# LOCATING THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITY IN THE CLIMATE CHANGE REGIME

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## 1. Introduction

Human societies adopt increasingly sophisticated and mechanized lifestyles. The amounts of heat-trapping gases in the atmosphere have increased. By increasing the amount of these gases, humankind has enhanced the warming capability of the natural greenhouse effect. It is the human- induced enhanced greenhouse effect that causes environmental concern. It has the potential to warm the planet at a rate that has never been experienced in the human history.[1] An international scientific consensus has emerged that our world is getting warmer. Abundant data demonstrate that global climate was warmed during the past 150 years. The increase in temperature was not constant, but rather consisted of warming and cooling cycles at intervals of several decades. Nevertheless, the long term trend is one of net global warming. Corresponding with this warming, alpine glacier has been retreating, sea levels have risen, and climatic zones are shifting.[2]

It is established that all states contribute to climate change and all states may suffer from the same consequence, of course, with little difference in gravity. The exploitation may increase in the days to come and evil consequence will follow the unrestricted manner of use. However, while all the nations should come forward to save the nature and have common responsibility to do so, the developed nations should take the lead, as they have been benefited at the cost of the nature. The principle of "common but differentiated responsibility" (hereinafter mentioned as CBDR) contains these notions. The principle of CBDR has wide application in climate change regime. This principle has, and should have, significant importance in implementing the laws relating to climate change.

This article deals with the issues, reasons and effects of climate change. It discusses the principle of CBDR, actions of major state

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1 www.climatechange.gc.ca/english/canada/goc.asp. Visited on 06.05.2004.

2 www.climatechange.gc.ca/english/canada/goc.asp. Visited on 07.05.2004.

parties, and the importance of implementation of agreements. How far the activities of states comply with the legal regime and the principle of CBDR is also discussed. This article emphasizes that a successful legal regime should have reflection of the principle of CBDR, so that there can exist a global equitable situation among and between the nations and regions of the world. Since the per capita emissions in the developing countries are still relatively low, the claim of implementation by applying the CBDR is justified. Some measures have been suggested to address the climate issues. Throughout this article it is being consistently claimed that reducing these emissions is crucially important because climate change is real and it is a threat.

This article deals with relevant Conventions and Protocol on the matter. Different books, articles, newspaper, websites are consulted for this writing. The article has seven sections. The first section is an introductory one. Section two gives idea about climate change, its causes and effects. The legal regime of climate change is discussed in section three. Principle of CBDR and its implications are described in section four. Implementing mechanisms are enumerated in section five. Activities of states and reflection of principle of CBDR is discussed in section six. Section seven draws conclusion and suggests ways to combat climate change.

## 2. Climate change : what it is

Climate change is a change in the "average weather" that a given region experiences. Average weather includes all the features we associate with the weather such as temperature, wind patterns and precipitation.[3] Climate change is defined in the United Nations Framework Convention on Climate Change (hereinafter mentioned as UNFCCC) as:

> "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 periods.[4]

### 2.1 Causes of climate change

The earth's climate is determined in large part by the presence in the atmosphere of naturally occurring greenhouse gases, including in

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[3] www.climatechange.gc.ca/english/canada/goc.asp. Visited on 07.05.2004.

[4] Article 1(2), the United Nations Framework Convention on Climate Change, 1992.

particular water vapour, carbon dioxide ($CO_2$), methane ($CH_4$), CFCs, nitrous oxide ($N_2O$), and tropospheric ozone ($O_3$). These are transparent to incoming shortwave solar radiation but absorb and trap long wave radiation emitted by the earth's surface. Their presence exerts a warming influence on the earth. Scientific evidence suggest that continued increase in atmospheric concentrations of selected greenhouse gases due to human activities will lead to an enhanced 'greenhouse effect' and global climatic change.[5] Carbon dioxide from emissions from the combustion of fossil fuels, production of cement, and agricultural and other land use (including deforestation) is widely considered to be the most significant contribution to the threat of climate change, but global emission of CFC-11 and 12, methane and nitrous oxide also pose a significant threat.[6]

**2.2 Effect of climate change**

Climate change is more than a warming trend. Increasing temperature will lead to changes in many aspects of weather, such as wind patterns, the amount and type of precipitation, and the types and frequency of severe weather events that may be expected to occur in an area.[7] Not all regions of the world will be affected equally by climate change. Low- lying and coastal areas face the risks associated with rising sea levels. Increasing temperatures will cause oceans to expand (water expands as it warms), and will melt glaciers and ice cover over land- ultimately increasing the volume of water in the world's oceans. Scientists estimate that sea levels could rise by an average of 5 cm per decade over the next 100 years. Some estimates suggest that sea levels could rise by almost a full meter by the year 2100.[8] Scientists have also determined that warming will be greater in Polar Regions than nearer to the equator, and that continental interiors will experience greater warming than coastal areas. This has serious implications for sensitive polar ecosystems, their wild species and the human inhabitants. Interior regions may face more frequent and intense heat waves.[9]

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5 See, UNEP, *Environmental Data Report*, 3-9 and 121-30 (1991).

6 Sands, Philippe, *Principles of International Environmental Law*, Manchester University Press, Manchester, 1995, p. 271.

7 www.climatechange.gc.ca/english/canada/goc.asp. Visited on 08.05.2004.

8 www.climatechange.gc.ca/english/canada/goc.asp. Visited on 09.05.2004.

9 *Ibid.*

The effect of global warming and sea level rise (SLR) has already become noticeable in different parts of the world. Rising sea levels have submerged two islands in the Sunderbans, where tigers roam through mangrove forests in the Ganges river delta, and a dozen more islands are under threat, scientists say.[10] "Two islands, Suparibhanga and Lohacharra, which have gone under water, could not be sighted in satellite imagery. The (disappearance of the) two islands have rendered over 10,000 people homeless", said Sugata Hazra, Director of Kolkata School of Oceanography.[11]

### 3. The United Nations Framework Convention on Climate Change

Framework convention signifies a Convention that provides instructions about what is to be done regarding the concern and objectives of the same. It does not strictly direct how is to be done or how the objectives would be carried out or even what would be the enforcement mechanisms. Strict obligation of the state parties on target achievement is also not present there. Therefore, the implementation depends on relevant factors. There exist some general obligations but no specific obligation. The preliminary convention on climate change is a framework convention, known as, United Nations Framework Convention on Climate Change (UNFCCC). [12] International initiative to face the problem of climate change was formalized with the adoption of this convention in May 1992. It entered into force in March 1994.[13] The UNFCCC does not instruct any emission reduction target on the state parties. Its objective is not indicative to the exact implementation level. Its objective is, therefore, 'stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system,'[14] and the time frame along with vagueness

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10 The Daily Star, Vol. XVI No. 334, December 22, 2006, p. 1.

11 *Ibid.*, p. 14.

12 Open to: States that are Members of the United Nations or of any of its specialized agencies or that are Parties to the Statute of the International Court of Justice and regional economic integration organizations (Article 20 ). Depositary: United Nations.

13 Opened for Signature in new York, 9 May 1992, Entered into Force: 21 March 1994 (Article 23).

14 Article 2 (Objective) of United Nations Framework Convention on Climate Change, 1992.

ensures to 'enable economic development to proceed in a sustainable manner'.[15]

### 3. 1 The Kyoto Protocol

On a conference held at December 1-11, 1997 in Kyoto, Japan the parties to the UNFCCC agreed to the historic Kyoto Protocol to reduce the greenhouse gas emission to protect the environment. The Kyoto Protocol includes emission's targets and timetables for industrialized nations and measures for meeting those targets. Throughout the international negotiations on a protocol to the Climate Convention, developing countries consistently declared that they would not agree to any limitations in their GHG emissions until the developed countries substantially reduced theirs.[16] In short the developed nations including United States who are responsible for the problem would have to agree to binding limitations on their own greenhouse gas emissions before expecting the same from the developing and poor nations. The stiff resolve of the developing countries was further demonstrated by a comment from one of their delegates at the October 1997 climate change talks in Bonn, made in response to President Clinton's announcement of the U.S. position that same month (which called on developing countries to take on new commitments for reducing their greenhouse gases): "No protocol is better than a protocol with new developing country commitments."[17] The developing countries acted on these sentiments in Kyoto, vetoing any language in the Protocol that would call them to make even voluntary commitments to limit their emissions on greenhouse gases.[18] Consequently the Kyoto Protocol of December 10,

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15 United Nations Framework Convention on Climate Change, Article 2 (Objective): "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."

16 After Kyoto, New round of Battle Coming Up, J. GROUP 77 ( Sept-Nov. 1997). see http://www.g77.org/Journal/sepnov97/06.htm.

17 Bettelli Paolo et al., Highlights from the Meeting of the FCCC Subsidiary Bodies, 12 EARTH NEGOTIATIONS BULL. 1, 16 ( Oct. 24, 1997).

18 Bettelli Paolo et al., Report of the Third Conference of the Parties to the United Nations Framework Convention on Climate Change, 1-11 December 1997.

1997 requires developed countries to reduce their aggregate emissions of greenhouse gases by five per cent below 1990 levels by 2012.[19]

The United State agreed to reduce its emissions by seven per cent, the Europeans by eight, the Japanese by six. A few developed nations were allowed to increase their emissions. Conforming to the principle of CBDR, the Kyoto Protocol does not require the developing nations to take on new commitments to limit their GHG emissions. All the specific obligations are, therefore, made for the developed nations.

### 3.2 Classification of states in respect of responsibility

States are classified into different category in respect of performing obligation for reduction of pollution level. They are classified as Annex-I, Annex-II countries in the climate change convention. Annex B countries (from the Kyoto Protocol) are essentially the same as Annex I countries (from the UNFCCC). But Belarus and Turkey are not included in Annex B. Annex B countries are Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America. [20]

### 3.3 General commitments and specific obligation

Countries are committed to reduce their emission level but few developed countries are under obligation to reduce their emission. In so doing, they are to take into account the 'quantified emission reduction target'. To attain the objectives of the UNFCCC all state parties are committed to take certain measures, taking into account their common but differentiated responsibility. These general commitments also incorporate the development of national inventories of anthropogenic emission by sources and removal by sinks of greenhouse gases,[21] formulation and implementation of national programmes and cooperation between parties. Basic obligation accepted by the parties is mentioned in Article 3(1) of the

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19 Art. 3(1), Kyoto Protocol, 1997.

20 Kyoto Protocol to the United Nations Framework Convention on Climate Change, December 11, 1997.

21 See, Art. 4(1), UNFCCC, 1992.

Kyoto Protocol. It requires the parties to reduce and restrict their emission of the greenhouse gases listed in Annex-A in a time frame and in certain quantity specified for them.[22]

## 4. The principle of common but differentiated responsibility

The environment is a common concern of humankind. All states have right to enjoy the benefits and privilege of it and all states have responsibility to save the same from serious harm. It is, therefore, common duty of every state to maintain its original and natural form. But the states are differentiated in respect of compensating or rewarding for safeguarding the environment.

### 4.1 Evolution and application of the principle of common but differentiated responsibility

The principle of 'common but differentiated responsibility' evolved from the notion of the 'common heritage of the mankind' and is a manifestation of general principles of equity in international law. The principle recognizes historical differences in the contribution of developed and developing states to global environmental problems, and differences in their respective economic and technical capacity to tackle these problems. Despite their common responsibilities important differences exist between the stated responsibilities of developed and developing countries.[23] The Rio Declaration states:

> 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 of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.[24]

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22 Kyoto Protocol, Article 3 (1) : "The Parties included in Annex I shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex A do not exceed their assigned amounts, calculated pursuant to their quantified emission limitation and reduction commitments inscribed in Annex B and in accordance with the provisions of this Article, with a view to reducing their overall emissions of such gases by at least 5 per cent below 1990 levels in the commitment period 2008 to 2012".

23 CISDL Legal Brief, for the World Summit on Sustainable Development 2002, Johannesburg.

24 Principle 7, The Rio Declaration, 1992.

Similar language exists in the Framework Convention on Climate Change. Parties should act to protect the climate system on the basis of equality and in accordance with their common but differentiated responsibilities and respective capabilities.[25] However, the Principle of CBDR includes two fundamental elements. The first concerns the common responsibility of states for the protection of the environment. The second concerns the need to take into account the different circumstances, particularly each state's contribution to the evolution of particular problem and its ability to prevent, reduce and control the threat.[26]

The principle of CBDR has its roots prior to UNCED and has achieved support, apparently, through state practice at the regional and global level. Common responsibility describes the shared obligations of two or more states towards the protection of a particular environmental resource. Common responsibility is likely to apply where the resource is shared, under the control of no state, or under the sovereign control of a state, but subject to a common legal interest (such as bio diversity – termed a common concern of humankind). The concept of common responsibility evolved from an extensive series of international laws governing resources labeled as 'common heritage of mankind' or of 'common concern'.[27]

Differentiated responsibility of states for the protection of environment is widely accepted in treaty and other state practices. It translates into differentiated environmental standards set on the basis of a range of factors, including special needs and circumstances, future economic development of countries and historic contributions to the creation of an environmental problem.[28] The Stockholm declaration of 1972 emphasized the need to consider the "applicability of standards which are valid for the most advanced countries but which may be inappropriate and of unwarranted social cost for the

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25 Article 3 (1) : "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof".

26 CISDL Legal Brief for the World Summit on Sustainable Development 2002, Johannesburg.

27 *Ibid.*

28 *Ibid.*

developing countries." In the Rio Declaration of 1992 states agreed that-

> Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply.[29] Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries. [30] The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority.[31]

Differentiated responsibility, therefore, aims to promote substantive equality between developing and developed States within a regime, rather than mere formal equality. The aim is to ensure that developing countries can come into compliance with particular legal rules over time- thereby strengthening the regime in the long term. Therefore, differential responsibility does result in different legal obligations.[32]

In summary, states have common responsibilities to protect the environment and promote sustainable development, but due to different social, economic and ecological situations, countries must shoulder different responsibilities. Thus the principle reflects the core elements of equity, placing more responsibility on wealthier countries and those more responsible for causing specific global problems. Perhaps more importantly, the principle also presents a conceptual framework for compromise and co-operation in effectively meeting environmental challenges.[33]

**5. Endeavour to fulfill commitments of the parties under Kyoto Protocol**

Climate change is a common concern of humankind. To protect the global climate, this concept was first introduced in a 1988 resolution of the United Nations General Assembly.[34] It has since been supported

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29 Principle 11, Rio Declaration on Environment and Development, 1992.

30 *Ibid.*

31 Principle 6, the Rio Declaration on Environment and Development, 1992.

32 CISDL Legal Brief, for the World Summit on Sustainable Development 2002, Johannesburg.

33 *Ibid.*

34 UN General Assembly Resolution 43/53 on the Protection of Global Climate for Present and Future Generations of Mankind, 6 December 1988.

by numerous international climate meetings.[35] The Kyoto Protocol suggests some mechanisms for fulfillment of commitment of the parties.

### 5.1 Emission reduction targets

The Kyoto Protocol has prescribed emission reduction targets for the Annex I parties on whom emission reduction is binding owing to the level and degree of emission. In the words of Philippe Sands: [36]

> The major achievement of the Kyoto Protocol was the commitment of Annex I parties to quantified emissions reduction targets and a time table for their achievement. The basic obligation accepted by the annex-I is set out in Article 3(1). It provides that Annex I parties 'shall, individually or jointly, ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of the greenhouse gases listed in Annex-A do not exceed their assigned amounts'. The 'assigned amounts' are calculated pursuant to each party's quantified emissions limitations and reduction commitments set out in Annex B. Annex I parties must implement their obligation under Article 3(1) 'with a view to reducing their overall emissions of gases by at least 5 per cent bellow. 1990 level in the commitment period 2008 to 2012'. This is estimated to represent an actual reduction of about 30 per cent over 'business as usual' emissions levels.

### 5.2 Mechanisms under the Kyoto Protocol: Emissions Trading, Joint Implementation and Clean Development Mechanism

Emissions Trading, Joint Implementation and Clean Development Mechanism are some of the most innovative mechanisms that enable parties to reduce emissions. These mechanisms are technique of shifting responsibility from one country to another. Any party on whom performance of obligation is binding may have the same done by another party who agrees to accept the trading deal. Sands states: [37]

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35 E.g., decision in 15/36 of the UNEP Governing Council; the Second World Climate Conference; Working Group I of the Intergovernmental Negotiating Committee on Climate Change (INC); the Noordwijk Declaration; the Langkawi Declaration; the Beijing Declaration, the Meeting of the Group of Legal Experts to Examine the concept of the Common Concern of Mankind in Relation to Global Environmental Issues, Malta, 13-15 Dec., 1990. (Summary of the discussions and reports, edited by David J. Attard, Nairobi, 1991.

36 Sands, Philippe, *Principles of International Environmental Law*, Cambridge University Press, Cambridge, UK, Second edition, 2003, p. 371.

37 *Ibid*, pp. 372-373.

> By far the most innovative (and controversial) aspect of Kyoto Protocol negotiations was the proposal to enable Annex I parties to meet their commitments under the Protocol by purchasing or acquiring credits representing greenhouse gas reductions in other countries. Emissions trading permits an Annex B party to 'buy' emissions reduction credits, in the form of assigned amounts units, from another annex B party where it would be more cost-effective for it to do so rather than to undertake the reduction domestically.

The inclusion of emission trading in the Protocol was strongly opposed by China and the group of 77 developing countries. Hence, the emissions trading system was not beyond controversy and opposition:

Sands reiterates:[38]

> An eleventh hour compromise text was included in the Protocol as Article 17. This allows annex B parties to 'participate in emissions trading for the purpose of fulfilling their commitments under Article 3', but provides that any such trading must be 'supplemental' to domestic actions taken to achieve emissions reductions. Article 17 left to the conference of the parties the task of defining 'relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading.

The basic mechanism for a trading regime has been defined in Article 3, paragraphs 10 and 11.[39] Any emission reduction units, which a Party acquires from another shall be added to the assigned amount for the acquiring Party and shall be subtracted from the assigned amount of the transferring one. However, this is a way made open to the developed countries to escape duty and obligation and use money rather than strict adherence which should have been ensured under the Protocol.

Regarding the Joint Implementation, Sands observed:[40]

> A further economic incentive mechanism included in the Protocol is the possibility for joint implementation by Annex I parties of their emission reduction commitments. Article 6 provides that for the purpose of meeting its commitments under Article 3, any Annex I party may transfer to, or acquire from, any other Annex I party

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38 *Ibid*, pp. 373.

39 See Kyoto Protocol to the UNFCCC, December 11, 1997.

40 Sands, Philippe, *Principles of International Environmental Law*, Cambridge University Press, Cambridge, Second edition, 2003, p. 373.

> 'emission reduction credits resulting from projects aimed at reducing anthropogenic emissions by sources or enhancing anthropogenic removals by sinks of greenhouse gases in any sector of the economy'. Annex I party may authorize private legal entities, under its responsibility to participate in actions leading to the generation, transfer or acquisition of emissions reduction units from joint implementation.

The Clean Development Mechanism (CDM) is another innovative mechanism which provides scope for developing countries to participate. As part of the CDM, Annex I parties can invest in emission reductions reductions accruing from such project activities to limitation and reduction commitments under Article 3. [41] On the other hand, joint Implementation invokes the concerted participation of interested Annex I parties in a project undertaken by them. Moreover, the private or public entities may be allowed to take part in Joint Implementation and CMD under the supervision of the Executive Board.

### 5.3 Reporting and compliance

The Protocol has established reporting obligations for the parties and has prescribed the review process for successful implementation of the Protocol Sands observes: [42]

> Detailed reporting obligations for Annex I parties are established by Articles 5, 7 and 8 of the Protocol. These build upon the reporting and review procedures developed under the Convention, particularly the in-depth review process. Article 5(1) provides that each Annex I party is required to have in place, no later than 2007, a national system for the estimation of anthropogenic emissions by sources and removal by sinks of greenhouse gases. Guidelines for such national systems are to be decided upon by the Conference of the Parties serving as the Meeting of the Parties to the Protocol at its first session. Under Article 7(1), each Annex I party is required to incorporate in its annual inventory of anthropogenic emissions by sources and removals by sinks, 'the necessary supplementary information for the purpose of ensuring compliance with Article 3'. Annex I parties are also required to include supplementary information to demonstrate compliance with commitments under the protocol.

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41 *Ibid*, pp. 373-374.

42 *Ibid*, p. 375.

The parties are expected to develop a structured system for the estimation of emission of greenhouse gases. The Conference of the Parties may suggest guideline for such systems. The Annex I parties shall enable themselves to provide relevant information in order to ensure compliance with the commitments under the protocol. [43]

### 5.4 Institutional arrangement

The Climate Change Convention establishes a conference of the parties (COP), a secretariat, two subsidiary bodies and a financial mechanism. The conference of the parties is the supreme body of the Convention, entrusted with keeping the implementation of the Convention under regular review and making decisions to promote its effective implementation. It met for the first time in 1995 and has subsequently met annually.

#### 5.4.1 Climate change negotiations : conference of the parties

The Kyoto protocol left several issues open to be decided later by the Conference of Parties (COP). Therefore, the Protocol provides provisions for the establishment of the implementing mechanism, the Conference of the Parties to the Protocol, which is entrusted with the task of supervising the implementation of the Protocol.[44] The first Conference of the Parties (COP) to the UNFCCC met in Berlin in March-April 1995 launched a new round of talks on strengthening the commitments of developed countries.[45] It resulted in consensus decision at COP 3 held in Kyoto (December 1997) to adopt a protocol under which only the developed countries will reduce their combined greenhouse gas (GHG) emissions by at least 5 per cent at 1990 levels by the period 2008-2012.[46] At COP 4 held in Buenos Aires in November 1998, the parties established a joint working group on compliance to develop a compliance system with a view to adopt a decision at COP 6. The Bonn agreement adopted at COP 6 in Hague took a decision on consequences a party would face in the event of failure to meet its target making the legal character of the compliance regime deferred. They include penalties i.e., make up the shortfall,

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43 *Ibid*, p. 367.

44 See Article 13.

45 Quoted from Desai, Bharat H., "Institutionalizing the Kyoto Climate Accord" *Environmental Policy & Law*, Vol. 29, No. 4, 1999.

46 *Id.*

suspension of its eligibility to sell credits under emission trading and development of a compliance action plan. The Seventh Conference of the Parties (COP 7) to UNFCCC was held in Marrakech, Morocco from 29 October to 9 November, 2001. The agreement so reached at the Conference is known as "Marrakech Accords". The parties, at COP 7 on the basis of Buenos Aires Plan of Action adopted at COP 4, finalized the operating rules for the flexible mechanisms. The Marrakech Accords establish that all the credits generated under the three mechanisms are equivalent and equally tradable. The Accords also allow the activities in the CDM project for the first commitment period. But the modalities and procedures for such activities were developed at COP 9, which include a limit on the extent to which Annex-I parties may use certified emissions reductions (CERs), generated from such sink projects towards their target.[47] However, the parties at COP 9 held in 2003 and COP 10 held in 2004 completed some unfinished business of Marrakech Accords. Thus, finally the European Union, Japan and other nations then ratified the Protocol.[48]

The first Meeting of the Parties to the Kyoto Protocol (MOP1) was held in Montreal from November 28 to December 9, 2005, along with the 11th conference of the Parties to the UNFCCC (COP11). [49] The conference attracted unprecedented business interest as a result of two operation trading systems: the pan-European emissions trading scheme and the Clean Development Mechanism. [50] On 10 December 2005 in Montreal, The United Nations Climate Change Conference closed with the adoption of more than forty decisions that will strengthen global efforts to fight climate change. [51]

## 6 The Kyoto Protocol and reflection of the principle of common but differentiated responsibility in state activities

The Kyoto Protocol to the UNFCCC is an international treaty on climate change. Countries that ratify this protocol commit to reduce their emissions of carbon dioxide and five other greenhouse gases, or

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47 Hossain, Md. Iqbal, "Combating Global Climate Change: Revisiting Kyoto Climate Accord", *Journal of the Faculty of Law", The Dhaka University Studies Part-F*, Vol. 15, No. 2, 2004, p. 225.

48 *Ibid* p. 213.

49 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 18.05.2006.

50 http://unfccc.int/meetings/cop_11/items/3394.php. Visited on 09.10.2006.

51 *Ibid.*

engage in emissions trading if they maintain or increase emissions of these gases.[52]

### 6.1 Objectives of the Protocol

Kyoto is intended to cut global emissions of greenhouse gases. The objective is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system." The Intergovernmental Panel on Climate Change (IPCC) has predicted an average global rise in temperature of 1.4°C (2.5°F) to 5.8°C (10.4°F) between 1990 and 2100. Current estimates indicate that even if successfully and completely implemented, the Kyoto Protocol will reduce that increase by somewhere between 0.02°C and 0.28°C by the year 2050. [53]

### 6.2 Status of the Protocol

The Treaty was negotiated in Kyoto, Japan in December 1997, opened for signature on March 16, 1998, and closed on March 15, 1999. The agreement came into force on February 16, 2005 following ratification by Russia on November 18, 2004. As of April 2006, a total of 163 countries have ratified the agreement (representing over 61.6% of emissions from Annex I countries). Notable exceptions include the United States and Australia. Other countries, like India and China, which have ratified the protocol, are not required to reduce carbon emissions under the present agreement. Australia and the United States have signed but currently decline to ratify it. The Protocol is subject to ratification, acceptance, approval or accession by Parties to the Convention. According to terms of the protocol, it enters into force "on the ninetieth day after the date on which not less than 55 Parties to the Convention, incorporating Parties included in Annex I which accounted in total for at least 55 per cent of the total carbon dioxide emissions for 1990 of the Parties included in Annex I, have deposited their instruments of ratification, acceptance, approval or accession." Of the two conditions, the "55 parties" clause was reached on May 23, 2002 when Iceland ratified. The ratification by Russia on 18 November

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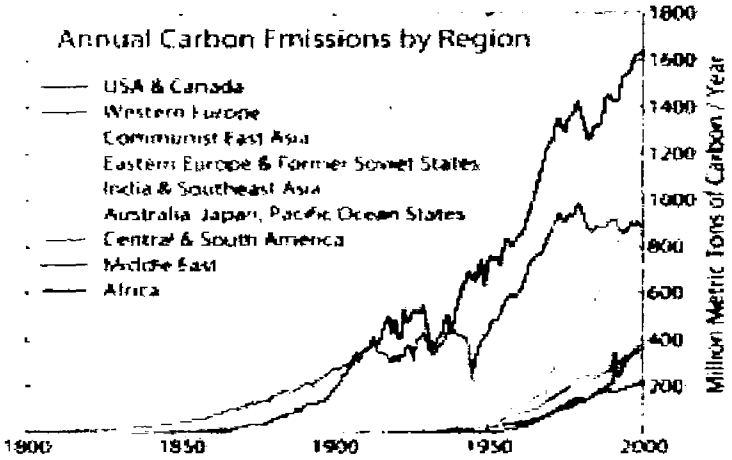
52 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 18.05.2006.

53 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 18.05.2006.

2004 satisfied the "55 per cent" clause and brought the treaty into force, effective from February 16, 2005. [54]

### 6.3 Actions of the states

The graph below shows the regional emission of carbon in the global context.[55]




Carbon emissions from various global regions during the period 1800-2000 AD as shown above makes it clear that from the year 1800 to 2000, countries of Western Europe have been consistently emitting carbon. The emission by USA and Canada has risen rapidly from 1850 to 2000 and the region has become the highest emitter in the global context. Eastern Europe and former Soviet States have also been identified as significant emitter.

#### 6.3.1 Position Russia

Vladimir Putin approved the treaty on November 4, 2004 and Russia officially notified the United Nations of its ratification on November 18, 2004. With that, the Russian ratification is complete. The issue of Russian ratification was particularly closely watched in the international community, as the accord was brought into force 90 days after Russian ratification. The Kyoto Protocol limits emissions to a percentage increase or decrease from their 1990 levels. Since 1990 the economies of most countries in the former Soviet Union have collapsed, as have their greenhouse gas emissions. Because of this, Russia should have no problem meeting its commitments under

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54 *Ibid.*

55 *Ibid.*

Kyoto, as its current emission levels are substantially below its targets.[56]

### 6.3.2 Position of the European Union

On May 31, 2002, all fifteen then-members of the European Union deposited the relevant ratification paperwork at the UN. The EU produces around 22% of global greenhouse gas emissions, and has agreed to a cut, on average, by 8% from 1990 emission levels. The EU has consistently been one of the major supporters of the Kyoto Protocol, negotiating hard to get wavering countries on board. In December, 2002, the EU created a system of emissions trading in an effort to meet these tough targets. Quotas were introduced in six key industries: energy, steel, cement, glass, brick making, and paper/cardboard. There are also fines for member nations that fail to meet their obligations, starting at €40/ton of carbon dioxide in 2005, and rising to €100/ton in 2008. Current EU projections suggest that by 2008 the EU will be at 4.7% below 1990 levels. The position of the EU is not without controversy in Protocol negotiations. However, one criticism is that, rather than reducing 8 per cent, the EU should cut 15 percent as they said they would during the negotiation. Also, emission levels of former Warsaw Pact countries who now are members of the EU have already been reduced as a result of their economic restructuring.[57]

### 6.3.3 The United States

The United States of America (USA), although a signatory to the protocol, has neither ratified nor withdrawn from the protocol. The signature alone is mostly symbolic, as the protocol is non-binding over the United States unless ratified. On July 25, 1997, before the Kyoto Protocol was to be negotiated, the U.S. Senate unanimously passed by a 95–0 vote the Byrd-Hagel Resolution, which stated the sense of the Senate was that the United States should not be a signatory to any protocol that did not include binding targets and timetables for developing as well as industrialized nations or would result in serious harm to the economy of the United States. On November 12, 1998, Vice President Al Gore symbolically signed the Protocol. The Clinton Administration never submitted the Protocol to the Senate for ratification. The President, George W. Bush, has indicated that he does not intend to submit the Treaty for ratification, not because he does not support the general idea, but because of the

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56 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 18.05. 2006.

57 *Ibid.*

strain he believes the Treaty would put on the economy. [58] Furthermore, he is not happy with the details of the treaty. For example, he does not support the split between Annex I countries and others. However, in June 2002, the American Environmental Protection Agency (EPA) released the "Climate Action Report 2002". Some observers have interpreted this report as being supportive of the protocol, although the report itself does not explicitly endorse the protocol. Later that year, Congressional researchers who examined the legal status of the Protocol advised that signature of the UNFCCC imposes an obligation to refrain from undermining the Protocol's object and purpose, and that while the President probably cannot implement the Protocol alone; Congress can create compatible laws on its own initiative. [59] However, the United States has signed the *Asia Pacific Partnership on Clean Development and Climate*, a pact that allows those countries to set their goals for reducing greenhouse gas emissions individually, but with no enforcement mechanism. Supporters of the pact see it as complementing the Kyoto Protocol while being more flexible, but critics have said the pact will be ineffective without any enforcement measures.[60]

### 6.3.4 Position of Canada

On December 17, 2002, Canada ratified the treaty. While numerous polls have shown support for the Kyoto protocol, there is still some opposition, particularly by some business groups, non-governmental climate scientists and energy concerns, using arguments similar to those being used in the US. There is also a fear that since US companies will not be affected by the Kyoto Protocol that Canadian companies will be at a disadvantage in terms of trade.[61] In 2005, the result was limited to an ongoing "war of words", primarily between the government of *Alberta* (Canada's primary oil and gas producer) and the federal government. There are even fears that Kyoto could threaten national unity, especially in Alberta. [62]

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58 Corn, David, AlterNet. Posted June 19, 2001.

59 CRS Report for Congress. See, http:// fpc.state.gov/documents/organisation

60 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 29.06.2006.

61 http://en.wikipedia.org/wiki/Kyoto_Protocol.Visited on 30.06.2006.

62 Alberta has developed a political culture that is more conservative, in both economic and social issues, than the rest of Canada. Its economic base and political culture are highly similar to the U.S. state of Texas; on occasion Alberta is referred to as "Canada's Texas". Alberta separatism arises from the belief held by some that Alberta is culturally distinct from the rest of Canada, and particularly from Eastern Canada, and from the belief that Alberta is harmed economically by providing financial support to other provinces through the federal transfer payment program. There is also significant opposition within

After January 2006, the Liberal Party government was replaced by a Conservative Party minority govenment under Stephen Harper, who previously has expressed opposition to Kyoto. During the election campaign, Harper stated he wanted to move beyond the Kyoto debate by establishing different environmental controls. Rona Ambrose, who considers the emission trading concept to be flawed, replaced Stephane Dion as the environment minister and the chief overseer of the protocol in the United Nations.[63]

On April 25, 2006, Ambrose announced that Canada would have no chance of meeting its targets under Kyoto, and would instead look to participate in U.S. sponsored Asia Pacific Partnership on Clean Development and Climate. "We've been looking at the Asia-Pacific Partnership for a number of months now because the key principles around [it] are very much in line with where our government wants to go," Ambrose told reporters. [64] On May 2, 2006, it was reported that environmental funding designed to meet the Kyoto standards has been cut, while the Harper administration develops a new plan to take its place.[65] Douglas Macdonald, a senior lecturer at University of Toronto Center for the Environment, predicted that the Harper administration would not actually withdraw from the Kyoto accord, which Canada formally ratified in 2002. "That would be too visible," he said. "They are more interested in smoke screens. Canada had been one of the leaders pushing for Kyoto. Now the government is saying we won't take it seriously."[66] The international agreement requires Canada to cut its greenhouse gas emissions to six per cent below 1990 levels by 2012. But since 1990, emissions have gone up, with the latest figures showing an increase of almost 30 per cent. [67]

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Alberta to the Kyoto Protocol as the Kyoto treaty has been believed to have negative effects on the provincial economy.

See <http://en.wikipedia.org/wiki/Alberta_separatism>.

63 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 30.06.2006.

64 CBC News, CANADA, Last Updated Tue, 25 Apr 2006 15:31:31 EDT. See more-See, for details:

<http://www.cbc.ca/story/canada/national/2006/04/25/ambrose060425.html>

65 Doug, Struck, Washington Post Foreign Service, Wednesday, May 3, 2006; A16. See <http://www.washingtonpost.com/wp> dyn/content/article/2006/05/02/AR2006050201774.html

66 http://www.washingtonpost.com/wp-dyn/content/article/2006/05/02/AR2006050201774.html. Visited on 04.07.2006

67 CBC News, CANADA, Last Updated Tue, 25 Apr 2006 15:31:31 EDT.

See more-
http://www.cbc.ca/story/canada/national/2006/04/25/ambrose060425.html

A private member's bill, Bill C-288, has been put forth by Pablo Rodriguez, Liberal Member of Parliament for the riding of Honoré—Mercier,[68] whose aim is to force the minority government of Stephen Harper to "ensure that Canada meets its global climate change obligations under the Kyoto Protocol." This bill has the support of the Liberals, the New Democratic Party and *le Bloc Québécois*,[69] and is currently being debated in the Canadian House of Commons. With the support of all opposition parties, this bill is expected to be passed, forcing Harper's government to form a Climate Change Plan within 6 months of the bill receiving royal assent. [70]

### 6.3.5 Position of Australia

Despite the fact that Australia was at the time of the negotiation already one of the biggest emitters on per capita basis, the country was granted an easy target of 8 percent increase. This is because Australia used its relatively smallness as a negotiation tool while other big players were negotiating. And the result of the negotiation was reported in its media as success. However, Australia has refused to sign the Agreement. The Australian Prime Minister, John Howard, has argued that the protocol would cost Australians jobs, and that Australia is already doing enough to cut emissions. This is despite the fact that the Australian government is keen to reduce Greenhouse gas emissions and has pledged $300 million over the next three years.[71] The Federal Opposition, the Australian Labor Party, is in full support of the protocol and it is currently a heavily debated issue within the political establishment. The opposition claims signing the protocol is a "risk free" prospect as they claim Australia would already be meeting the obligations the protocol would impose. [72] As of 2005, Australia

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[68] Honoré-Mercier is a federal electoral district in Quebec, Canada, that has been represented in the Canadian House of Commons since 2004. See details in : <http://en.wikipedia.org/wiki/Honor%C3%A9-Mercier_%28electoral_district%29>.

[69] The Bloc Québécois is a federal political party in Canada that is devoted to the promotion of sovereignty for Quebec. It also holds the goal of the "defence of the interests of all Quebecers in Ottawa" (notably by promoting, in the federal parliament, the consensus of the National Assembly of Quebec). It has very close relations with the Parti Québécois, though it is incorrect to say that one is a branch of the other. See <http://en.wikipedia.org/wiki/Bloc_Qu%C3%A9b%C3%A9cois>.

[70] The granting of Royal Assent is the formal method by which a constitutional monarch completes the legislative process of lawmaking by formally assenting to an Act of Parliament. See- http://en.wikipedia.org/wiki/Royal_assent

[71] http://en.wikipedia.org/wiki/John_Howard. Visited on 31.08. 2006.

[72] http://en.wikipedia.org/wiki/Australian_Labor_Party. Visited on 31.08.2006.

was the world's largest emitter per capita of greenhouse gases.[73] The Australian government, along with the United States, agreed to sign the Asia Pacific Partnership on Clean Development and Climate at the ASEAN regional forum on 28 July 2005.

### 6.3.6 China

The People's Republic of China is the world's most populous country and the second largest energy consumer (after the United States). China is a non-Annex I country under the United Nations Framework Convention on Climate Change, meaning that it has not agreed to binding targets for reduction of carbon dioxide emissions under the Kyoto Protocol. According to a report by the World Health Organization (WHO), seven of the world's ten most polluted cities are in China. [74]

According to the information from the U.S. EIA, Chinese energy-related usage produced 3.541 billion metric tons of $CO_2$, while the U.S. produced 5.796 billion metric tons.[75] However on a per capita basis the Chinese emit 1/10th the CO2 that Americans do and Americans emit more than twice the CO2 as their counterparts in similarly developed countries like Germany, France, and the United Kingdom that have ratified the treaty and agreed to further reduce emissions. [76]

### 6.3.7 Position of India

India signed and ratified the Protocol in August, 2002. Since India is exempted from the framework of the treaty, it is expected to gain from the protocol in terms of transfer of technology and related foreign investments. At the G-8 meeting in June 2005, Indian Prime Minister Manmohan Singh pointed out that the per-capita emission rates of the developing countries are a tiny fraction of those in the developed world. Following the principle of common but differentiated responsibility, India maintains that the major responsibility of curbing emission rests with the developed countries, which have accumulated emissions over a long period of time.[77]

## 7. Conclusion

In conclusion, the following findings and recommendations may be summed up:

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73 http://en.wikipedia.org/wiki/As_of_2005. Visited on 31.08.2006.

74 http://www.eia.doe.gov/emeu/cabs/china.html. Visited on 06. 06. 06.

75 http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 06.06.06.

76 UN Statistics Division.

77 See, http://en.wikipedia.org/wiki/Kyoto_Protocol. Visited on 06.06.06.

Climate change is a change in the average weather that a particular part of the globe experiences. Constant emission of greenhouse gases is responsible for global warming. Increasing temperature can lead to changes in many characteristics of weather. Severe drought, unusual inundation, late summer, dry monsoon and early winter are some of the warnings of severe effects of climate change and global warming. Therefore, climate change will affect agriculture, fisheries, livestock, forest and biodiversity which can threaten food security and existence of lives on earth. The people of the earth should make a choice right now, before it is too late.

Expected Sea Level Rise (SLR) would adversely affect the low-lying, densely populated deltaic coastal countries like Bangladesh, Egypt, Marshall Islands and the Netherlands.[78] The coastal areas are densely populated. SLR would, therefore, adversely affect human settlement in the coast, which would result in the ecological refugees. Eco-migration will take place within the country, as well as, its spill over effects would be felt by the neighboring countries of the region.[79] As deserts shall grow and fertile lands will shrink, there are possibilities to experience more disputes within and across boarders. The African countries are facing increased risks of famine as the disastrous change of climate is already occurring. Egypt may witness the loss of Nile flow from the south and rise of sea level in the north. Both may result to absolute destruction of its agricultural land and ecosystem across the Nile delta.

International initiative to deal with the problem of climate change was formalized with the adoption of United Nations Framework Convention on Climate Change. The parties to the UNFCCC agreed to a historic Protocol called 'Kyoto Protocol' which includes target of emissions reduction and specifies timetables and measures for meeting those targets. States are classified into different categories in respect of performing their obligations. Many of the developed countries are under obligation to reduce their emission level. Kyoto Protocol suggests some mechanisms for the fulfillment of commitment of the parties. The commitment of Annex-I parties to quantified emissions reduction targets is considered as the major achievement of the Kyoto Protocol. Other mechanisms included in the protocol are emissions trading, joint implementation and clean development mechanism. The Kyoto Protocol, because of its being

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78 Haque, Mahfuzul, *Climate Change: Issues for the Policy Makers of Bangladesh*, Dhaka, 1996, p. 7.

79 *Ibid* p. 8.

most comprehensive and rational in nature, should be accepted by all and therefore, be implemented by the states.

It is recognized as common duty of every state to maintain environment's original and natural form. But the states are differentiated in respect of compensating for safeguarding the environment. Once the earth was unlimited to be used and the developed nations utilized the resources of the earth and the nature with gradual abuses and in unrestricted manner that caused the disruption in the system and balance of the whole globe and caused today's climate change. Still this day, the developed nations are the greatest emitter of the harmful gases in the atmosphere. The attempts of the developing nations to be industrialized and to be in the level of production and to lead the economy like other developed nations is taking place in a time when the atmosphere is no more unlimited and the natural composition of the atmosphere, earth, biodiversity are almost disturbed and threatened. These developing countries still have small contribution to environmental degradation and climate change. Therefore, keeping in mind that the principle of CBDR is a manifestation of general principles of equity in international law, the developed nations should take the lead and rationally be responsible to address the issue by observing this principle. The developing countries can show the "Polluter Pays Principle" and ask the developed world to compensate the nature.

The major countries responsible for the matter are divided in their efforts and actions. The two major countries currently opposed to the treaty are the United States and Australia. United States is the single largest emitter of greenhouse gases. They emit almost 20 percent of the world's manmade greenhouse gases. Therefore, the United States is expected to be the first country to limit the emission. But it is not happening and thereby frustrating the successful implementation of the Treaty. Nevertheless, if it is said that the people is strength in democracy, then it gives hope that there is continuing and ongoing support for the implementation of the Treaty in the United States and Australia. The people of these countries are now criticising their leaders' choice on the matter. However, China, India, and other developing countries were exempted from the specific obligations of the Kyoto Protocol. The reason is: they were not the main contributors to the greenhouse gas emissions during the industrialization period which is believed to be causing today's climate change. On the contrary, it is noticeable that China and India are going to dominate the world market in diferent commodities in the days to come. Hence, it is expected that they should come forward to share the responsibility of reducing emissions. But the example of China and India should not be shown as an excuse to avoid responsibility by any

developed country. Developed countries should pay attention to fulfill their obligations only, as the earth's environment is already damaged because of different developmental activities done by them.

Bangladesh is apprehended to be the single largest vulnerable country due to climate change. More than 20 million people would turn into "environental refugees" if the sea rises by one meter.[80] Climate change and sea level rise would affect the whole country not the coastal ares only. The Sundarbans mangrove forest would be severely affected by floods due to climate change. Fisheries, agriculture and cultivable lands would be adversely affected by inundations. Emission of Carbon Dioxide by Babgladesh is one of the lowest in the world. Bangladesh should not wait to suffer from its adverse consequences. Therefore, before it is too late, Bangladesh should play an active role in international level on this issue.

It is necessary to introduce climate friendly-technologies in different sectors. The Government incentives and assistance can play an important role in technology deployment. To employ climate-friendly technologies, the Government can assist or encourage the corporations by providing tax subsidies. The investors, entrepreneurs and promoters should also have courage and will. Otherwise, the Government's money itself is not sufficient to motivate and promote use of climate friendly technologies. Moreover, following initiatives can also be fruitful to combat climate change:

(I) the parties to the Protocol, states, corporations, investors, and entrepreneurs can produce and use energy more carefully. In the energy sector, policy measures should be taken to improve and promote alternative sources of energy like wind and solar power, bio-gas plants etc. At the same time, fuel efficient technologies should be introduced in the industries, power generation, transport and other related sectors; (II) methods to capture and lastingly store carbon dioxide from the fossil energy sources can also be pursued as another means of combating climate change. But, voluntary programs and tax incentives are not sufficient to get these technologies deployed at a satisfactory scale and speed to avoid climate catastrophe. An obligatory limit on carbon dioxide emissions can, optimistically, create the right market conditions for these investments. Government should take initiatives to set the political framework to encourage and promote investment by using climate friendly technologies.

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80 Proceedings of the third workshop on *Special Situation of Low-Lying Deltaic Countries to Climate Change: Issues for the Policy Makers of Bangladesh,* held at Bangladesh Civil Service (Admn) Academy, Dhaka, on 5 October 1996. Key-note paper was presented by Dr. Mahfuzul Haque, National Project Director of National Environment Management Action Plan (NEMAP).