sup>96</sup> Supra n 274 & 275

<sup>97</sup> Ibid

<sup>98</sup> Ibid

<sup>99</sup> Rio+20 Document, ‘The Future We Want’, Paragraph 191

the importance for the principle of historical responsibility, and CBDR which got affirmed in Rio+20 official document.<sup>100</sup> It can be argued from this discussion that developing countries were not ready to accept Durban outcome; “applicable to all Parties” and started debating that universality of application is not uniformity of application. All these groups and alliances agreed to cut down mitigation to keep the temperature below two centigrade but considering their social, economic, and historical factors almost refused to accept any legally binding commitments in the proposed new climate regime.

#### **4.9 The Doha Climate Gateway---Developing Countries reasserted for the principle of equity and CBDR, inclusion of principle of loss and damage with curtailing mandate of the ICAO and IMO**

Developing countries expressed satisfaction over the Doha outcome, known as “The Doha Climate Gateway”<sup>101</sup> and appreciated the chair shrewdness in conducting the final round of negotiations while handling all the wrangling over the use of excess AAUS, inclusion of the agreed decision to explore the compensation mechanisms for the principle of loss and damage in the face of stiff opposition from United States.<sup>102</sup> COP President quoted the words of Lead Negotiator, the Philippines “*IF NOT US, THEN WHO*”<sup>103</sup> and remarked

“I am not saying what is in store is a perfect package. Perfection is just a concept. If great minds like Plato and Socrates were in the COP presidency, I assure that even they would not been able to deliver a perfect COP 18 package.”<sup>104</sup>

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<sup>100</sup> Ibid

<sup>101</sup> UNFCCC Secretariat, [http://unfccc.int/key\\_steps/doha\\_climate\\_gateway/items/7389.php](http://unfccc.int/key_steps/doha_climate_gateway/items/7389.php), Also, See, H.E. Mr. Abdullah Bin Hamad Al Attiyah. (2012). *Remarks, COP 18/CMP 8 President*, from <http://unfccc.int>

<sup>102</sup> IISD. (2012). *Earth Negotiations Bulletin COP 18 FINAL*. Paper presented at the Doha Climate Talks, Qatar.

<sup>103</sup> Naderev Sano, Lead Negotiator, the Philippines said that “if not us, then who? If not now, then when? If not here, then where?”

<sup>104</sup> Supra n 313

It is noteworthy that developing countries remained satisfied due to their reassertion of the principle of equity and CBDR and termed it “the single biggest gain from Doha.”<sup>105</sup> It is identified that developing countries were satisfied and advocated at home that the COP 18 recognized that the “action of parties will be based on equity and CBDR including the need for equitable access to sustainable development.”<sup>106</sup> They even went step ahead while acknowledging COP 18 decision (1.CP/18) “agreed outcome pursuant to Bali Action Plan”<sup>107</sup> as a significant and positive development that the work of the Durban Platform would be “based on the principles of the Convention.”<sup>108</sup> It is notable that developing countries interpreted “an agreed outcome pursuant to Bali Action Plan” as a negation of Durban platform text last minute inclusion “applicable to all parties”<sup>109</sup> which kept them upset and fairly agitated after Durban. Their satisfaction over this development is reflective in their latest Ministerial Meeting on Climate Change (16 Feb 2013, Chennai, India) where 14 BASIC countries and COP 18 president again welcomed Doha outcome that the principle of equity and CBDR would be the guiding principle in new proposed climate treaty by 2015.<sup>110</sup> They emphasized that developing countries should be supported by finance and technology transfer by considering their “equitable access to sustainable development”<sup>111</sup> which is a corollary to the principle of equity and CBDR.

In the same tune, BASIC countries reiterated that that work of ADP would be guided by “the principles of the convention”<sup>112</sup> while acknowledging the COP 17 agreed outcome “applicable to all parties” but gave it diametrically opposite definition that Durban Platform would strengthen “the multilateral

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<sup>105</sup> MOEF. (2012). *Outcomes from Doha Climate Change Conference*, from [moef.nic.in/assets/Post%20Doha%20Note%20on%20outcomes.pdf](http://moef.nic.in/assets/Post%20Doha%20Note%20on%20outcomes.pdf)

<sup>106</sup> Ibid

<sup>107</sup> FCCC/CP/2012/8/Add.1, *recalling* decisions 1/CP.13 (Bali Action Plan), 1/CP.15, 1/CP.16 and 2/CP.17,

<sup>108</sup> Ibid

<sup>109</sup> Supra n 302

<sup>110</sup> MOEF. (2013). *Joint Statement of the BASIC Ministerial Meeting on Climate Change*

<sup>111</sup> Ibid

<sup>112</sup> Ibid

rules-based climate regime”<sup>113</sup> with full and effective application of the convention even beyond 2020 and by no means “a process to negotiate a new regime, nor to renegotiate, rewrite or interpret the Convention and its principles and provisions.”<sup>114</sup> It is noted that they reaffirmed after this diametrically opposite definition of Durban text that all parties were agreed at Durban that Durban outcome and further negotiating process for the new protocol, or legally binding instrument would be “under the Convention, in accordance with all its principles and provisions, in particular the principles of equity and common but differentiated responsibilities and respective capabilities.”<sup>115</sup>

It can be argued here that Durban Platform clearly conveyed the sense that new protocol or legally binding instrument would be applicable to all parties diminishing the differentiating lines between the developed and developing countries for emission reduction targets but developing countries gave it first an interpretation that universality of application is not a uniformity of application and after COP 18 started interpreting the agreed outcome pursuant to Bali Action Plan as to carry out all future climate negotiations under the convention rules and provision without altering, affecting, changing, rewriting the convention rules particularly the principle of CBDR. It is just like a moving in the circle from COP 17 to COP 18 first with complete new direction and then its complete reversal to original position. Whereas, developed nations including the EU mainly focused on the new treaty to be in force from 2020 with equally applicable to all parties---no cushion to developing countries without considering the developing countries interpretation of “applicable to all parties” (Durban Platform COP 17) and “an agreed outcome pursuant to Bali Action Plan” (Doha Climate Gateway COP 18).<sup>116</sup> The developed nations put their focus on the 2015 International Climate Change Agreement: Shaping international climate policy beyond

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<sup>113</sup> Ibid

<sup>114</sup> Ibid

<sup>115</sup> Ibid

<sup>116</sup> Heinrich-Boll-Stiftung. (2012). *European Climate Leadership Durban and Beyond*, from [www.boell.eu](http://www.boell.eu)

2020<sup>117</sup> and strongly debated and ongoing debate in five areas all related to the new agreement by 2015.<sup>118</sup>

#### **4.10 UN Conference on Sustainable Development Rio+20-- Reaffirming the Principle of CBDR and – Providing Special treatment to Developing Countries in technology transfer and capacity building**

Developing countries drummed out their demand not to retract with the Conventions, its rules and provision particularly the principle of CBDR in COP 17, preparatory talks for COP 18, and almost developed the atmosphere successfully in COP 18. Though Rio+20 was not mandated to deal with climate change negotiations or its allied issues but its final document “the Future We Want” was almost interwoven with the climate change to be dealt with two its themes; the Green Economy and the Institutional Framework for Sustainable Development.

Its document touched climate change in three paragraphs (190-192) and developing countries were recognized to be dealt with “on the basis of equity and in accordance with their common but differentiates responsibilities and respective capabilities.”<sup>119</sup> It also reiterated the importance of mobilizing funding from “a variety of sources, public and private, bilateral and multilateral, including innovative sources...capacity building in developing countries.”<sup>120</sup>

It is notable that developing countries like India exploited this position of “the Future We Want” to the best in the interest of developing countries after Durban outcome demanding “an agreed outcome, legally binding instrument

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<sup>117</sup>EU. (2013). *Communication From the Commission of the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions.* Brussels.

<sup>118</sup> Ibid

<sup>119</sup> Supra n 99 & 322

<sup>120</sup> Ibid

applicable to all Parties”<sup>121</sup> to alter the position by demanding “not leading to rewriting, reinterpretation or replacement of the Convention and its annexes, which distinguishes the obligations of developed and developing countries.”<sup>122</sup> It can be concluded that Rio+20 outcome gave a timely impetus and boost to developing countries in pressing their demand to treat them as per the historic convention principle of CBDR.

#### **4.11 Chapter Concluding Remarks**

This comprehensive discussion on the issue of climate change included the historical evolution of the framework on climate change as developed through the Conferences of the Parties (COPs), in particular by the adoption of the Kyoto Protocol.<sup>123</sup> The Kyoto Protocol strengthened the commitments of the developed countries on to this, as it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions which amount to an average of five per cent against the 1990 levels over the five-year period 2008-2012. In addition to this, the Bali Action Plan, a part of the Bali Road Map also recognized the deep cuts in global emissions that would be required to achieve the Convention’s ultimate objective emphasized the urgency to address the climate change that had been indicated in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). Therefore, the parties decided to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action up till and beyond 2012. For the purpose of conducting this process, a subsidiary body under the Convention known as the Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA) was established which would complete its work by 2009 and present it in the fifteenth session of the COP. It is important to note that at the heart of the Bali Road Map, were two negotiating tracks which were to be pursued under the newly

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<sup>121</sup> Supra n 274, 275 & 319

<sup>122</sup>TWN. (2012). *Durban Platform outcome must not rewrite UNFCCC*, from [www.twn.my](http://www.twn.my)

<sup>123</sup>Supra note 24

launched AWG-LCA and the existing AWG-KP. The Bali Action Plan is also important for the distinction it maintained between developed countries and developing countries obligations by defining for developed countries, “commitments” to reduce climate change whereas for developed countries, mitigation “actions” supported by technology and enabled by financing and capacity-building.<sup>124</sup>

One of the most argued issues in the debate over global climate change is the difference between the interests and obligations of developed and developing countries.<sup>125</sup> The persistent resistance of developing countries to the idea of limiting their emissions has led to claims that developing countries are not doing their reasonable share of reducing emissions. It is estimated that GHG emissions from developing countries will surpass those from developed countries within the first half of this century. As a result, developed countries believe that it is high time for developing countries to make appropriate efforts towards climate change mitigation and that commitments similar to developed countries be assigned to the developing countries as well. However, it is important to note that accepting emission limits is not the only measure of determining whether a country is contributing to climate change mitigation because efforts that result in reducing or avoiding greenhouse gas emissions, contribute to climate mitigation irrespective of whether or not it was undertaken for the purpose of protecting the climate.<sup>126</sup>

In fact, many developing countries are undertaking efforts that have significantly reduced the growth of their own greenhouse gas emissions. As mentioned before, these endeavors have been driven not by climate concerns but by necessity for economic development, poverty reduction, local environmental protection, and energy security. Furthermore, while their energy use and emissions will continue rising in the foreseeable future, developing countries continue to offer substantial opportunities for emissions

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<sup>124</sup>Supra note 44

<sup>125</sup> Supra note 193

<sup>126</sup> Ibid

mitigation if social and economic barriers can be overcome. Significant barriers to emissions reductions exist which must be addressed.<sup>127</sup>

Lack of information – developing countries mostly lack rigorous, transparent studies of future energy and emissions trends, making more difficult. Information regarding mitigation efforts on any level will be undependable unless mitigation measures are made transparent and verifiable. At the international level, the dearth of reliable data raises questions about the viability of any approach including substantial information for establishing or monitoring progress towards emission objectives for developing countries.

Lack of capacity – in many developing countries, further mitigation is seriously hindered by a lack of institutional capacity in particular, the expertise and personnel required to analyze energy and emission futures, recognize mitigation opportunities, integrate climate efforts with other development priorities, implement economic reforms, and foster investment opportunities.

Market distortion – public control of energy resources, and public subsidies for certain types of energy use, often stand in the way of GHG mitigation. In most of the developing countries, public control of at least a portion of energy resources has prevented the emergence of private actors more likely to promote emissions-reducing efficiencies. State-owned institutions play major roles in supplying energy in many of these countries.

Lack of technology and investment – technology transfer occurs mainly through private-sector investment. But investment in developing countries is hampered by lack of transparency in business transactions and uncertainty in recovering loans and equity investments. Due to the uncertain prospects of return on investment, the perceived risk of investing is so high that would-be investors are unwilling to finance even a feasibility study, which developing country industries and governments cannot undertake on their own regularly.

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<sup>127</sup> Ibid

In view of these barriers, efforts to promote further emissions mitigation will require new policies to be designed by developing countries. Policy makers can employ a variety of strategies to support development, security, and environmental goals as a way of encouraging emissions mitigation. Furthermore, it is highly important for developed countries to assist the developing countries in overcoming these barriers by increasing their support to them.

The developed countries are correct in the sense that it is now time for developing countries to undertake more binding actions for mitigation of GHGs since the emissions of developing countries account for more than one-third of the world GHG emissions. However, in this regard consideration must be given to the principle of “common but differentiated responsibilities” since it was not only the foundation of the UNFCCC but has also been maintained in all subsequent negotiations on climate change. Also, in order for developing countries to fulfill any commitments that they may undertake, it is essential that support is provided to them from the developed world in any form that is required.

## **5. Discussion and Analysis for Effective Participation of Developing Countries in Climate Change Negotiations.**

### **5.1 Introduction**

Developing Countries not only remained passive in handling climate change negotiations and climate change agenda but also insisted on carrying out the same passive mode in recent years and also aim to maintain this position for the future proposed climate change treaty by 2015 on the pretext of the Principle of differential responsibilities, placing the blame and burden both on the shoulders of developed countries for historical emissions and also not only to tackle the emission reduction with innovative technologies but also providing financial assistance to developing countries for their economic development, uplift of societies by eradicating poverty and dealing with energy crisis.

This delicate and subtle linkage between the economic development agenda of developing countries on one hand and reducing carbon emissions efforts and fighting with its outfall on their societies by developed countries resulted in almost stalling the international climate change negotiations. Disgruntled and frustrated sounds have been voiced to dismantle the entire international climate change architecture due to “agreements of all to disagree only” in all climate talks meeting and proposing to start efforts outside UNFCCC, or regional efforts through alliances or handling climate change at local level through traditional knowledge and indigenous solutions but equally getting sound voices in favour of not only maintain the UNFCCC and the work of COPs and its bodies but also strengthen the global institutional mechanisms by working hard to sail with all players and stake holders and by accommodating the concerns of all and taking everyone on board by genuinely addressing the grievances of all parties in order to iron out the

differences and hammer out the international agreement which should be 'acceptable to all' at least if not 'applicable to all.'

This analysis aims to view the cushion of differential treatment since its inception and the genesis of its inclusion into climate change talks with its legal recognition in international law whether it is legally binding principle for the State Responsibility doctrine or only a moral and ethical obligation resulting only stalling the climate change agenda. It also critically views the dimensions to tighten up the CBDR framework or ending it altogether in the new proposed international climate treaty by 2015.

## **5.2. Developing Countries: the Genesis of Differential/Special Treatment in International Environmental law and Climate Change Negotiations; its Legal Recognition or only Ethical Obligation**

This section critically views the birth of differential treatment principle to developing countries in negotiating multilateral agreements at international level, its inception into climate change talks to support and provide the cushion to developing countries. It also attempts to assess the legal acceptance, recognition and validity of CBDR principle in international law and then views the insistence of developing countries to retain the principle of CBDR by all means and with varying degree of its original meaning. The critical discussion of these three areas will lead to discuss (section 3) the efforts of negotiating new international climate treaty by 2015 with or without CBDR and subsequently would pave the way (section 4) the effective enforcement of new treaty by specialized global agency.

### **5.2.1 Developing Countries: Genesis of Differential Treatment and its Travel to Climate Change Negotiations**

After Second World War, the era of decolonization emerged and the globe divided mainly into developed countries (mainly which governed) and the developing countries which got freedom due to awareness of human rights. This era of decolonization, triggered by freedom movements, soon followed into another debate of economic development. Generally, the ruling nations were interpreted as developed nations due to their economic prosperity and developing countries or Third World States focused on their resource deprivation for economic uplift or the lack of capacity to translate their natural resources for their economic development which triggered the debate for New International Economic Order (NIEO) aiming to remove the hurdles for economic uplift of developing countries. In this backdrop, United

Nations convened the Stockholm Conference 1972 upon the initiative of Sweden Prime Minister<sup>1</sup> who was very concerned over environmental degradation and wanted global response to develop environmental ethics.<sup>2</sup> This UN Conference on the Human Environment ended with the Stockholm Declaration 1972 which underscored the need of the time for a “common outlook and for common principles to inspire and guide the peoples of the world in the preservation and enhancement of the human environment.”<sup>3</sup> The following lines view this declaration how the NIEO debate had been expressed here which became the foundation stone of the differential principle.

### **5.2.1.1 The Stockholm Declaration 1972 and Inception of Differential Principle**

It is noteworthy that the Stockholm Declaration 1972 recognized the environmental degradation in its preamble and linked this destruction with “man-made”<sup>4</sup> activities which not only resulted in “dangerous levels of pollution”<sup>5</sup> but also depleted the “irreplaceable resources.”<sup>6</sup> It recognized the harmful effects of environmental pollution to the “physical, mental and social health of man”<sup>7</sup> and urged the global community to address this “major issue”<sup>8</sup> which affected the well being of peoples and economic development.<sup>9</sup> It is noted that right in the preamble this document linked the environmental degradation with human health and economic development; NIEO debate (the North-South dialogue) received due recognition in the preamble and in the same tune it acknowledged that environmental issues/problems affected developing countries, in its worst, and millions of developing world population

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<sup>1</sup> Olaf Palme, the Swedish Prime Minister

<sup>2</sup> Tolba, M. (Ed.) (1988) *Evolving Environmental Perceptions: from Stockholm to Nairobi*. London: Butterworth.

<sup>3</sup> UNEP. (1972). *Declaration of the United Nations Conference on the Human Environment*, from <http://www.unep.org/Documents.Multilingual/Default.asp?documentid=97&articleid=150>

<sup>4</sup> Stockholm Declaration, 1972, Preamble

<sup>5</sup> Ibid

<sup>6</sup> Ibid

<sup>7</sup> Ibid

<sup>8</sup> Ibid

<sup>9</sup> Ibid

living below the minimum levels of human living standards without “adequate food and clothing, shelter and education, health and sanitation.”<sup>10</sup>It proclaimed that

“the developing countries must direct their efforts to development, bearing in mind their priorities and the need to safeguard and improve the environment. ...the industrialized countries should make efforts to reduce the gap themselves and the developing countries.”<sup>11</sup>

The above mentioned lines clearly indicates that the Stockholm declaration 1972 accommodated the NIEO debate in its preamble and linked the developing countries development with the developed countries efforts and also acknowledged that the environmental problems in the industrialized (developed) countries are “related to industrialization and technological development.”<sup>12</sup> It is notable that the Declaration not only acknowledged the economic gap between the developed and developing world but also acknowledged the fact very silently that environmental problems in developing countries were due to industrialization and also termed developed countries as Industrialized countries. It can be interpreted here that environmental problems were linked with industrial activities transpired in industrial countries and this term of Industrial countries has significantly become important in these times (when International Climate Treaty is being negotiated upon the build up of Durban Platform) when most of developing countries are heavily industrialized but insisted to be interpreted or taken as developing countries of the 1972.

It is identified that the declaration gave effect this philosophy in its principles as well. It is acknowledged in its principle 24 that “cooperative spirit by all countries, big and small, on an equal footing” needed to protect and improve the environment through “multilateral or bilateral arrangements.....due account....of the sovereignty and interests of all States.”<sup>13</sup> It can be argued that this Principle 24 of the Stockholm Declaration 1972 very intelligently

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<sup>10</sup> Ibid

<sup>11</sup> Ibid

<sup>12</sup> Ibid

<sup>13</sup> Principle 24, The Stockholm Declaration 1972

defined the principle of cooperation by taking into account the State Sovereignty and Interests of all states.

Interestingly, this cooperative principle was preceded by the acknowledgements of special needs of the developing countries which could be met by the technological and financial assistance as per requirement of the time.<sup>14</sup> It was also identified in its Principle 10 that developing countries are fragile due to weak mechanism of commodities prices and “raw materials...essential to environmental management”<sup>15</sup> and asserted further that “economic factors as well as ecological processes must be taken into account.”<sup>16</sup> In the same tune, it underscored the need to adopt such environmental policies which could not “adversely affect the present or future development potential of developing countries.”<sup>17</sup> In addition to all this, it asserted in its Principle 12 that resources availability needed to be in tune to “preserve and improve the environment...circumstances and particular requirements of developing countries”<sup>18</sup> while focusing on the costs for “incorporating environmental safeguards.”<sup>19</sup> This cost was linked to the demand of developing countries request to “additional international, technical, and financial assistance.”<sup>20</sup>

It can be concluded here that the Stockholm Declaration 1972 gave birth to differential treatment to developing countries while acknowledging their fragile systems, ineffective infrastructure, formulation of environmental policies in such a manner not to affect the developing potential of developing countries and linking of implementation cost for the environmental policies to international financial and technical assistance. It is revealed upon close examination of the Principle 10, 11 and 12 that it laid the foundation stone of differential treatment to developing countries due to their inability to tackle

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<sup>14</sup> Principle 9, The Stockholm Declaration 1972

<sup>15</sup> Principle 10, The Stockholm Declaration 1972

<sup>16</sup> Ibid

<sup>17</sup> Principle 11, The Stockholm Declaration 1972

<sup>18</sup> Principle 12, The Stockholm Declaration, 1972

<sup>19</sup> Ibid

<sup>20</sup> Ibid

environmental issues and fragility of systems. It is not difficult to assess that all these concepts grew with the passage of time in each international effort (negotiating the multilateral treaties since 1972) and developing countries contributed on these three concepts; fragile nature of their societies due to colonization, environmental policies not to hamper economic development, and implementation cost to be borne by internationally through financial and technical assistance.

It is also noteworthy that developing countries participated in its fullest and advocated for the development needs of the country where as developed countries wanted to frame policies to avoid environmental degradation and to develop global response to tackle this issue.<sup>21</sup> This principled stand of both the groups created deadlock which was resolved when developing countries recognized that economic development could not always be linked with environmental protection and endorsed that “economic growth and economic affluence”<sup>22</sup> could not be blamed always for environmental degradation and hazards and acceded to the view that environmental issues could be due to conflict between “conservation and reckless exploitation” and not necessarily between “progress and ecological values.”<sup>23</sup>

It is notable that the concept “conservation and reckless exploitation” further grew as a “sustainable development” which refers to the economic development without compromising for the future generations and provided a shield to developing countries to advance the recognized stance of developing countries at the Stockholm 1972 to further mature in recent times. Though, the Declaration recognized the State Sovereignty and the Principle of Cooperation while dealing with environmental matters but it is worth remembering that it linked the environmental degradation with

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<sup>21</sup> Supra n 3, Developing countries participated but Indian delegation was strong enough due to presence of her Prime Minister, Indra Gandhi, who resisted to the ideas of developed countries to create deadlock and also acceded to put the blame to reckless exploitation instead of conservation while leaving aside the link between progress and ecological values to resolve the deadlock.

<sup>22</sup> Indian Prime Minister, Indra Gandhi Speech, quoted in Rangarajan, M. (2009). Striving for balance; nature, power, science and Indra Gandhi, 1917-1984. *Conservation & Society*, 7(4)

<sup>23</sup> Ibid

“industrialization and technological development”<sup>24</sup> used the term “Industrial Countries.”<sup>25</sup>

These concepts recognizing the ineffective infrastructures needs, technological and financial assistance, help in implementation of the environmental policies for developing countries further got expressions in almost all major multilateral conventions<sup>26</sup> negotiated till the advent of Rio Declaration of 1992 but the two most important internationally negotiated instruments are worth mentioning here (analysis in coming lines) which contributed in further defining the concept of differential treatment to developing countries

### **5.2.1.2 The Montreal Protocol 1987 and Special/Differential Treatment to Developing Countries**

It is considered the significant multilateral environmental treaties because it accommodated the concerns of developing countries since the Stockholm Declaration 1972 and introducing the sharing arrangement between the parties. It is noteworthy that the Montreal Protocol (1987) right in its preamble asserted the adoption of “precautionary measures”<sup>27</sup> upon the evidences of “scientific knowledge”<sup>28</sup> but considering “technical and economic considerations”<sup>29</sup> and focusing upon “developmental needs of developing countries.”<sup>30</sup> It is evident that developing countries received special attention due to their developmental needs, inadequate technical know how, fragile economic situations whereas scientific knowledge pointed out the grave

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<sup>24</sup> Supra n 12, Preamble to the Declaration

<sup>25</sup> Ibid

<sup>26</sup> UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972), The Convention on International Trade in Endangered Species (1973), the Convention on Migratory Species of Wild Animals (1979), the Vienna Convention on the Protection of the Ozone Layer (1985), the Montreal Protocol on Substances that Deplete the Ozone Layer (1987) and the Basel Convention on the Transboundary Movements of Hazardous Wastes (1989)

<sup>27</sup> UN. (1987). *The Montreal Protocol*, Preamble,

[http://ozone.unep.org/new\\_site/en/Treaties/treaties\\_decisions-hb.php?nav\\_id=22](http://ozone.unep.org/new_site/en/Treaties/treaties_decisions-hb.php?nav_id=22)

<sup>28</sup> Ibid

<sup>29</sup> Ibid

<sup>30</sup> Ibid

realities of Ozone-depletion which had been a global concern; the scientific phenomenon did not recognize the distinction between the developed and developing countries.

It carried on further that special provisions were required according to the “needs of developing countries,”<sup>31</sup> to arrange “additional financial resources,”<sup>32</sup> and to give them “access to relevant technologies.”<sup>33</sup> It is also notable that it asserted that financial resources need to be “predictable.”<sup>34</sup> It can be argued here that its Preamble set out to underscore the differential treatment to developing countries and also to arrange predictable financial resources with access to technology. Its preamble language is very assertive by using the word “Determining”<sup>35</sup> and “Acknowledging”<sup>36</sup> whereas the principle of precaution and cooperation received normal attention by using the words “Noting”<sup>37</sup> and “Considering”<sup>38</sup> in its Preamble but again directing to focus on the “particular needs of the developing countries.”<sup>39</sup>

It provided the special treatment to the developing countries in its Article 5<sup>40</sup> by giving them “delay of ten years in the compliance”<sup>41</sup> and also awarding them the relaxation of calculating periods<sup>42</sup> and the establishment of the

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<sup>31</sup> Ibid

<sup>32</sup> Ibid

<sup>33</sup> Ibid

<sup>34</sup> Ibid

<sup>35</sup> Ibid

<sup>36</sup> Ibid

<sup>37</sup> Ibid, Noting the precautionary measures for controlling emissions of certain chlorofluorocarbons that have already been taken at national and regional levels,

<sup>38</sup> Ibid, Considering the importance of promoting international co-operation in the research, development and transfer of alternative technologies relating to the control and reduction of emissions of substances that deplete the ozone layer, bearing in mind in particular the needs of developing countries,

<sup>39</sup> Ibid

<sup>40</sup> Article 5, Special Situation of the Developing Countries, The Montreal Protocol 1987, [http://ozone.unep.org/new\\_site/en/Treaties/treaties\\_decisions-hb.php?nav\\_id=22](http://ozone.unep.org/new_site/en/Treaties/treaties_decisions-hb.php?nav_id=22)

<sup>41</sup> Ibid

<sup>42</sup> Ibid, Article 5 (3) (a)

mechanism to provide “financial and technical cooperation”<sup>43</sup> for the parties mentioned in its Article 5 (1).<sup>44</sup>

It is evident that the Montreal Protocol 1987 recognized the special needs of the developing countries and inadequate financial resources and lack in technical capacity to adopt measures as enunciated by the Protocol to save Ozone-Layer depletion much greater than the Stockholm Declaration 1972 and employed assertive language to recognize the special needs of the developing countries, focusing on their developmental needs and giving them delayed compliance regime which contributed in depth to make differential treatment concept to developing countries more strong and solid.

### **5.2.1.3 The Basel Convention 1989 and Differential Treatment to Developing Countries**

The Basel Convention 1989 also contributed a lot in making the foot prints of differential treatment to developing countries stronger when it reaffirmed the recognized principles of the Stockholm Declaration 1972 in its Preamble<sup>45</sup> and acknowledged the “limited capabilities of the developing countries to manage hazardous wastes and other wastes”<sup>46</sup> with recognizing the need to promote transfer of technology and sound management of hazardous waste for developing countries.<sup>47</sup> It required parties to cooperate to “assist developing countries”<sup>48</sup> in order to enable or assist them to implement the Convention requirements and also required Parties to consider

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<sup>43</sup> Article 10 (1), Financial Mechanisms, The Montreal Protocol 1987, [http://ozone.unep.org/new\\_site/en/Treaties/treaties\\_decisions-hb.php?nav\\_id=22](http://ozone.unep.org/new_site/en/Treaties/treaties_decisions-hb.php?nav_id=22)

<sup>44</sup> Article 5(1) refers to Developing Countries

<sup>45</sup> Preamble of the Basel Convention 1989, UNEP. (1987). *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, from <http://www.basel.int/TheConvention/Overview/TextoftheConvention/tabid/1275/Default.aspx>

<sup>46</sup> Ibid

<sup>47</sup> Ibid

<sup>48</sup> Article 10, “International Cooperation”, Para (3) states that the Parties shall employ appropriate means to co-operate in order to assist developing countries in the implementation of subparagraphs a, b, c and d of paragraph 2 of Article 4. <http://www.basel.int/TheConvention/Overview/TextoftheConvention/tabid/1275/Default.aspx>,

“the needs of developing countries”<sup>49</sup> while applying the cooperation principle among parties. It was further decided to “assist developing countries that are facing specific challenges with regard to prohibiting the import of hazardous wastes.”<sup>50</sup>

It can be concluded here that the Basel Convention also adhered with the principles outlined in the Stockholm Declaration 1972 but also contributed on solid footings to make these principles stronger by reiterating again. It is noteworthy that in the same year (1989) United Nations General Assembly (UNGA) approved the resolution 44/228 which properly accommodated these concepts by recognizing the differential treatment to developing countries.

#### **5.2.1.4 UNGA Resolution (44/228) Accommodating the Basis for Differential Treatment to Developing Countries**

United Nations General Assembly passed a resolution (44/228) in 1989 to convene a UN conference on Environment and Development and decided to convene this conference for two weeks in Rio, Brazil. This resolution is significant in a sense that it properly and officially recognized the principle of differential treatment for developing countries and paved the way for its official incorporation in upcoming Rio Declaration 1992. Its close analysis in coming lines will reveal how it helped in maturing the special considerations of developing countries, based upon economic development, into proper and well defined concept of differential treatment according to their respective capabilities into the international climate change negotiations.

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<sup>49</sup> Ibid, Para (4) states that Taking into account the needs of developing countries, co-operation between Parties and the competent international organizations is encouraged to promote, inter alia, public awareness, the development of sound management of hazardous wastes and other wastes and the adoption of new low-waste technologies.

<http://www.basel.int/TheConvention/Overview/TextoftheConvention/tabid/1275/Default.aspx>.

<sup>50</sup> The Basel Convention 1989, Decision BC-10/3;Section:F.

<http://www.basel.int/Implementation/LegalMatters/CountryLedInitiative/OutcomeofCOP10/Assistingdevelopingcountries/tabid/2678/Default.aspx>,

It recognized in its Preamble the global issue of climate change and its effects of “drought and desertification”<sup>51</sup> including land degradation and ocean contamination calling the commitment and participation of all countries but immediately after this recognition, it pointed the cause of environmental degradation with grave concern and held responsible to Industrialized nations for their “unsustainable pattern of production and consumption.”<sup>52</sup> Immediately after this, it emphasized with stress that poverty and environmental degradation are closely related and considering the environmental protection could be an integral part of the development process for which developing countries could not be isolated.<sup>53</sup>

After recognizing the horrendous effects of climate change, holding responsible to Industrial nations for unsustainable consumption of resources, it affirmed in strict sense and words that responsibility to fix this global damage must “be borne by the countries causing such damage”<sup>54</sup> and this damage needs to be fixed according to damage caused and “respective capabilities and responsibilities.”<sup>55</sup> In the same tune, it underscored the need of cooperation between the developed and developing countries and again urged to take effective measures “in accordance with their respective capabilities.”<sup>56</sup> It also consciously recognized the “need of developing countries” according to due role of science and technology for environmental protection and also recognized the “new and additional financial resources to be channeled to developing countries.”<sup>57</sup>

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<sup>51</sup>UN Resolution (44/228) UN. (1989). *United Nations Conference on Environment and Development*, from <http://www.un.org/documents/ga/res/44/ares44-228.htm>

<sup>52</sup> Ibid

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> Ibid

<sup>56</sup> Ibid

<sup>57</sup> Ibid

It is noted that after such powerful use of language to favour developing countries in the preamble lines, it decided in main text that sustainable development for all countries<sup>58</sup> but affirming the need of economic growth in developing countries,<sup>59</sup> reaffirming the sovereignty principle with added emphasis on capacities and specific responsibilities,<sup>60</sup> holding responsible to developed countries for emitting pollutants, toxics, and hazardous waste,<sup>61</sup> and recognizing the dire needs of developing countries for their “debt-servicing problems”<sup>62</sup> to combat climate change by reaffirming the need of “strengthen international co-operation...between developed and developing countries,”<sup>63</sup> to identify new and additional financial resources for developing countries,<sup>64</sup> transfer of environmentally sound technologies to developing countries,<sup>65</sup> and favouring concessional, preferential terms and modalities for developing countries<sup>66</sup> coupled with developing the human resources for developing countries “for the protection and enhancement of the environment.”<sup>67</sup>

After the close analysis of this resolution considered the mother document of Rio declaration 1992, it is clearly evident that international negotiators allowed developing the themes of “Needs” of developing countries, “Additional Financial Resources” for developing countries, “Technology transfer” for developing countries into the principle of differential treatment. It is further strengthened by holding the “developed countries responsible” for global damage and proportional responsibility to fix the global damage but according to respective capabilities. In addition to this, the principle of cooperation was used and applied as umbrella principle to grow all above-

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<sup>58</sup> Para 3

<sup>59</sup> Ibid, Para 5

<sup>60</sup> Ibid, Para 7

<sup>61</sup> Ibid, Para 9

<sup>62</sup> Ibid, Para 10

<sup>63</sup> Ibid, Para 14

<sup>64</sup> Ibid, Para 15 (j)

<sup>65</sup> Ibid, Para 15(l)

<sup>66</sup> Ibid, Para 15(m)

<sup>67</sup> Ibid, Para 15 (n)

mentioned themes into the sound principle of differential treatment to developing countries.

#### **5.2.1.5 Rio Declaration 1992 Consolidating the Differential Treatment into UNFCCC 1992**

The Rio Declaration 1992, outcome document of the UN conference on Environment and Development, is considered an historic document in combating the climate change issue at global level and delineating the scattered and half baked concepts into mature, crystal clear and legally binding multilateral environmental convention, known as UNFCCC. It is identified that Rio 1992 riddled with efforts of developed and developing countries efforts to get their views accepted and recognized, though conflicting in nature but the Rio Declaration “is a delicate balance between the claims of the developing and developed countries”<sup>68</sup> which lies between the precautionary approach and the polluter pays principle but irrespective of these conflicts, enigmas and riddles among the international players for the acceptance and recognition of their ideas (fall outside the scope of this research thesis), it is identified that it played a crucial role in cementing the concepts of the differential treatment, outlined in the Stockholm Declaration 1972, into one and coherent principle of common but differentiates responsibilities.<sup>69</sup>

The Rio Declaration right in its Preamble reaffirmed the Stockholm Declaration 1972 with the objective of “establishing a new and equitable global partnership.....new levels of cooperation among States.”<sup>70</sup> It recognized the need to develop an international agreement to accommodate all the work since the Stockholm Declaration 1972 into a legally binding one for the “integrity of the global environmental and developmental system.”<sup>71</sup> It

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<sup>68</sup>Rajamani, L. (2012). The Changing Fortunes of Differential Treatment in the Evolution of International Environmental Law. *International Affairs*, 88(3), 605-623.

<sup>69</sup> Rio Declaration 1992, Principle 24

<sup>70</sup>UNEP.(1992). *Rio Declaration on Environment and Development*. Retrieved 30th May, 2013, from <http://www.unep.org/documents.multilingual/default.asp?documentid=78&articleid=1163>

<sup>71</sup> Ibid

recognized the right to development in its Principle 3 and recommended to meet developmental and environmental needs of present and future generations equitably.<sup>72</sup> It recognized the sustainable development is an integral part of environmental protection<sup>73</sup> and cooperation is essential among all States “to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.”<sup>74</sup>

It recognized the “special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable”<sup>75</sup> and sought global partnership among all States to cooperate but “in view of the different contributions to global environmental degradation, States have common but differentiated responsibilities.”<sup>76</sup> It is noted that its Principle 7 acknowledged the responsibility of the developed countries towards sustainable development due to “pressures their societies place on the global environment”<sup>77</sup> and their command over the technological and financial resources.<sup>78</sup>

It is evident from the above discussion and analysis that Rio Declaration 1992 provided the room to different concepts of differential treatment to grow with emphasis and paved the way to get the legal status of these concepts when incorporated into United Nations Framework Convention on Climate Change (UNFCCC) which outlined in its Article 3 five principles for negotiation to combat climate change challenge “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.”<sup>79</sup> It recognized first the principle of common but differentiated responsibilities and respective capabilities (CBDR) and afterwards focused on the “specific needs

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<sup>72</sup> Ibid

<sup>73</sup> Rio Declaration, Principle 4

<sup>74</sup> Rio Declaration, Principle 5

<sup>75</sup> Rio Declaration, Principle 6

<sup>76</sup> Rio Declaration, Principle 7

<sup>77</sup> Ibid

<sup>78</sup> Ibid

<sup>79</sup> UNFCCC, Article 3 (1), Principles, [http://unfccc.int/essential\\_background/convention/background/items/1355.php](http://unfccc.int/essential_background/convention/background/items/1355.php), retrieved 30<sup>th</sup> May 2013

and special circumstances of developing country Parties.....particularly vulnerable”<sup>80</sup> urging all the Parties to “take precautionary measures”<sup>81</sup> to promote sustainable development and all policies and measures must be in tune with the “specific conditions of each Party.”<sup>82</sup>

It is evident from the above analysis that UNFCCC accommodated the flowing thoughts of the Stockholm Declaration 1972 and the Rio Declaration 1992 into legally binding principles under the convention to provide a frame work with guiding directions for the Parties to move ahead in the arena of the climate change negotiations; clearly applying the principle of CBDR in the forefront.

#### **5.2.1.6 Kyoto Protocol 1997 making the differential treatment a legal obligation**

Kyoto Protocol 1997 to UNFCCC 1992 is considered a watershed legal arrangement between the groups of Parties defined under UNFCCC for emission reduction. It not only introduced quantitative commitments between the parties but also introduced the new dimension of “legally-binding constraints on greenhouse gas emissions and innovative mechanisms aimed at cutting the cost of curbing emissions.”<sup>83</sup> Kyoto Protocol set the targets for the period of 2008 to 2012 under Marrakesh Accords<sup>84</sup> and underwent into second commitment period from 2012-2020 as per decisions of COP 18, Doha Qatar where emission targets and commitment parties were changed (here appraisal of commitments and emission reduction target is not objective; already spell out in Chapter 4) but the differential treatment principle remained somehow intact.<sup>85</sup>

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<sup>80</sup>Article 3 (2), Principles, UNFCCC 1992

<sup>81</sup> Article 3 (3)

<sup>82</sup> Article 3 (4)

<sup>83</sup> UNFCCC, Kyoto Protocol, [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php)

<sup>84</sup> Ibid

<sup>85</sup> It is surprising that no discussion touched CBDR principle whereas Indian experts did not agree with Durban Platform throughout the preceding year of COP.

Developed countries particularly EU set their eyes on the new agreed outcome or legally binding protocol or instrument applicable to all from 2020 and developing countries launched full scale debate for not rewriting the convention, its rules and principles and desirous the new treaty or agreed outcome must be pursuant to in accordance with convention rules and principles.<sup>86</sup> The fate of this obvious deadlock (explained above in chapter 4) yet to be matured in the preparatory talks of new climate treaty by 2015 but the objective of this discussion here that Kyoto Protocol 1997 provided the legal platform to the differential treatment and introduced a legal era of this principle where this principal ruled over polluter pays principle and cooperation principle.<sup>87</sup>

#### **5.2.1.7 WSSD 2002 Consolidating/Cementing differential treatment in tune with Stockholm and Rio Declaration**

World Summit on Sustainable Development (2002) at Johannesburg, SA is considered a summit of Implementation Plan for sustainable development with a ten year review of Agenda 21 as enunciated under UNGA resolution 55/199.<sup>88</sup> Its mandate was to review the political agenda on sustainable development set at Rio 1992 and recommend the steps to translate the concepts to possible actions. WSSD outcome though covered a range of dimensions from poverty eradication, energy, health, sanitation, and the use of natural resources for the sake of sustainable development in its Implementation plan<sup>89</sup> but developing countries did their best to inculcate the principle of common but differentiate responsibilities into the action strategies of the Implementation plan of WSSD and remained successful<sup>90</sup> in getting this

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<sup>86</sup> Only focusing on CBDR

<sup>87</sup> Supra n 68

<sup>88</sup> UNGA. (2001). *Ten-year review of progress achieved in the implementation of the outcome of the United Nations Conference on Environment and Development*. Retrieved 31st May 2013, from [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/55/199&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/55/199&Lang=E)

<sup>89</sup> UN. (2002). *Johannesburg Summit 2002: Key Outcomes of the Summit*. Retrieved 31st May 2013, from [www.un.org/summit/html/documents/sunnit\\_docs/2309](http://www.un.org/summit/html/documents/sunnit_docs/2309)

<sup>90</sup> US opposed the stance of developing countries that CBDR only applicable to environmental concerns and not to sustainable development agenda but developing countries G77 and China advocated on the basis of historical responsibilities inter and intra-

principle in Para 120, Part X (Institutional framework for sustainable development) which stated that all measures for effective institutional framework for sustainable development should “ be responsive to the needs of all countries, taking into account the specific needs of developing countries including the means of implementation.”<sup>91</sup>

It can be argued here that differential treatment to developing countries made its way to sustainable development agenda at WSSD 2002. It is noted that this concept of differential treatment, originated at Stockholm 1972 due to unrest of decolonized countries and their economic disparities got stronger in its meanings and travelled with other principles of cooperation and objective of economic development to Rio 1992 with solid legal incorporation in UNFCCC leaving behind the principle of cooperation and grew towards maturity in almost all multilateral environmental agreements where needs of developing countries and additional financial resources and technology transfer remained at forefront under the banner of this differential principle and remained alive in WSSD 2002 to be linked with sustainable development. In this way, it can be argued here that this linking of differential treatment with economic development remained active and alive with the changing shade of development meaning; sustainable development.

After having detailed and historical evolution of differential treatment to developing countries (this philosophy based upon fragile infrastructures, vulnerable economic systems, inadequate access to innovative technology and economic development in industrial countries coupled with their historical contributions) in the climate change regime from Stockholm 1972 to WSSD 2002 and in recent years of climate talks (Durban COP 17 & Qatar Cop 18), it is evident that this principle of CBDR remains in the heart of climate change negotiations and reaffirmed as a convention principle in Article 3 of UNFCCC

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generational equity as well as global economic inequity. They realized the developed countries that the principle of CBDR as conceived in Stockholm 1972 and matured at Rio 1992 is fully applicable in its form and meaning to Plan of Implementation for WSSD 2002 due to historical responsibilities of industrialized countries.

<sup>91</sup>UN.(2002). *Plan of Implementation-World Summit on Sustainable Development*. Retrieved 31st May 2013, from [www.johannesburgsummit.org/html/documents/.../2309\\_planfinal.htm?](http://www.johannesburgsummit.org/html/documents/.../2309_planfinal.htm?)

but it is equally important to critically view its legal dimensions of acceptance as a principle of international law in the coming lines due to its potential to make its place in the new international climate treaty.

## **5.2.2 Principle of Differential Treatment (CBDR): its legal recognition in International Law Jurisdiction**

It is essential at this stage to assess the legal significance of CBDR principle. It is decided fact that international conventions (treaties), international custom, and the general principles of law recognized by the civilized nations coupled with jurist writings are listed as accepted sources of international law.<sup>92</sup> It is appropriate here to view the principle of CBDR against these criteria to establish its legal significance, acceptance and recognition as general principle of law.

### **5.2.2.1 International Conventions (Treaties) and Principal of Differential Treatment (CBDR)**

Treaties or international conventions<sup>93</sup> are regarded the most important material source and stands at the top of the hierarchical order. The statute of the International Court of the Justice (ICJ) provides in its article 38, Para 1 (a) about the general or particular conventions establishing international rules which are recognized by the contesting states.<sup>94</sup> Treaties occupy the cornerstone in the architecture of international law and are considered the bridge of cooperation in international relations.<sup>95</sup> It is the growing trend after the Second World War to enhance the importance of the treaty in international law-making; therefore customary rules of international law are

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<sup>92</sup>ICJ.(1945). *Statute of the Court of International Justice*. Retrieved 31st May 2013, from <http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0>

<sup>93</sup> "CONVENTION"—In International law, it means a treaty and this is the only established meaning in international law and international relations. It is very common to get this term confused with the British constitutional law or with conferences. This term is interchangeably used with the term "TREATIES" and the corresponding synonymous terms are agreement, pact, understanding, protocol, charter, statute, act, covenant, declaration, engagement, arrangement, accord, regulation, and provision.

<sup>94</sup> Supra n 98

<sup>95</sup>Wildhaber, L. (1984). "Treaties Multilateral." [Encyclopedia of Public International Law 07](#)

codified by the treaty to the great extent. In case of disagreement among or between the states or prevailing uncertainty, states settle their disputes through adhoc compromises which are also the form of treaties. These treaties deal with different subjects ranging from export promotions to direct foreign investment by providing the legal framework.<sup>96</sup> Treaties are divided in two groups for usage purpose only and it is not a rigid classification or distinction. One is known as the "law-making treaties" establishing the rule of universal application and the second one is the "treaty contracts" dealing between the two states or with the few states for a special matter.<sup>97</sup> It is notable that the only difference between these two kinds of treaties is due to the nature of the contents but the purpose is to establish the rules of international law either at the bilateral level or the multilateral level.<sup>98</sup> It is maintained that the contract treaty is more likely to be terminated at the out set of the war between the two parties than the law-making treaty. But it would be not fair and precise to justify the law-making treaty as the only source of international law; whereas both kinds of treaties are regarded as a source of international law due to simultaneous application of the law of treaties.<sup>99</sup>

It is evident from the discussion (section 5.2.1) that the CBDR principle is retained its place in range of multilateral environmental conventions but it is argued that it remains as a general concept in its vague form and properly well-coded in the UNFCCC 1992 and Kyoto Protocol 1997.<sup>100</sup> Leaving aside all other multilateral environmental agreements, it is very appropriate here to critically view CBDR in the context of UNFCCC due to direct relevance of the UNFCCC to this research thesis. It is also identified that CBDR is

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<sup>96</sup> Geist, M. A. (1995). "Toward a general agreement on the regulation of foreign direct investment" Law and Policy in International Business 26

<sup>97</sup>G.V.Hecke (1992) "Contracts between States and Foreign Private Law Persons" Encyclopedia of Public International Law 1

<sup>98</sup> It is established that the bilateral treaty may have the law-making effect for example, the historic Hay-Pauncefote Treaty of 1901 between the United States and the Great Britain for sailings in Panama Canal, free to all nations and vessels.

<sup>99</sup> UN (1980) "Vienna Convention on the Law of Treaties"

<sup>100</sup>Deleuil, T. (2012). The Common but Differentiated Responsibilities Principle: Changes in Continuity after the Durban Conference of the Parties. *Review of European Community & International Environmental Law*, 21(3).

incorporated in the preamble part of the convention and the protocol coupled with in operation parties and is also considered “binding principle between the parties”<sup>101</sup> but it is also argued that the Article 3 of the Convention states that “the Parties shall be guided” and it signifies that the CBDR is incorporated only as a guiding principle and not as a binding principle.<sup>102</sup> It makes the position of CBDR fairly uncomfortable to be recognized as principle of international law upon the basis of first arm of the Article 38 of the ICJ “Convention and Treaties”<sup>103</sup> though UNFCCC falls in the category of law-making treaty.<sup>104</sup>

It can be concluded here that the scholarship of the developed countries pointed out this strained and unsettled position of CBDR in UNFCCC as a guiding principle only instead of the binding one and no significant scholarship or jurist’s writings from the developing countries to counter this argument; therefore it has to be accepted that the principle of CBDR as a guiding principle between the parties only cannot qualify as general principal of international law.

#### **5.2.2.2 Customary Evidence of General Practice accepted as law and Principal of Differential Treatment (CBDR)**

It is accepted fact that international law rules are derived from the traditional customary rules practiced for many hundred years. These rules are evolutionary in nature and passed through an historical process to culminate at the stage to be recognized by all the modern-states.<sup>105</sup> It is considered the second most important material source of international law and has been endorsed by the ICJ in its statute, article 38 by saying that “international

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<sup>101</sup> D. Bodansky, J. B. a. E. H. (Ed.). (2008). *The Oxford Handbook of International Environmental law*. London: Oxford. Chapter by U. Beyerlin, “Policies, Principles and Rules”

<sup>102</sup> Supra n 100

<sup>103</sup> Supra n 92

<sup>104</sup> Supra n 97

<sup>105</sup> Macdonald, D. M. J. a. R., Ed. (1983). *Structure and Process of International Law: Essays in Legal Philosophy, Doctrine and Theory (Developments in International Law)*. MartinusNijhoff Publishers.

custom, as evidence of a general practice accepted as law.”<sup>106</sup> ICJ further elaborated the role of international custom in law-making in the case of *Nicaragua v USA (Merits)* [1986] by enunciating its two elements; objective one is concerned with the ‘general practice’ and the subjective one is related to ‘accepted as law’, also known as *opinio iuris*. It is to be noted that multilateral treaties definitely provide the evidence of the customary rule if it is declaratory in nature or intended to be codified or quoted as evidence of the customary rule.<sup>107</sup>

This brief analysis reveals that custom must meet the criteria of generally accepted practice, accepted as law and when the CBDR principle is assessed against this criterion, it is revealed that “abundant evidence of the use of CBDR in treaties and COP decisions”<sup>108</sup> is available and properly codified in UNFCCC documents and decisions but there is no evidence of CBDR general practice available to be accepted as law.<sup>109</sup>

It is identified that CBDR received interpretation from the developing countries in order to “support their arguments”<sup>110</sup> and also to apply “pressure to developed countries”<sup>111</sup> in such a legal language like “in accordance with convention principles” to be conveyed the impression of its legal recognition based upon general practice accepted as law but developed countries always refuted and countered the interpretation of developing countries by challenging the suggested interpretation of CBDR<sup>112</sup> and rather discouraged the practice and time spent upon the “attempting to articulate and explicitly reflect principles in the development of compliance system.”<sup>113</sup> This deep divide even to interpretation of CBDR and inherent strain of definition rather competing attempts of developing and developed countries to serve their

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<sup>106</sup> Supra n 92

<sup>107</sup> Ibid

<sup>108</sup> Supra n 100

<sup>109</sup> Rajamani, L. (2006). *Differential Treatment in International Environmental Law*. New York: Oxford University Press.

<sup>110</sup> Supra n 100

<sup>111</sup> Ibid

<sup>112</sup> China Position

<sup>113</sup> Australian Position

objectives also negated the ICJ observation in the case of *the Asylum* that “a customary rule must be based on a constant and uniform usage.”<sup>114</sup>

It is concluded here from the above analysis that CBDR principle does not qualify to get legal recognition on the basis of second arm of the Article 38 of the ICJ statute.

### 5.2.2.3 Judicial Decisions (ICJ& International Tribunals) and Principal of Differential Treatment (CBDR)

Judicial decisions are fourth material source of international law and has been endorsed in the article 38 (1) (d) of the ICJ statute which says to apply “judicial decisions as subsidiary means for the determinations of rules of law”<sup>115</sup> under the provisions of the article 59 which states that “the decision of the Court has no binding force except between the parties and in respect of that particular case.”<sup>116</sup> It is noteworthy that there is no formal *stare decisis* doctrine like common law systems and Courts in international law do not follow the previous decisions except to take account of them.<sup>117</sup> Judicial decisions and arbitral decisions can provide the evidence of customary law<sup>118</sup> but it would be proper to mention that the judges can also create new law and the ICJ is no exception in this regard.<sup>119</sup>

Many ICJ decisions brought innovations into international law and were accepted in the cases of *the Reparation for Injuries*<sup>120</sup>, *the Genocide case*,<sup>121</sup>

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<sup>114</sup> ICJ, List of Cases, *the Asylum Case (Colombia/Peru)* The Court said that “the facts...disclose so much uncertainty and contradiction, so much fluctuation and discrepancy in the exercise of diplomatic asylum and in the.....not possible to discern any constant and uniform usage , accepted as law.”

<sup>115</sup> Supra n 98

<sup>116</sup> Ibid, article 59, ICJ statute, Chapter III, Procedure, “The decision of the Court has no binding force except between the parties and in respect of that particular case.”

<sup>117</sup> [http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER\\_III](http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0#CHAPTER_III)

<sup>117</sup> Shahabudden, M. (1996). *Precedent and the World Court*. Cambridge, Cambridge University Press.

<sup>118</sup> Ibid

<sup>119</sup> Ibid

<sup>120</sup> ICJ decided case

<sup>121</sup> Ibid

*and the Fisheries Case*.<sup>122</sup> It is identified that no judicial decision to date is arrived from ICJ<sup>123</sup> on the principle of CBDR whereas two cases from ITLOS and WTO are worth mentioning here which touched the principle of CBDR in developing countries context.

International Tribunal for Law of the Sea (ITLOS) examined the preferential treatment to developing countries under Article 140 and 148 of the UNCLOS 1982 which enunciated to consider “the interests and needs of developing countries”<sup>124</sup> for “the effective participation of developing states”<sup>125</sup> respectively. It also examined the Article 143 of the convention for the “transfer of technology to developing States”<sup>126</sup> coupled with Article 144 of the convention which prescribed providing “training opportunities for personnel from developing States”<sup>127</sup> but did not entertain these criteria (needs of developing countries, effective participation, lack in technological advancement and capacity building issues) to be considered for the formulation and building up the concept of preferential treatment to developing states<sup>128</sup> and recommended “equality of treatment between developing and developed sponsoring states”<sup>129</sup> in order to observe “the highest standards of protection of the marine environment.”<sup>130</sup>

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<sup>122</sup> Ibid

<sup>123</sup> There is another dimension of judicial decisions which require attention; proliferation of the courts and tribunals at the international and regional levels like Human Rights Courts, International Criminal Court, Tribunal for the Law of the Sea. It is feared that such a proliferation of the courts at the horizon of the international law can create a conflicting decisions in the absence of any supreme authority to eliminate or to harmonize such conflicts.

<sup>124</sup> ITLOS. (2011). SEABED DISPUTES CHAMBER OF THE INTERNATIONAL TRIBUNAL FOR THE LAW OF THE SEA: RESPONSIBILITIES AND OBLIGATIONS OF STATES SPONSORING PERSONS AND ENTITIES WITH RESPECT TO ACTIVITIES IN THE AREA, ADVISORY OPINION. Retrieved 08th June 2013, from <http://www.itlos.org/index.php?id=35>, Para 153

<sup>125</sup> Ibid, Para 154

<sup>126</sup> Ibid, Para 157

<sup>127</sup> Ibid,

<sup>128</sup> Ibid, Para 158

<sup>129</sup> Ibid, Para 159

<sup>130</sup> Ibid

It is worth mentioning here that ITLOS decision 17 also examined the precautionary principle embedded in the convention UNCLOS 1982<sup>131</sup> in the light of the Principle 15 of Rio Declaration and held that precautionary principle approach needed to be applied “according to...capabilities”<sup>132</sup> of the States. Though, it endorsed the different capabilities of the states as per Principle 15 of Rio Declaration but refused to apply this Rio Declaration precautionary principle approach based upon different capabilities of the states for the observation of “best environmental practices”<sup>133</sup> and provided a rationale for this observation that “reference to [capabilities] is only a broad and imprecise reference to the differences in developed and developing states”<sup>134</sup> which could be applied according to specific situation coupled with “scientific knowledge and technical capacity”<sup>135</sup> of the state “in the relevant scientific and technical fields.”<sup>136</sup>

It can be argued here that ITLOS considered the basis of differential (preferential) treatment and obligations for the developing countries in the convention 1982 but encouraged equality of states for best environmental practices and recognized the precautionary principle approach on the basis of state capabilities to be applied in a situation-specific, with available scientific and technical capability. In this way, it provided at least a solid direction for the interpretation of CBDR according to state scientific capability in specific situation for the observation of best environmental practices.

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<sup>131</sup> Ibid, Para 161

<sup>132</sup> Ibid.

<sup>133</sup> Ibid

<sup>134</sup> Ibid, Para 162

<sup>135</sup> Ibid

<sup>136</sup> Ibid

#### 5.2.2.4 General Principle of International Law and the Principle of Differential Treatment (CBDR)

General Principles of law are regarded the third source of international law as outlined in the article 38 (1) (c).<sup>137</sup> It is observed that “general principles of law recognized by the civilized nations.”<sup>138</sup> These general principles of international law, defined by Lord Phillimore, were those accepted by all nations in the municipal sphere,<sup>139</sup> such as certain principles of procedures, good faith, and the principles of res judicata.<sup>140</sup> It is argued that CBDR is the international environmental principle which yet to be developed fully;<sup>141</sup> its opponent advocated that it is a frame work principle with its deep roots in philosophy<sup>142</sup> but same time it is identified that it could not even “rise to the level of soft law”<sup>143</sup> to be accepted as the general principle of international law as per Article 38 (1) (c) of ICJ statute. It is identified that this principle is in gaining currency in the domestic jurisdiction but there is “no corroborating evidence that CBDR is common to most domestic systems, especially state practice is still evolving.”<sup>144</sup>

It is accepted that the principle of CBDR cannot be accepted as general principal of international law due to want of evidence needed for common usage of State Practices in their domestic systems but this fact cannot be ruled out that all states practices in international climate change negotiations endorsed this principle<sup>145</sup> which could be attributed a sufficient criteria to be accepted for the general principle of international law under Article 38 (1) (c).<sup>146</sup> It is noted that the Rio Declaration 1992 and UNFCCC 1992 can be

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<sup>137</sup> Supra n 98

<sup>138</sup> Ibid

<sup>139</sup> ICJ considered the general rule under municipal legal systems in the *Case Concerning the Barcelona Traction, Light and Power Co Ltd (Second Phase)* [1970]

<sup>140</sup> Advisory Committee of Jurists, drafting the statute provisions of PCIJ.

<sup>141</sup> Weiss, E. B. (2010). *The Rise and Fall of International Law. Fordham Law Review.*

<sup>142</sup> Patricia Birnie, A. B., Catherine Redgwell. (2009). *International Law and the Environment* [(3rd ed.). Oxford: OUP.

<sup>143</sup> Biniaz, S. (2002). Common but Differentiated Responsibility. *ASIL*, 96

<sup>144</sup> Supra n 100

<sup>145</sup> Alan Boyle, C. C. (2007). *The Making of International Law.* Oxford: OUP.

<sup>146</sup> Supra n 100

taken as an endorsement of state practices to apply the principle of CBDR in their negotiations and finally incorporated in the Kyoto Protocol 1997 with legally binding principle but these endorsements and incorporation could not satisfy its opponents who raised the point that CBDR appeared in preamble only as a guiding principle for the negotiating states and could be treated as frame work principle only<sup>147</sup>-----not the binding rule “being the clause of convention.”<sup>148</sup> Its opponents apply the logic that the principle of state consent<sup>149</sup> and principle of state sovereignty<sup>150</sup> could be taken as principle of general international law due to their confirmation in case law but the principle of CBDR has not been confirmed in any case just like the confirmation of the principle of sustainable development as general principal of international law in the Iron Rhine Case in 2005.<sup>151</sup>

### **5.2.3 Concluding Remarks---CBDR Principle---Legal Bases or Ethical Bases**

It is evident from above discussion that the CBDR principle in its evolution journey since 1992 could not get the enough maturity to attract the Article 38 of the ICJ statute to be recognized as principle of international law but its application in COP decisions, state emphasis on the phrases like “taking into account,” “recognizing,” and “guided by” and the state practices of developing international environmental law or climate change law provided enough credence to recognize it at least a significant principle if not legal one. If Kyoto Protocol 1997 is taken into consideration due to its legal sanctity, it is very difficult for any international law jurist not to recognize the legal effect of CBDR principle in the development of climate change law. If its power of creating legal effect (creating different legal obligations between developed and developing countries in emission reduction) is taken into account coupled with its dimension of “guided by,” it has to be conceded that it would be

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<sup>147</sup> Developed Countries Opinion

<sup>148</sup> Developing Countries Opinion

<sup>149</sup> PCIJ, Wimbledon Case, 17 August 1923, provide details

<sup>150</sup> PCIJ, Case of Free Zones of Upper Savoy, 7 June 1932

<sup>151</sup> Supra n 100

treated as legal principle of international law if ICJ opinion is sought in any relevant matter or directly on it.

It not only created different legal obligations for developing states but also provided a climate change negotiation framework for the states to be followed in the strict sense of law. Though, it created legal obligations on the basis of historical, philosophical and ethical issues forming the state systems after Second World War II according to developed countries views but its continuity not only in climate change negotiations but also in the negotiations of international trade has made it a corner stone of recent debate among climate change experts of developed and developing countries particularly after Durban talks 2011 to be considered significantly important for the negotiation of new international climate treaty by 2015 to be applied by 2020 where developed countries looking forward to eliminate this distinction due to development speed of many developing countries (India, China, Brazil, and even small developing countries) which provides the basis to set aside philosophical and historical reasons and create uniform legal basis but developing countries scholars, jurists, and experts want to focus the continuity of CBDR in new regime with different standards for developing states to be applied instead of placing all developing countries under one mitigation tent.

In this scenario, it seems that CBDR principle would be accommodated in new climate treaty of 2015 due to its strong negotiating character but its basis would be altered or modified according to new realities and needs of times.

### **5.3. Developing Countries and Developed Countries at Crossroad for Proposed International Climate Treaty 2015 in relation to CBDR Principle**

#### **5.3.1 CBDR Principle at Durban Platform: Indirect, Implicit references Creating Confused Scenario**

It is evident from discussion in chapter 4 (Durban COP) and in Chapter 5 (above discussion) that developing countries particularly India and its allies are not happy with Durban outcome. It is crystal clear from COP 17 Decision 1/CP.17 that approach towards the CBDR principle started melting away from its rigid position since 1992.<sup>152</sup> It referred to Article 3 of the UNFCCC 1992 which delineated the CBDR principle and urged developed countries to lead to combat to effects of climate change while focusing on the scientific evidence and underdeveloped capacity of developing countries in dealing with this phenomenon but it is noteworthy that the COP 17 decision also referred to “equity, national circumstances and specific needs of developing countries.”<sup>153</sup> Though, it is not very explicit reference in the COP 17 decision and it was urged that two negotiating tracks AWG-LCA and AWG-KP would be remained optional till COP 18 but it is yet to remember that COP 17 “Durban Platform” clearly forwarded with full thrust one point agenda to “develop a protocol, another legal instrument or an agreed outcome with legal force under the Convention applicable to all Parties”<sup>154</sup>

This indirect referencing to CBDR principle as laid out in Article 3 of the Convention and implicit referencing to specific needs of developing countries and national circumstances are two strands diametrically opposed to each other but were bound to be discussed within the primary framework of the convention, asserted by developing countries and applicable to all with legal force, drummed out be developed countries. Immediately after Durban

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<sup>152</sup> COP Durban Decision 1/CP. 17, FCCC/CP/2011/9/Add.1

<sup>153</sup> Ibid & Supra n 100

<sup>154</sup> Durban Platform

Platform, scholars from developed and developing countries started interpreting the decision language, words and the convention parameters according to meanings suitable to their respective camps. It was also echoed that last minute decision in extended time frame did not reflect the accurate temperature of the developing countries parties; winning of least developing countries and Island nations along with Brazil and South Africa by European Union were looked and attributed as a major success for “new legally binding international climate treaty.”<sup>155</sup>

This created a serious confusing scenario for both camps where developing countries wanted to have pivotal focus on the CBDR principle where as developed countries remained opponent to the legally binding nature of the CBDR principle and argued for the “uniformity in the parties’ obligations.”<sup>156</sup> This confusing scenario remained dominant till the advent of COP 18 at Doha where Parties met in confusing environment (developed countries refused to be part of legally binding Kyoto Protocol after 2012, USA, Japan, Canada, Russia, New Zealand) but surprisingly no concrete round of negotiations could be started to eliminate the controversy, generated by Durban Platform and Parties focused remained on the continuation of Kyoto Protocol, financial commitments of developed countries and possibility of setting up of mechanism for loss and damage popularly known as “Doha Climate Gateway”<sup>157</sup> but no effective dialogue was even thought to be triggered to eliminate the controversial Durban Decision. It is noteworthy that by the time contracting parties headed towards COP 18 at Doha, numerous scholars from both sides had contributed their valuable time and energy to have the CBDR principle in the future legally binding treaty as a legal principle or to modify its meanings and shades according to variables but surprisingly enough no voice echoed during and after COP 18 and yet to date (by the writing of this thesis)

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<sup>155</sup> Supra n 100

<sup>156</sup> Rajamani, L. (2012). The DURBAN PLATFORM FOR ENHANCED ACTION AND THE FUTURE OF THE CLIMATE REGIME. *International & Comparative Law Quarterly*, 61(02), 501-518.

<sup>157</sup> UNFCCC, The Doha Climate Gateway, [http://unfccc.int/key\\_steps/doha\\_climate\\_gateway/items/7389.php](http://unfccc.int/key_steps/doha_climate_gateway/items/7389.php)

when COP 19 is hardly 6 months away, no demand is coming from anywhere to deal this confusion but efforts are in full swing to get their respective views translated in to legally binding treaty of 2015. These views are critically but briefly described in the following sections.

### **5.3.2 Developing Countries Proposals for CBDR in New Climate Change Treaty**

It is quite interesting to note that instead to have negotiation track to clarify the confusing environment of Durban Decision, developing countries realizing that new climate treaty would be legally binding under the COP 17 mandate “developing legal instrument or protocol applicable to all parties”<sup>158</sup> started scholarly efforts to revisit the CBDR principle drumming out its symmetrical application instead of universal application.<sup>159</sup> These scholarly efforts were brimmed with different interpretation of the CBDR principle, setting aside its historical nature, resting on inadequate capacity of developing countries to combat climate change, achieving sustainable development goals by eradicating poverty and taking the interpretation into the arena of international politics (disengagement of USA from Kyoto Protocol) with trying hard to evolving new meaning and dimensions of law of treaty in international law to add new meaning to Kyoto Protocol.<sup>160</sup>

It is identified that developing countries started digesting that the meaning of the CBDR principle has started changing and not favouring developing countries but refusing to accept the textual meaning of “applicable to all” and embarked on the expedition to find out, tailor out, stitch out quite different and surprising new meaning to “applicable to all” that universal application does not mean the end of differentiation among developing countries.<sup>161</sup> On the

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<sup>158</sup> Durban Decision Cop 17

<sup>159</sup> Rajmani 2012.

<sup>160</sup> Ibid

<sup>161</sup> Ibid

one hand, it was accepted that “erosion of differentiation”<sup>162</sup> could be underway but at the same time finding its new variants under one pretext or the other instead to develop approaches, mechanisms and formulas to adapt to new realities of climate change and to get ready to mature enough to take developing countries into new climate treaty as a party to be treated equally as per Durban Decision “applicable to all.”<sup>163</sup>

Developing countries forwarded different meanings, variants, shades of the CBDR principle, acceptable to all but suitable to differentiation phenomenon of developing countries by highlighting the current realities of developing countries,<sup>164</sup> UNFCCC mechanisms,<sup>165</sup> applying CBDR in mitigation and adaptation,<sup>166</sup> addressing responsibility and capacity<sup>167</sup> and balancing symmetry and differentiation.<sup>168</sup> It is accepted that CBDR is central to the Convention since 1992 but after Durban Platform, its centrality has started waning but inflexible insistence to have CBDR in the central position despite “the contested issue of differentiation.”<sup>169</sup>

Apart from the frantic efforts to find out new shades and variants, few scholars from developing countries also adopted a sage approach to the CBDR principle by retaining it in the future climate treaty based upon per capita emissions.<sup>170</sup> It is a mathematical and statistical approach where per capita emissions are central and pivotal to each country and being urged to treat developing countries on the basis of per capita emissions.<sup>171</sup> Apparently, it sounds applicable and applauded approach when emissions are weighed out in carbon dioxide units but applied other variable like population and GDP

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<sup>162</sup> Ibid

<sup>163</sup> Durban Decision.

<sup>164</sup> Rajamani, H. W. L. (2013). CBDR&RC in a regime applicable to all. *Climate Policy*.

<sup>165</sup> Ibid

<sup>166</sup> Ibid

<sup>167</sup> Ibid

<sup>168</sup> Ibid

<sup>169</sup> Ibid

<sup>170</sup> Baruah, J. P. L. (2012). A new Framework for the UNFCCC: Common but Differentiated Responsibilities among Non-Annex Countries. *Economic & Political Weekly*, XLVII(45).

<sup>171</sup> Ibid

per capita spending<sup>172</sup> again put developing countries in the same position where they are standing. If applied to BASIC countries whose emissions are more than developed economies but calculated against the population and per capita spending where developed countries surpassed them, it is the same old wine in new bottle leaving little room to deal with the issue at hand which is to bring all countries under the tent without any differentiation.

It is quite evident from the above analysis, discussion and critique of scholarly work of developing countries that there is no flexibility in developing parties' camp to set aside the CBDR principle and to present themselves to be treated as equal in climate change negotiations' for the new international climate treaty which could eventually lead to the point where these negotiations fall apart without any concrete result to be again on the position of 1992. In this case, global environmental efforts to handle the effects of climate change could be hit in worse terms and shattering all global efforts.

### **5.3.3 Developed Countries Proposal for CBDR in New Climate Change Treaty**

It is quite clear that developed countries formulated their responses to the CBDR principle according to Durban Decision which is no differentiation in the new international climate treaty and applicability to all. Developed countries scholars started the concept of equality of all states as stated in the United Nations Charter.<sup>173</sup> All their focus is on the basis of classification causing the developed and developing countries and highlighting the case of international trade where the World Trade Organization (WTO) incorporated equality to all states after decades of negotiations from 1945-1995.<sup>174</sup>

Interestingly, they traced the differential treatment to developing countries in WTO arrangement which had to be eliminated by 2005 and also highlighted the environmental conventions prior to 1972 Stockholm Declaration where no

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<sup>172</sup> Ibid

<sup>173</sup> UN Charter, Article 2, 26 June 1945 and entered into force on 24 October 1945.

<sup>174</sup> A long, complicated round of talks to remove distortions from international trade.

reference was made to developing countries on the basis of differentiations.<sup>175</sup> To cite the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is the best quoted illustration but after that in the environmental negotiations, CBDR principle crept in and continued to dominate the scene since 1992, got legal acceptance in Kyoto Protocol 1997 in amazingly silent posture of developed countries. After Durban Decision (2012), developed countries took the serious view of their prolonged and inexplicable silence and started the arguments to eliminate the differential treatment to developing countries in environmental arena by successfully quoting the parallelism between international trade and environmental evolutionary talks and systems.<sup>176</sup>

It is notable that the European Commission also forwarded consultative communication for the new international climate treaty of 2015 by focusing on reducing global emissions by all countries while reducing the poverty and having necessary ambition.<sup>177</sup> It urged all players of major economies to pursue mitigation efforts in all sectors while focusing on climate change with mutual “processes and initiatives.”<sup>178</sup> It asked all stakeholders to design the 2015 agreement by considering the scientific evidences, focusing on Durban negotiations and taking new targets of “ambitious mitigation commitments.”<sup>179</sup> Though, it urged to consider new adaptive techniques, designing financing mechanisms for technology transfer with transparency and accountability components in the negotiation of the 2015 climate treaty.<sup>180</sup> In the end, it also urged to look at the options how the United Nations can effectively be utilized

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<sup>175</sup>Pauwelyn, J. (2013). The End of Differential Treatment for Developing Countries? Lessons from the Trade and Climate Change Regimes. *Review of European Community & International Environmental Law*, 22(1), 29-41.

<sup>176</sup> Ibid

<sup>177</sup>EU. (2013). *Communication From the Commission of the European Parliament, The Council, The European Economic and Social Committee and the Committee of the Regions*. Brussels.

<sup>178</sup> Ibid

<sup>179</sup> Ibid

<sup>180</sup> Ibid

to have improved, effective climate change negotiations inclusive of all countries in 2015 Agreement and in its implementation.<sup>181</sup>

#### **5.4 Deadlock Continues between Developing Countries and the Developed Countries.**

It is evident from the above discussions that the developed countries particularly the European Nations have focused on reducing emissions by all countries with ambitious mitigation commitments and taking all parties on board on equality basis. It is very hard even to imagine that there is any room available for developing countries to avail the cushion of differentiation whereas on the other hand developing countries have adopted inflexible posture for flying with the CBDR principle in the proposed international climate treaty. This serious and seemingly unresolved deadlock triggered a question mark on the future scenario of international climate negotiations which are unfortunately originated from the platform of international politics and wrangling instead to have focused on the scientific evidences forecasting serious effects of climate change if not handled within stipulated period of time. This conflict has created serious barriers towards legally binding treaty by 2015.

This rift is continued even after COP 18 at Doha and still hovering on the climate change negotiation horizon as indicated in the latest UNFCCC Bonn Climate Talks (July 2013) for the Adhoc Working Group on the Durban Platform for Enhanced Action (ADP2-2) where talks remained focused on structuring the workshops for crafting the 2015 Agreement by enhancing “actions in the areas of mitigation, adaptation, finance, technology and capacity-building, as well as transparency of action and support.”<sup>182</sup> These talks also focused on the existing arrangements for “transparency and accountability for delivery; managing ambition in accordance with science and

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<sup>181</sup> Ibid

<sup>182</sup> IISD, UNFCCC Bonn Climate Talks (ADP2-2): <http://climate-1.iisd.org/news/unfccc-publishes-summaries-from-adps-bonn-2013-sessions/>

equity; enablement of, and support for, enhanced actions; and linkages.”<sup>183</sup> Interestingly, these talks also focused on “strengthening existing institutions, arrangements and support.”<sup>184</sup>

It is interesting to note that the conflict over the inclusion of the differentiation principle generated from the Durban Platform is not discussed or being tried to resolve while focusing on strengthening the existing arrangements of institutions. This observation becomes more interesting when read with the European Commission consultative communication demand for greater and effective role of the United Nations.<sup>185</sup> This observation gets its strength from the UN Secretary General Comments urging to develop strong institutional linkages by removing the disintegrated and fragmented international environmental governance.<sup>186</sup>

It is highlighted in the same tune that patchy institutional arrangements for environmental governance resulted in “the weakest”<sup>187</sup> environmental governance.<sup>188</sup>

## 5.5 Conclusion

It is crystal clear from the above discussions that the developing countries are not able to resist the benefits of differential principle causing deadlock in international environmental negotiations. It is asserted and identified from different quarters that solutions are sought outside UNFCCC framework by making regional alliances or similar club or independent efforts based upon traditional knowledge or indigenous approach but all such commendable solutions lack potential to respond to scientific grave realities.

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<sup>183</sup> Ibid

<sup>184</sup> Ibid

<sup>185</sup> Supra n 181

<sup>186</sup> UNGA. (2010). *Objective and themes of the United Nations Conference on Sustainable Development; Report of the Secretary General* (No. A/CONF.216/PC/7). New York: UN.

<sup>187</sup> Ibid

<sup>188</sup> Ibid

It is evident that we have “organizational explosion” and proliferation of instruments at international, regional and national levels. In short, we have scattered institutions, loose agreements and looming problems due to number of reasons, known to all of us. In the present scenario, it will be a right step to set up an International environmental agency to improve international environmental governance and environmental management. Therefore, It is also proposed to make UNEP an umbrella organization and put all specialized agencies, goal specific, under its cover.

This specialized agency would have the potential to effectively control the negotiation process for the new climate treaty, its ratification, and its implementation with monitoring arm, synchronized with the scientific realities.

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