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TRAGEDY OF CLIMATE AGREEMENTS IN POST-KYOTO PHASE: COPENHAGEN AND BEYOND

ABSTRACT. Climate change is a global environmental problem that is caused due to human-induced increasing levels of the Greenhouse Gases (GHGs). The consequences of climate change are so severe that no country is immune from it. The problem of climate change has created a profound dilemma. There is no global treaty on climate change that can effectively reduce GHGs emission, fix the responsibilities and recompense damages caused to the environment. However, the contentious issue is: To what extent the developed countries should assist the poor countries in meeting the cost of adaptation? The United Nations Framework Convention on Climate Change (UNFCCC) has emphasized on assisting poor and the most vulnerable developing countries. During the Copenhagen Climate Change Conference, various countries adopted Nationally Appropriate Mitigation Actions (NAMAs) to stabilize their emissions of the GHGs. The key intention behind this collective action was to limit the level of temperature below 2oC over pre-industrial level in coming years. But mere pledges are not enough. In fact, more effective measures are needed to cope with rising global temperature. Moreover, significant changes are required in existing climate change policies and programmes. The United Nations (UN) emphasized the principle of Common but Differentiated Responsibility at the Kyoto, Bali, and Copenhagen conferences but the biggest contributors have refused to accept and abide by this principle. At the same time, things are not quite simple as limitation on CO2 mean limitations on economic growth. This has made climate negotiations a very contentious political issue as a result of which the very object of the UN to limit GHG emissions have turned into a tug of war. There is no serious political will to support climate change endeavours. Hundreds of measures have been negotiated in this direction, yet, most of these face problem of implementation. We should act efficiently and quickly to adapt to adverse consequences as projected by the Intergovernmental panel on Climate Change (IPCC). The effective mitigation measures must be taken, worldwide, to tackle climate change urgently. The time is running out. The climate change is the greatest challenge that requires immediate solution. The present paper critically analyses progress made in the field of climate change in the post-Kyoto period and provides to what extent treaties, like, Copenhagen Accord has been successful in dealing with climate change. The work of paper is primarily based on analytical and empirical approach. The significance of the study lies in the fact that climate change is a burning phenomena that the world community facing today. In fact, its solution is required. In this paper authors argue that no country in an isolated manner can cope with the problem of climatic change. In fact, global efforts based on cooperation of all states are very important.

KEY WORDS: climate change, greenhouse gas emissions, Copenhagen Accord, common but differentiated responsibility.

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INTRODUCTION

In recent years, climate change has become a severe threat to entire mankind. Uneven consumption of resources in developed countries and growing population of developing countries are chiefly responsible for creating the problem of global warming and climate change. The change in climate is putting stress upon the natural resources. Therefore, people are migrating from one place to another, thus, creating the problem of environmental refugees. The cost of limiting the level of the GHGs is too high, because, the use of coal and gas can adversely affect the economy of poor countries. The developed countries consume around 80 percent of resources, comprising just 20 percent of world's population, while, the developing countries facing extreme poverty do not want to compromise with their growth. Therefore, problem is who will bear responsibility of tackling climate change? There is no global treaty on climate change that can effectively reduce GHGs emission, fix the responsibilities and recompense damages caused to the environment. The UN has adopted the principle of 'Common but Differentiated Responsibility' to resolve the dichotomy in positions of the North and the South. But, the real question is how the UN can work effectively in a world where the largest polluters are, still, not ready to compromise with their economic interests? An effective solution that can truly work should be formulated before time runs out.

LITERATURE REVIEW

(Dessler and Parson 2010) in their work say that there are large differences among nations over how much they are contributing to climate change. The US, currently, emits about 20 percent of the world's CO2 but rapid economic growth in China brought its emission to surpass those of the US. However, in terms of per-capita emissions, china is much behind the US. The industrialized countries' share of world emissions is much larger if we consider cumulative historical emissions. To slowdown the level of GHG emissions, renewable sources of energy must be used. The renewable sources are sustainable and also emit less CO2. Like renewable sources, nuclear fission and fusion are energy sources that emit no CO2 into the atmosphere. The carbon can also be sequestered, biologically, in trees and soils. The market-based regulatory mechanisms are the most prominent new environmental policies adopted over the past two decades. The book focuses on the main forms of market-based policies, 'Carbon Tax' and 'Cap and Trade' system. The advantage of these policies is the flexibility they grant to emitters in responding. These two forms of policies are often proposed as the control element of a climate change mitigation strategies. A carbon tax can be charged on fossil fuels in proportion to their carbon content. The biggest role for direct public expenditure in mitigation policy is government supported research and development of advanced energy technologies.

(Singh 2010) says that adaptation and mitigation are complementary components of a response strategy to climate change. The adaptation will help developing countries to cope with climate change. At the core of most proposals is the reduction of greenhouse gases through reducing energy use and switching to cleaner energy sources. The newly developed and currently available technologies include renewable energy such as hydrogen fuel cells, solar power, tidal and ocean energy. The geo-engineering is another technique that involves large scale engineering of our environment to combat the effects of changes in atmosphere's chemistry. Several non-Kyoto carbon markets are in existence. These are likely to grow in importance and

numbers in coming years. The reduction of GHGs is crucially important, because, the CO2 is causing too much damage to the atmosphere.

(Levi 2010) focuses on the Copenhagen climate change conference and its outcomes. He says that now US has changed its policies or programme towards climate change. The Obama administration is taking ambitious steps to limit the level of GHGs at domestic level. This has cleared the road to climate change treaty. For the past years, many argued that developing countries, like, India and China do not want to commit to a new deal. They are simply hiding behind the US. In fact the countries do not want to compromise with their economic interest. However goal of climate diplomacy should be a safe planet rather than a treaty for its own sake. A global target for the reduction of GHGs should be established and divided between developed and developing countries. (Joshi and Linke 2011) emphasized that in developing countries, like, India climate change imposes new challenges that may require negotiating new international and national policies. The issue of development should continue to remain the focus of the global discourses. The sustainable development can be achieved if a balance is struck between economic development resource allocation and social justice. The developing countries are late entrants in the path of development. The nature and scope of the problem of global sustainability has long been recognized but not acted upon because of political considerations. The increasing financial and technological globalization is leading to re-balancing of the current framework of global environmental governance.

(Lal 2011) reviews the achievements made at the Copenhagen Climate Change Conference that could not prove much successful due to different issues raised by developed and developing countries. The developing countries strongly argued that climate fund should not be constructed as an aid but as a response to historical responsibility for past emissions. One of the critical issues raised at Copenhagen Conference was financing. The Conference introduced the issue of funding in a more significant manner. He, further, says urbanization in India is both a necessary input and an inevitable consequence of growth in the multiple transformations that India will undergo over this century.
Moreover, he focuses on impact of climate change on urbanization and emphasizes that a series of coordinated actions are necessary all the way up from the household to states and national level and, further, in the international domain. (Sanwal 2011) in this article points out that the United Nations is best placed to support a common understanding on patterns of resource use that are common for all. He, further, says that we need trans-formative change because we have to deal with the limited capacity of the planet to absorb carbon. The book focuses on the UN Conference on Sustainable Development (2012) that emphasized on green growth. There are limits to the total ecological burden, the planet can sustain. The transition to a low carbon economy will require a new economic model based on changing pattern of consumption and innovation.

(Zedillo Ernesto 2011) estimates different approaches to the control of global problems like

global warming. After more than decade of negotiations and planning, the first binding international agreement to control the emission of GHGs came into effect in the form of Kyoto Protocol. The institutional framework of the Protocol has taken hold solidly in the European Union-Emission Trading Scheme (EU-ETS) which covers almost half of the Europe's CO2 emissions. The ETS demonstrates that international emission trading on a large scale is, politically, and, administratively, feasible. He, also, outlines basic features of Post-Kyoto international global climate policy agreements. (Victor et al. 2012) state that the risk of climate change is rising sharply because the traditional approach of international climate diplomacy has failed to protect the world from climate change. New climate diplomacy should emphasize that CO2 is not the only warming pollutant gas because around 40 percent of current

global warming is generated by other types of pollutants: dark soot called black carbon Methane (CH4), Ozone, etc. Around 60 percent of India's soot emissions can be eliminated by replacing traditional stoves that burn unprocessed fire wood and dung with cleaner stoves. The author, further, emphasizes that many governments in developing countries, including Brazil and India, are also doing serious assessment but locally directed assessment are not occurring in the most vulnerable regions in Africa and low lying islands where sea level rise and severe storms are seriously affecting the countries. (Sikka 2012) observes India's stand on climate change problem. To him, India must adopt domestic action to enhance its climate change management. The efforts should be targeted towards achieving time bound outcomes related to energy efficiency. There is a need of technological solution that is appropriate, affordable and truly effective. The National Action Plan on Climate Change proposes eight missions to help the country in adaptation and mitigation of climate change. In this way, the Government of India seeks to make a bold move to prove commitment to mitigate climate change. Besides, India has a legislative agenda for greenhouse gas mitigation which will bring credibility to the actions through domestic political concerns. The Green India mission recognizes that climate change will seriously affect and alter the distribution of natural resources associated with livelihood of the people. This book emphasizes on restoration of ecosystem and habitat diversity. The local communities can play a key role in project governance and implementation. The environment and development must go hand in hand. (Bidwai 2012) argues that two decades after the Rio Earth Summit, despite publication of thousands of research papers which recommended urgent remedial measures, the world has failed to combat the threat of climate change. The Copenhagen and Cancun did not substantially resolve any of the contentious issues. However, the most tangible positive outcome of the Cancun Conference was an agreement to establish a Green Climate Fund. India is emerging as a major power, despite, the persistence of mass deprivation and poverty at home. Yet, there is no genuine domestic debate on how and to what end India should deploy its growing power in dealing with climate change. India can and must play prominent role in tackling global warming and climate change.

(Rayfuse and Scott 2014) examine participation of countries in climate change governance. The climate change governance poses the biggest challenge for international law in terms of participation. The efforts to reduce the emission of GHGs involve complex cooperative and innovative assignments among states, international organizations, sub-national actors, private sector and other stakeholders. With the passage of time, a complex multi-actor and multi-dimensional system of governance has emerged to tackle climate change. The focus of the international response is on the development of a multi-lateral climate change regime. Some 20 years after the adoption of UNFCCC, the international community has been unable to resolve its differences and arrive at a legally binding agreement. The Kyoto Protocol has failed to attract the participation and compliance of major developed economies. The 2009 Copenhagen Climate Change Conference, which was intended to adopt a successor Post-Kyoto instrument ended in failure. The climate change is an issue that connects many domains and has implications for various areas of international law and policy.

AIMS/OBJECTIVES OF THE STUDY

For the present study following objectives have been kept in mind:

- To critically analyse progress made in the field of climate change in the post-Kyoto period.
- To provide an answer to, to what extent treaties, like, Copenhagen Accord has been successful in dealing with climate change.
- To seek out new approaches and possibilities to combat the problem of climate change.

DATA BASE AND METHODOLOGY

Present paper is empirical in nature. It is based on analytical and descriptive methods. It is a data-based research coming up with

conclusions which are capable of being verified by observation or experiment. In this regard, the study makes use of both the primary and secondary sources of data. The primary sources have been collected from the Inter-governmental Panel on Climate Change (IPCC) reports, reports and decisions of the Conference of the Parties (COP) of the UNFCCC and the Kyoto Protocol, the Food and Agriculture Organization (FAO) and the United Nations Environment Programme (UNEP). The paper is also based on project reports related to the issue of climate change. The secondary sources include various books, articles, research journals. The collected data has been analyzed in order to draw inferences for the study.

Approaches to the study are both quantitative and qualitative. The decision to study climate change politics, especially, during Copenhagen summit is first and foremost based on a theoretical interest in how constructions of meaning influence politics, a passion for climate politics and some familiarity with UN,s work on climate change. I draw upon the literatures of climate change, environmental justice, international relations and political ecology to develop research paper and adopt a self-reflexive approach in my analysis. The interviews, conversations and observations are also a source of data. The need for global cooperation to address global environmental issues has arguably provided greater bargaining power to countries formerly marginalized in the global political economy.

But empirical research on anthropogenic climate change is constrained by two fundamental facts. First, climate change is unprecedented and second, its impacts occur gradually. This implies that neither evidence from recent history nor the near future can directly inform policy. Under such circumstances, empirical research must focus on capturing particular features of future climate change and policy, which, combined with theory, can provide credible out-of-sample predictions. In this way, the proposal will use new data settings and methodologies to causally examine central questions related to climate change mitigation, adaptation, innovation, and impacts in India. Results from this research can help in future climate-related research and various issues regarding the politics of climate change.

DISCUSSION AND RESULT

The Copenhagen and Climate Change

The UN Convention at Copenhagen is regarded as a very important step in the field of climate change. The popularity of the conference is evidenced by the gathering of around 130 heads of government from 191 countries and nearly 35000 delegates including activists, scientists and industrialists, etc. It was during this summit that, for the first time, science of climate change was unanimously accepted by the world community. At the summit, diplomats decided to negotiate a successor to the Kyoto Protocol that could be legally binding over developing countries also. But developing countries, like, India and China, refused to commit to a deal that will be legally binding upon them. To them, developed nations are legally bound to cut their emissions because they are historically responsible for the problem of climate change. On the other hand, the developed countries emphasized that, though, they have created much of the GHGs but developing countries cannot shirk away from responsibilities as they likely to contribute to GHGs concentration on an increasing basis.

According to developed countries, around 40 percent emissions are being added by these countries into the atmosphere in recent years. Therefore, the responsibility must be equitably shared between developed and developing countries (Dutt Gautam 2009a). In other words, developing countries should play more explicit role in limiting the level of the GHGs. They should not leave it, exclusively, on the developed countries by saying that they are historically responsible for creating the problem of climate change (Dutt Gautam 2009b). The Obama Administration took an ambitious step in the form of 'Cap & Trade' and 'Clean Energy Legislation' to limit the CO2 level at home. The US wants emissions reduction

from China and India, also. On the other hand, China and India are demanding that developed countries should commit to cut their GHG emissions by over 40 per cent from 1990 level by 2020. But, the US and other developed countries are not ready to meet this goal. China along with other developing countries is also asking developed countries to provide as much as one per cent of their collective GDP or more than US $ 300 billion, annually, to a fund that can help rest of the world to reduce its emissions and adapt to climate change. The industrialized world is not ready to meet this demand (Michael A. Levi 2009).

What happened to Copenhagen Accord?

The Copenhagen summit can be seen as an important step because this was the last agreement to not only continue with the Kyoto Protocol (expired in 2012), but, also strengthen the carbon emission reduction regime. The summit made it fully clear that unless the developed countries reduce their carbon emissions to 40 per cent of the 1990 level by 2020, it will be very difficult to contain global warming to less than 2°C increase over pre-industrial level. Despite these achievements, the 'Copenhagen Accord' that was produced at the Copenhagen Climate Change Conference was criticized on the grounds that developed countries used it as an instrument to replace the Kyoto with a new climate change regime, which will be legally binding on the poor developing countries, also. Further, the Accord was regarded as a three pages document that does not provide any figure for reduction of the GHGs that developed countries are supposed to take after 2012 on an individual basis or as an aggregate target.

Another critical issue that was much contentious at Copenhagen is related to finance. The Accord emphasized that developed countries should provide $ 30 billion in 2010-12 through global institutions, like, the World Bank. Moreover, it was stated that industrialized countries will together provide $ 100 billion a year by 2020 to the developing world. But, this is a distant possibility as the obligation was only for 'mobilizing' finance and not an assurance of actual fund. The actual fund is also uncertain, hence, not forthcoming, as, the Accord the basis of fund will comprise public and private sectors as well as substitute sources (Martin Khor 2010). Another critical point of the Accord is that while it has provided to check rise in global temperature below 2°C, it does not specify any global plan of emission reduction that can enable this goal to be achieved (T. Jayaraman et al. 2010).Copenhagen was criticized by the environmentalists on the grounds that it failed to deliver a fair, binding and ambitious deal. This was described as an 'important breakthrough' by the US President. There was much debate over the issue of monitoring, reporting and verification of national commitments made by developing countries, particularly, India and China to reduce carbon emissions. This provision was criticized on the ground that any review and verification of domestic carbon is a threat to national sovereignty of the states. The Copenhagen has been criticized as inadequate but the fact cannot be ignored that it is the only treaty that for the first time recognize the need to restrict the warming below 2°C on the basis of equity and sustainable development. It emphasizes on the potential adverse consequences of global warming over poor developing countries and stresses on the need for comprehensive adaptation. In this way, it opens the doors for further negotiations to achieve a goal of restricting global warming to below 2°C (Bert Bolin 2007b). But, it is difficult to achieve this goal in a politically divided world. Hence, the states must understand the severity of climate change and cooperate with each other in achieving the goals as set up by the UN.

Today, the time has come to rethink the model of climate change regime that focuses solely on national emissions rather than on activities that generate the emissions. The present approaches to climate change do not address important drivers of emission of the GHGs i.e. human beings. Since, the global atmosphere is used by all states whether developed and developing, reduction of the GHGs anywhere will help in combating the threat of climate change. The developing countries are poor and not in a

position to invest much money in tackling climate change. Therefore, it is required that developed countries should provide financial and technological support to the poor countries.

India is not as affluent as China. It lacks massive capital reserves, unlike China. Brazil presents a different sort of challenge. Its energy system is one of the cleanest in the world, primarily, because of its heavy reliance on hydroelectric power and biomass energy. But, its emission absorption capacity has been greatly reduced due to huge scale deforestation. However, the solution requires that Brazilian government should be financially assisted by developed countries to pay put a stop to cutting down of trees and provided funds for planting trees. An agreement on a long term vision is required to be achieved by climate change regime working under the UN. The mechanisms, like, the CDM that are funding GHG emissions cutting projects must be streamlined by focusing on the Least Developed Countries, too (Bert Bolin 2007c). The UN Convention at the Kyoto has already provided that policies and measures to deal with climate change. It should be cost effective so as to ensure global benefits at the lowest possible cost. In this way, both regulatory measures and economic instruments can be used for reduction of the GHGs. Further, the IPCC has also emphasized on instruments, like, emission trading and carbon taxes that can help in the reduction of the costs of achieving a global target. In this way, the Kyoto was a first major step taken by the UN that introduced economic instruments to achieve specific targets. Despite this, the role of the UN has been criticized on the grounds that it has failed to achieve the desired targets (Bert Bolin 2007d). But the fact cannot be ignored that the Kyoto was a major step of the UN that created a political regime for the prevention of human-induced climate change.

Beyond Copenhagen

After Copenhagen, the UN took another major step at Cancun where decision to set up the Green Climate Fund (GCF) was taken with substantial majority. This fund provided for $ 100 billion to be mobilized by the developed countries jointly per year by 2020 to address mitigation and adaptation needs of developing countries (Anwer Sadat 2011). In Post-Copenhagen phase, further efforts were made at the COP-17 that was held in Durban. Again, the developed countries evaded their climate change responsibilities, although, they account for three-fourth of GHG emissions accumulated in the atmosphere. The states at the conference decided to postpone all significant climate actions, particularly, deep reductions in GHGs emissions of developed countries by 2020. However, such actions are needed before 2020 to save the earth from global warming to keep below 2°C over pre-industrial level (Praful Bidwai 2007a).

Like the Kyoto, the Durban Conference did not provide any legally binding commitments based on Common but Differentiated Responsibility. However, among its major outcomes, the Durban Platform for Enhanced Action (DPEA) can be regarded as an important step. It provided that by 2015 parties to the UNFCCC should negotiate a legally binding instrument that will be implemented by 2020. But postponing large reductions in GHG emissions to 2020 can again create problems. It, further, shifts the burden of combating climate change from the North to the South, despite the fact that the northern world is, chiefly, responsible for emitting large amount of the GHGs in the atmosphere. This is weakening the principle of Common but Differentiated Responsibility as enshrined in the UNFCCC.
Since the Copenhagen Summit 2009, the EU backed by the US has succeeded in ensuring that Common but Differentiated Responsibility, the most significant principle on which the Kyoto Protocol was based, is diluted in any future treaty. The EU and the US have argued that China (which, in absolute terms, not in per- capita, is the largest emitter) and other large developing countries, like, India, Brazil, and South Africa must also be bound, to a smaller extent by legally binding emission limits. They hold that the world has moved on since the Kyoto was negotiated. Now it cannot be divided into two halves the developed and developing countries (Praful Bidwai 2007b).

In the Post-Kyoto period, the UN has made remarkable efforts on a consistent basis. It has organized a number of conferences to find a solution to climate change. But, the track record is not satisfactory due to diverse interests of the countries. The COP-19 of the UN was held in Warsaw, capital of Poland, where negotiations on a new global agreement in 2015 were intensified under the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP). It was emphasised that the agreement should cover mitigation, adaptation, finance, technology development and transfer, capacity-building and transparency of action and support. The countries' should present their intended nationally determined contributions (INDCs) to a global agreement by the first quarter in 2015 in a transparent and clear way. With regard to mitigation action before 2020, countries agreed to strengthen measures to close the gap and a series of technical expert meetings for 2014 were planned. It was decided that developed countries should made efforts to mobilize $ 100 billion annually by 2020 and to convene 129 ministerial meetings on long-term finance every two years from 2014 to 2020. In addition, the Parties agreed that the Green Climate Fund (GCF) should be ready for capitalization in the second half of 2014. Moreover, governments agreed on the Warsaw International Mechanism for Loss and Damage to address losses caused by the impact of climate change in developing countries (The End of Hope. 2010).

At Warsaw, the countries agreed to develop the Warsaw Framework for REDD+ (Reducing Emissions from Deforestation and Forest Degradation), including monitoring and verification rules and measures to enhance the protection of forests (The End of Hope. 2010). In fact, in developing countries, forests are major carbon sinks that help in reduction of the GHGs. However, the main concern of discussions at the conference was to produce an agreement to reduce the level of global carbon emissions so as to check it from exceeding 2°C above the pre-industrial level. But, differences persisted between developed and developing countries over a number of issues related to finance and carbon emission targets. The developed countries emphasized that there should be binding targets for all countries that must be implemented by 2020. But countries, like, India and China were opposed to any binding targets on developing countries because, it is against their developmental concerns. However, a basic pre-requisite to mitigate the threat of climate change is not only finance but also a common understanding of the problem of climate change. The stabilization of the GHGs must be a cooperative endeavour across the globe. At the same time, it is important to recognize countries' differing capabilities to contribute to abetment of climate change. The countries should protect the climate system for the benefit of present and future generations. Each country should adopt national policies and take measures for the mitigation of climate change by limiting its anthropogenic emissions of the GHGs and protecting and enhancing its GHGs sinks. Yet, the prime onus lies with developed countries because they are more affluent and historically responsible for creating this problem (Bert Bolin 2007e).

The Lima Climate Conference achieved a range of important outcomes and decisions where levels of transparency and confidence-building reached new heights. The industrialized countries submitted themselves to questioning about their emission targets under a new process called a Multilateral Assessment. The Lima Ministerial Declaration on Education and Awareness calls on governments to put climate change discourse into school curriculum and climate awareness into national development plans. Another important outcome of Lima was 'Lima Call for Climate Action' that provided a way for final agreement to be signed in 2015 in Paris. Under the 'Lima Call for Climate Action', states are required to submit their carbon reduction targets by mid-2015.

Recently, COP-21 was held in Paris where countries negotiated the Paris Agreement on the reduction of GHGs. This agreement set a goal of limiting global warming to less than 2°C compared to pre- industrial level. The agreement would be legally binding if joined by fifty five countries representing fifty five percent of global GHGs emission.

On 22nd April 2016 (Earth Day) 174 countries signed this agreement that is considered a remarkable achievement. During the conference, India represented the cause of developing countries. It insisted that the developed countries should accept the historical responsibility of having emitted most of the GHGs into the atmosphere. The developing countries should not be burdened with binding carbon emission reduction targets in a manner that hampers their growth. The developing countries are organized under the group G77 and other smaller groups. The four leading developing countries Brazil, South Africa, India and China have formed a group known as the BASIC to put up a common approach and strategy for climate change negotiations. However, the fact remains that the deadlocks between the developed and developing countries are creating hindrances in negotiations over a number of issues, like, the division of responsibility for climate change mitigation mechanisms and actions between developed countries and developing countries. An important shortcoming of the Conference was that no provision was made for financial contribution by developed countries to the GCF. The contribution made by the developed countries to the poor developing countries is nearly $ 10 billion per annum. In this way, like the previous conferences, the outcome of Lima was also not very fruitful as far as the most serious issue is involved.

The significance of the Kyoto Protocol has been greatly undermined by the changing global GHG emissions profile. It has been described as irrelevant for countries that are enjoying significant economic growth after 90s. The countries, like, India and China are emerging as fast growing economies as a result of which there is subsequent change in global emissions profile. Therefore a significant treaty is required to deal with climate change according to changing global emission profile. (Table 1)

Thus the emission of the GHGs from developing countries will inevitably rise due to their requirements of economic growth. Besides, there is little evidence to show that new technologies are immediately available for large scale deployment. There are a number of economic and political factors that limit access to the currently available best technologies to the developing world. Instead of developed countries, the developing countries need to know the extent of 'Carbon Space' that is available to them (Tejal Kanitkar et al. 2009). Hence, the recent negotiations on climate change show that in order to get an effective solution to the problem of climate change, action should be taken at all levels, including, regional and global, involving civil society, women and youth. Education can play an important role in instructing youth about negative consequences of climate change and finding out its solutions. In the meantime, a new agreement should be prepared to find a multi-faceted solution to the complex problem. At the same time, earnest efforts should be made by the UN to resolve disputes that are creating hindrances in climate change negotiations. A country's contribution to GHG emissions should be counted on the basis of per-capita emissions not on the basis of total emissions per country. Moreover, an agreement on climate change should be based on the principle of Common but Differentiated Responsibility and Capacity where developed countries are required to make more efforts to tackle climate change because these countries are more capable financially and technologically. India, being a large country in Asian region should help in tackling climate change. However, the development concerns of all developing countries cannot be de-emphasized. The states should press local authorities, private firms and individuals within their territories to take appropriate actions to tackle climate change. But transformation of international commitments into national policy and further into locally implemented measures can raise some questions. Why should we act when our contribution is hardly discernible or should we really participate in combating climate change when non-participants might benefit without contributing time and resources? (Biel and Lundqvist 2008b). But the fact cannot be ignored that in democratic countries, individual citizens and local communities can play a prominent role in the implementation of climate

Table 1. Figure showing percentage share of countries in global emission of GHGs

1950	1990	1997	2005	2006
US (42.3)	US (23.3)	US (24.2)	US (21.3)	**China (21.8)**
EU (30.1)	EU (19.8)	EU(17.5)	**China(20.3)**	US(20.3)
Germany(8.7)	**China(11.0)**	**China(14.6)**	EU(14.9)	EU(14.5)
UK(8.5)	Russia(10.5)	Russia(6.4)	Russia(5.6)	Russia(5.7)
Russia (7.1))	Japan(5.3)	Japan(5.3)	Japan(4.6)	**India(4.7)**
France(3.4)	Germany(4.6)	**India(4)**	**India(4.5)**	Japan(4.4)
Canada(2.6)	Ukraine(3.3)	Germany(3.9))	Germany(3)	Germany(3)
Ukraine(2.0)	**India (3)**	U.K(2.3)	Canada(2)	Canada(1.9)
Poland(1.9)	UK(2.7))	Canada(2.2)	UK(2)	UK(1.9)
Japan(1.7)	Canada(2.1)	**S Korea(2)**	**S Korea(1.8)**	**S Korea(1.8)**

(Top 10 Emitters)

Source: R. K. Pachauri. (2010), Dealing with climate change: Setting a Global Agenda for Mitigation and Adaptation. TERI, New Delhi.

The above figure focuses on top-10 GHGs emitting countries during 1950 (historic bench mark), 1990, 1997 (Kyoto Protocol adopted), 2005 (Kyoto Protocol entered into force) and 2006 (China superseding the US in absolute terms). The list includes significant growing economies. Historically, developing countries have emitted little. However, they are rapidly emerging as leading players, especially, China with about 11 percent of the global emissions of 1990, doubling to 21.8 percent in 2006. China is being pressurized by the developed nations to accept binding emission reduction targets. China has now surpassed the US to become the world's largest emitter of the GHGs in absolute terms.

change policies. In these countries people enjoy constitutional rights and duties and by making proper use of their rights they can help local and national authorities in the protection of the environment (Zedillo Ernesto 2011b).

CONCLUSION

The change in climate is a global problem, therefore, every state should take initiatives to resolve it. It is a common problem of mankind. All states should participate in an international effort to reduce the level of GHG emissions for the purpose of environmental effectiveness and economic variability and efficiency The UN has rightly figured the high contribution of developed countries in the GHG emissions, hence, imposed binding targets on them. Their per-capita emissions are, even today, significantly, much higher than those of developing countries. Even though, norms of the UN are not binding on developing countries, like, India and China, global pressure is being built up upon these countries to take a start in agreeing to bind emission cuts. Hence, the Post-Copenhagen global climates change policy in moving towards effective participation of both developed and developing countries.

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