*THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES*

# Climate Change & Dysfunctional North-South Debate

**Reena**
Research Scholar, Political Science Department, A.M.U., Aligarh, India

***Abstract:***
*Though the outcome of Copenhagen and Doha has been seen by many as disappointing but the mere occurrence of such summits testifies to widespread recognition that the 'climate change' is one of the most important issues facing the humankind today. The Green House gas effect has contributed to enormous climate changes that are leading to summer heat waves, melting of snow, rise in sea level, more frequent flooding and in turn affecting health, welfare and future of human beings especially those of developing countries and people living in low lying coastal areas and small Island countries in different parts of the world. Though negotiations have come and gone with limited outcome, it is likely that discussions will continue about appropriate rate for developed and developing countries in greenhouse gas mitigation, the need for better monitoring, reporting and verification for all countries and urgency of rapid action. Amidst this wrangling, there remains at least one indisputable fact – that for the past two decade global warming has been seen as a biggest threat to our environment. Almost every month international conferences are organized on the topic but concrete evidence about manmade warming is still lacking. Richer countries like U.S.A. find it difficult to follow climate change negotiations at the same time, want India and China to cut their $CO_2$ emissions. It seems that whole issue has acquired a political dimension where developed countries are pressurizing developing countries despite knowing the fact that these countries are more vulnerable. The present paper aims to explain what the issue of climate change is?. Infact, there is an urgent need to find solution of this problem but the interests of both developed and developing countries are hindering the negotiations. We will discuss what we can do at community and individual level to reduce the level of Green House gases and thereby impact of climate change.*

***Keywords:*** *climate change, green house gases, developing countries, economy, poverty, renewable energy*

## 1. Introduction

Climate Change is one of the most prominent challenge facing the humanity today. One of the main reasons for such a change in climate is the increase in Green House gases (GHGs) level due to human induced activities which has contributed to the warming of the atmosphere bringing in enormous climate changes. Though change in climate is not a new phenomena because warmest spell on earth was about 100 million years ago when global temperature was estimated $10^oC$ higher than it is today. Sea level rose making the continents much smaller. This warm spell believed to have been caused due to enormous quantities of $CO_2$ emitted from large number of volcanic eruptions. Two million years ago the earth's average temperature was about $5^oC$ lower than what it is today. Thus, on the basis of extensive study of the geological records of mountains, valleys, river beds and fossils, scientists have come to the conclusion that approximately every 100,000 years the earth goes through period of dramatic changes in weather pattern. The last de-glacial period (when glaciers melted to uncover the land) took place about 10,000 years ago. This period saw the extinction of a large number of species. Glaciers melted in large part of Europe and North America. There was a trend towards warming between $10^{th}$ and $14^{th}$ centuries when the global temperature rose about $1^oC$ above what it is today. This was followed by 'Mini Ice Age Period' which continued into the $19^{th}$ century. During this period mountain glaciers expanded and global temperature was cooler especially in the Alps, Scandinavia, Iceland and Alaska.[1]Thus, earth's climate changes naturally. However in the last 150-200 years it has been observed that the changes have been little too rapid unlike the earlier natural phases when changes occurred slowly and definitely. In fact, the speed at which these changes have occurred in the last few decades is causing particular worry to scientists and climatologists. This acceleration has mainly been attributed to intervention of anthropogenic activities.

## 2. Anthropogenic Effects

The changes in the climate occur due to various factors, both natural and anthropogenic or human induced activities. Human activities are altering the chemical composition of the atmosphere by adding more and more GHGs to it. These gases absorb and trap sun's heat leading to global warming. According to *Inter-governmental Panel on Climate Change (IPCC) report* 1996, GHGs released by human activities remain in the atmosphere for varying length of time, the longest of which is $CO_2$ that can remain for several centuries. [2] The increase in the level of these gases has been as high as 70% over the last 3-4 decades. The $CO_2$ level due to combustion of fossil fuel (coal, oil, natural gas) land use and land cover change has grown by 311.26 parts per million to 370.89 parts per million. The average temperature over same time rose from $13.83^oC$ to $14.53^oC$, If $CO_2$ levels continue to rise as

predicted the earth's average temperature will rise by 1.4 to 5.8°C.[3] Each individual in today's world plays a key role in contributing his or her bit to climate change. Human activities emit 8000 million tons of carbon (MTC) per year as $CO_2$, and without measures to restrain, their emissions are likely to be doubled by 2050[4]. Further from mitigation perspective it is not only the increase in carbon emissions at the global level that is of concern, regional carbon emissions from forest fire, wood and dung fuelled stoves, transportation and coal fired power stations are creating atmospheric brown clouds that are most noticeable in South Asia and over the northern Indian Ocean. These clouds deposit dark particles and aerosols on the surface of glaciers that cause them to melt faster as they reflect less and absorb more solar energy.[5]

**3. IPCCs IV Assesment Report: A Brief Analysis**

Several extreme weather events have taken place recently in different parts of the world which have sparked interest in the subject of climate change The *IPCC* in its fourth assessment report indicates that it is 'unequivocal' that the earth's climate is warming. It is now evident from observation of increase in global average air and ocean temperature, widespread melting of snow and ice, and rising global mean sea level. It also confirms that the current atmospheric concentration of $CO_2$ and $CH_4$ exceeds by further natural range over the last 650,000 years. The Report also states the following about rising temperature:

Eleven of the last twelve years rank among the twelve hottest years on record (since 1850).

Over the last 50 years cold days, cold nights and frost have become less frequent while hot days, hot night and heat have become more frequent. Global warming particularly since 1970 has generally been greater over land than over the oceans.

Global concentration of $CO_2$ has increased by 31% since 1750. This is an amount not exceeded in the last 420,000 years. There has also been deforestation leading to more $CO_2$. In the last century temperature have gone up on an average by 0.6°C and sea level has risen by 0.1-0.2m.[6] Scientists studying different climate models predict that average global temperature will go up 1.4-5.8°C and sea level will rise between 0.09 and 0.88 M by the end of this century.[7] Several studies indicate that human induced global warming has already started affecting the glacier and icebergs. Ice in mountain range across the world is melting at an increasing rate with possible negative remifications for water flows in major rivers. Warmer temperature will lead to more vigorous hydrological cycle. This translates into prospects for more severe draught or floods in some place or less severe drought and flood in other place.[8] The sea around India has shown a 2.5 mm rise per year over the past few decades. If the rise in sea level continues at present rate it may have serious impact on shore line of Indian coast (both eastern and western). It may change life forever. For example, a half meter sea rise is enough to wipe out India's coastal areas.[9] Droughts and floods are taking place around the world. Climate Change has also resulted in number of other problems like, loss of biodiversity, species migration and malnutrition.

**4. North-South Politics Over Burden Sharing**

Behind the spectra of global warming and its potential to wreak havoc on weather patterns over coming decades, one of the key driving forces has been growing gap between the rich and the poor counteries of the world.The ***Earth Summit 1992*** held that major cause of continued deterioration of the global environment is the unsustainable pattern of consumption and production particularly in the industrialized countries.The industrialized countries of Northern hemisphere comprise only 20% of the world population, but account for 60-80% of GHGs The Industrialized nations have updated their cooling equipments, leaving poor developing nations as the main buyer in the market. Global warming and climate change exert a heavy prize in any country worldwide, but the long term cost is apparent in developing world where such degradation directly affects the food and fuel supply of the rural poor. Livelihood of poor people in developing countries is many times more dependent on climate based resources, so, changes in climate deeply affect these countries. On the other hand, this resources base is also eroding rapidly under the pressures from unprecedented population growth and inappropriate policies.For developing countries, climate change is a Northern issue. It is the North which has been and continue to be primarily responsible for emitting much of GHGs into the atmosphere, thus, creating the problem of climate change.The North industrialized countries have refused the demand of developing countries for technology transfer on non-commercial terms. Industrialized countries regard this arrangement as against the protection of Intellectual Property Rights. Developing countries, meanwhile, point out that being late entrants to the western style of economic development their population is poor and they have legitimate right to the demand an equal right to use of the available common atmosphere space. These countries are deeply concerned about their development and alleviation of poverty that always remain at the top of their political agenda. Developing countries construct the problem as one of equitable sharing of development space while, developed countries frame it as a techno-managerial problem to be solved with the help of markets. Overtime, the festering of this tension has led to deep mistrust between the North and the South making matter more complex.

Of all the issues involved, climate change is widely believed to be the acid test whether or not the countries are serious? Cooperation on the climate change issue is very difficult because response measures reach into heart of political and economic interests of the countries. Countries differ greatly in their economic strength and capacity to pay for response policies. Their vulnerability to the impacts of climate change is widely divergent. Some states such as low lying island states can be closer to margins of existence while a few may gain from climate change.[10] The politics of climate change generally revolves around issues like- how the burden of reducing emissions should be shared, relative importance of historical and current emissions, technology transfer and additional financial resources and the extent to which climate change links with wider questions about international political economy, such as, Third World debt and the world financial institutions. Another source of conflict is to be found in differing attitudes towards environmental impacts and inherent scientific uncertainties. This is not a fault line based on interests but an important aspect of political culture. All these testify to the complexities of North- South divide. [11] *(See fig. 1&2.)*

(The analysis of the emission trends of major Annex I countries (Fig. 1) illustrates that while emissions of the US have substantially increased 1950 onwards, for other countries it has either increased a little, decreased or stabilized. It is for the same

reason that other developed countries demand U.S. presence in any legally binding instrument to curb global emissions under an international climate change regime. Similar analysis of the emission treads of major Non-Annex I countries (Fig. 2) illustrates that most of these countires have shown increasing emission. However, the emissions of China are evidently much higher than that of other countires. In 2006, its emissions were almost three times than that in 1990. It is for the same reason,viz; rapid growth in emissions and the substantial share in global emissions China is being pressurized by the developed nations to accept binding emissions reduction target.) [13] Many developing countries feel that ***D*** in the ***UN Conference on Trade and Development (UNCTED)*** has been lost beneath Northern environmental preoccupation. To them real intention behind Northern emphasis on issue of the climate change and limitation of energy use of the poor countries is to check economic growth of these poor countries. On the other hand, developed countries say that developing countries are interested in climate change only to the extent that they look to the developed world for commitment to substantial transfer of finance and technology to help them,while expecting the developed world to cut on their emissions. Further, developing countries are using financial assistances and technology transfer as an instrument to blackmail them. But it should not be ignored that climate change unlike the Ozone depletion may seriously affect poor countries which are lying in hot regions, Therefore, making these countries more vulnerable to the threats of climate change. Developed countries, especially the US, argued that developing countries have also begun to industrialize and pollute more widely in the last decade. In spite of low cost of regulating emissions, still, most developing countries occupy leading position in the fields, such as, burning forests for agriculture, raising livestock and growing rice which are chief source of $CO_2$ and Methane.[14] High emitter nations argue that efforts made exclusively by them to reduce large quantities of GHGs will not only be negated by the increased emissions from developing countries but also impose high cost on their export making them globally less competitive. They argued that such efforts will result in economic slowdown and job loss in the West, a burden they cannot accept.[15] These concerns are exacerbated by the great inequalities in per capita emission and population. Average per capita emission of $CO_2$ from developing countries is nearly 1/10 of the Organization of Economic and Cooperation Development (OECD) Countries. Per capita emissions from regions, such as, the Indian sub-continent and Africa are 1/20 of those of the US. But, because of growing population, the developing countries account for about one quarter of global $CO_2$ emissions. Developing countries subsistence emissions are also associated with agriculture and land use changes that are proportionately much higher.[16] The countries like India and China that are most vulnerable to the threat of climate change, heavily depend upon coal for their energy requirements. China is the largest emitter of $CO_2$ in developing world. India's situation is different from that of China. Its per capita income is half than that of China. Further, India has about 300 million people living below poverty line, a number almost twice that of China. From the perspective of limiting $CO_2$ emissions, India's task is somewhat easier. Its per capita income is likely to continue to be much lower than that of China for many years. It can wait for larger emitters to work out the basis for emission limit and time frame and design its policies accordingly.[17] For the US any agreement largely based on limiting per capita emissions could mean losing its prominent economic status to China and India simply because they have larger populations.

The link of environment with economic development was successfully addressed at the Earth Summit, 1992, which laid down certain specific principles for the protection of environment keeping in consideration the development policies. Agenda -21 sets out measures that enable all countries to improve their economic structure through sustained economic growth. It also provides that states have contributed differently to environmental degradation, therefore, they should bear common but differentiated responsibility for protection of the environment. It also provides that developed countries should help their poor partners in the protection of environment. Despite this, at the Kyoto, Copenhagen and Doha conferences on climate change, developed countries, especially, the US, refused to follow the principle of common but differentiated responsibilities. They forced developing countries to shoulder similar responsibilities. The position here is that the science of climate change is inextricably linked to the politics of climate change. Now the question is how to break the deadlock and ensure more rapid efforts to arrive at some mutually agreed upon amicable solution.

**5. Voice of Petty Groups**

Politics on climate change is revolving not only between North and South but also among different groups within each bloc. Within the North, there is a conflict between the US and other developed countries. This division is not a temporary phenomenon and reflects diverse attitudes and interests of the countries. Whereas in the South, interests of groups, like – the Oil Producing and Exporting Countries (OPEC) and the Association of Small Island States (AOSIS) are deeply affecting climate change negotiations. The OPEC group led by Saudi Arabia and Kuwait is opposed to climate change negotiations which provide control over $CO_2$ emissions because economy of these countries is largely based on export of petroleum which is a chief source of $CO_2$ emissions. According to this group emphasis should be placed on carbon sinks, like forests and oceans that naturally absorb $CO_2$. They argue that before taking any step scientific uncertainties about causes and effects of climate change must be clearly revealed. In other words, more research must be done before definite actions are taken. The other top ranking emitters among developing countries are Brazil and Indonesia where emissions come mostly from high level of deforestation. Deforestation releases $CO_2$ stored in vegetables and the soil. Though Brazil has offered to cut its rate of deforestation by 70% in next 10 years but it can be done only when it receives enough compensation. Yet it has not identified exactly how much assistance it will need from richer countries. However the world should accept this condition and focus on finding ways to realize the government.[18] It is clear that worlds largest economy and second largest emitter of GHGs, the USA, is unwilling to make any substantial commitment for long term emission reduction targets. It also becomes clear that the US did not see itself in a position to earmark any significant financial assistance to support climate change actions in developing countries. In this regard Obama administration proved to be no more forthcoming than the Bush administration, though Obama put climate change and energy security at the top of his administrative agenda.The other developed countries do not want to lose their economic competitiveness and increase their financial burden as the global economic and financial crisis has shocked industrialized countries. To the US, the aspect of equity

represented by the principle of common but differentiated responsibilities and respective capabilities is also to be set aside. The US insists that irrespective of the UNFCCC, all major emitters including India and China must take emission reduction obligations. Further the UNFCCC, which recognizes the historical responsibility of developed countries is sought to be replaced by a single instrument where obligations are universal and reciprocal.[19] However, under these circumstances, what is imperative to move out of North- South dichotomy over environmental concerns and present with new policy alternatives that are global in scope and international in implication. In order to successfully deal with these challenges whether global warming, ozone depletion, poverty and environmental degradation, the environment must be factored into the policies on development and economic growth. An effective strategy for integrating environment and development is the concept of "sustainable development" i.e. economic growth that will meet the demand of the present without compromising the future. The current neo-liberal economic order as professed by its 'laissez-faire' policy adversely hampers the growth of ecological and sustainable development. The excessive use of natural resources is leading to lopsided and uneven economic development. Therefore, natural resources should be used equitably. In other words, combinations of Keynesianism and Nehruvian model of economic development need to be evolved in India to ensure ecologically just and sustainable economic development. Instead of 'free trade', the state has to play an interventionist role and the role of interventionist state needs to be supplemented by strong and robust civil society. We can then pose an alternative sustainable economic development model which is equitably and ecologically just.[20] Any serious effort to address global climate change will require effective and meaningful technology transfer because with limited financial and technological capability of countries this task seems impossible. Market mechanisms such as Clean Development Mechanism or direct aid programmes such as Green Climate Fund must support elaboration of policies in developing countries. With greater use of renewable energy including hydropower as well as nuclear energy, and a gradual switch over to electric power vehicles and more energy efficient system, there is every likelihood that developing countries particularly India and China can achieve their development goal and, still, be able to lower their per capita emission to a generally agreed upon target. The main question is one of timing? Whether this could happen in twenty years or whether it will take much longer.[21] Since India's emission of GHGs is only about 25-30% of those of China on a total per capita basis, it would not be difficult for India to agree to meet any target to which China, the US and the EU commit themselves.[22] Reflecting these concerns, one approach to meet the interest of different countries would be to set differentiated target dates for these countries, based on their per capita income at present and estimate of time it might take for new non carbon emitting technologies such as solar, wind, hydropower and nuclear to provide a substantial part of their energy needs.

**6. Conclusion**

Environmental measures need to be dealt with by cooperation among the states. The gap between the North and the South requires assimilation and integration instead of further abatement between the two. Environmental protection has been considered as a new form of imperialism "eco imperialism" by the North over the South. The developing countries consider the environmental policies as a new diplomacy by the North to rule the world. Another challenging aspect is to bring a balance between trade and environmental policies. Therefore swift and concerted action is necessary to prevent major damages to the world's life sustaining resources.

**7. References**


1. Saikia, Ranjana. (2010). Making Sense of Climate Change: A beginners Guide to Global Warming. TERI, New Delhi, PP. 6, 7.
2. Inter–Governmental Panel on Climate Change (IPCC) Assessment Report. 1996, 2001.
3. Pandey, Mahendra. (2005). Global Warming and Climate Change, Dominant Publishers & Distributers. New Delhi, P. 1-138.
4. Gilligon, Jonathan., Dietz, Thomas., Gardner, Gerald T., Paul, E. Stern., Nondenbergh, Michael P. (2010). The Behavioral wedge Reducing Green House Gases by Individual and Household. Significance, March. P. 17.
5. Morton, Katherine. (2011). Climate Change and the Security at the Third Pole. Survival, 53,( 1), 121-132.
6. IPCC, s IV Assessment Report, 2007.
7. Second Assessment Report of IPCC, 1995.
8. Tribune, 30. 4. 2004., P. 11.
9. Sagar, Ambuj & kandlikar, Milind. (1997). Knowledge, Rhetoric & Power: International Politics on Climate Change. EPW, Dec. 6, XXXII (49).
10. Peterson, Mathew & Grubb Michael. (1992). The International Politics of Climate Change. journal of International Affairs, 68,(2), 296.
11. Ibid, 296 - 299.
12. Pachauri, R.K. (2010). Dealing with climate change: Setting a Global Agenda for mitigation & Adaptation. TERI, P. 215
13. National Geographer . Jan.- June. 2003, XXXVIII, (1), 86, 87.
14. Lahiry, Sujit. (2010). Environment, Sustainable Development and Climate Change: A critical Review. journal of Peace Studies, 17, Issue, 2 & 3, 80-84.
15. Peterson, Mathew. op.cit., 297.
16. Siddiqui, Taufiq. (2011). China and India: More Cooperation than Conflict in Energy and Climate Change, journal of International Affairs, 64, 2, 80-83.
17. Levi, Michael A. (2009). Copenhagen Inconvenient Truth: How to Salvage the Climate Conference. journal of Foreign Affairs, 92,93.

18. Saran, Shyam. (2010). Post Copenhagen Scenario: India's Options & Interests. Indian Foreign Affairs journal , 5, 1-3.
19. Bales, Carter F., & Duke, Richard D. (2008). Containing Climate Change: An Opportunity For the US Leadership. Foreign Affairs , 87, (5), 79.
20. Lahiry, Sujit .op.cit., 80-84.
21. Driesch M. David & Popp David. (2010). Meaningful Technology Transfer for Climate Disruption. journal of International Affairs, fall / winter. 64,( 1), 1-2.
22. Siddiqui, Taufiq. op.cit., 88.

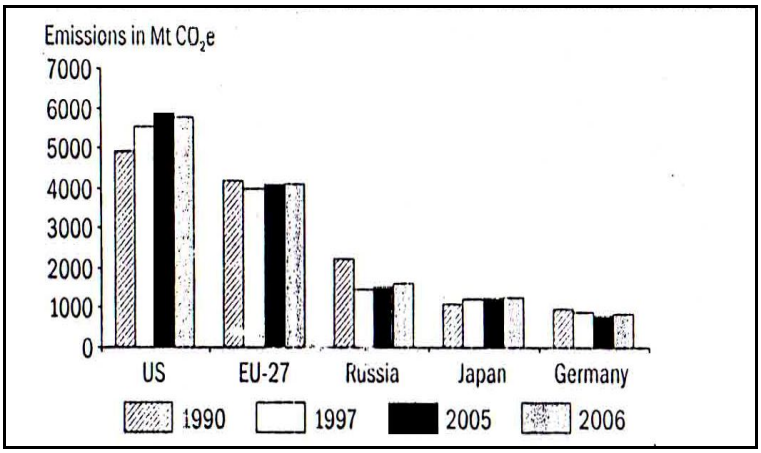


*Figure 1 : Emissions in major Annex I countries*
*Note: Mt$Co_2$e-million tones of $Co_2$ equivalent.*
*Data Source-World Resource Institute (2010).*

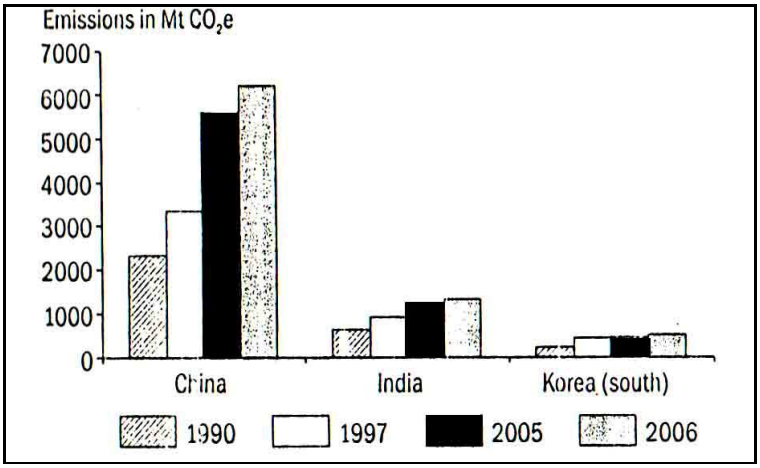


*Figure 2: Emissions in major Non-Annex I countries*
*Note: Mt$Co_2$e-million tones of $Co_2$ equivalent.*
*Data Source-World Resource Institute (2010).*