

CLIMATE CHANGE AND DEVELOPING COUNTRIES: ISSUES AND POLICY IMPLICATION

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Abstract

This paper proceeds from the assumption that climate change has both natural and human (that is, anthropogenic) causes. It argues that the interaction of these two major sources are inextricable. It also notes that although more than eighty percent of the human causes of adverse climate change are attributed to development activities undertaken by the advanced industrial nations, almost eighty five percent of the negative consequences of climate change are pitifully borne by the developing countries of the world. It points to the looming pre-eminence of neo-liberal development perspective as lying at the roots of the rapidly degenerating integrity of the planet earth. The paper therefore locates the solution to this menace in autonomous development strategies, which are environment friendly. This demands proactive policy measures which are synergetic - that is, in addition to global and regional networks, an inter-ministry, inter-agency and inter-departmental approach, since the phenomenon of climate change is sectorally cross cutting.

Key Words: Climate change, developing countries, anthropogenic, policy measures.

Introduction

Two decades since the Earth Summit in Rio, (i.e 1992) to the negotiations at Kyoto, the international system is preparing for another round of a comprehensive review of the governing framework for attaining the goals of sustainability through slowing the process of climate change, thereby reducing the possible adverse effects on humanity of the phenomenon. Indeed at this crucial time, all parties to the negotiations would go there better informed and equally armed, having seen more practical manifestations, and consequences, of climate change. Significantly, if there is consensus on any one issue in the climate change discourses, it is about its concrete and fundamental reality. What remains in contention, among others, is the distribution of the costs of climate change among the developed and not-so-developed countries. There is, however, no doubt that developing countries bear the brunt of the costs of climate change in disproportionate degrees.

In lay terms, climate change and all of our growing concerns about it implies the need to strike a balance between the insatiable quest for development on the one hand, and the need to preserve the life support system of the planet earth on the other. Accordingly, it has been argued, and convincingly too, that it is our seeming inability or reluctance to sustain the balance in the life support system of our planet in the past that is responsible for the

cataclysmic weather patterns in which floods submerge places that were almost impossible to imagine as submerged; or torrential rains in semi-desert areas; or low crop yields due to insufficient rains in largely agricultural terrains, etc. This phenomenon is also closely associated with some strange illnesses or extreme hot weather in traditionally cold places.

Human activities (i.e. anthropogenic factors) are said to be responsible for the growing rate of climate change and its adverse effects. In particular, development activity is said to be the chief driver of climate change. What this implies is the need for humanity to moderate, in a fairly determined manner, its activities in a way that neither compromise the environment nor development in human societies. A logical starting point for a discussion in this paper is to ask these pertinent questions: can the present development framework support the quest for environmental sustainability? In particular, how feasible is environmental sustainability in developing countries in the light of the prevalent neo-liberal orientation to development policy frameworks in those countries? What alternative policy frameworks can developing countries put in place that will meet their developmental needs without compromising irretrievably their immediate physical environment? Are there concrete measures that can help decelerate the process of climate change?

For the developing countries these questions, among others, are central to understanding and determining appropriate policy response frameworks that will address the peculiar needs of the region with regards to the ever more topical issue of climate Change. Accordingly, this paper will attempt to seek answers to these questions.

Conceptual Elucidation

In this section we shall clarify and operationalize the key terms that constitute the conceptual building blocks of our discussion.

Developing Countries

According to Wikipedia, the free encyclopedia, “a developing country, also known as a less-developed countries (LDC), is a nation with a low living standard, undeveloped industrial base, and low Human Development Index (HDI) relative to other countries. But former United Nations (UN) Secretary General, Kofi Annan defined a developed country as follows: “A developed country is one that allows all its citizens to enjoy a free and healthy life in a safe environment.” (http://en.wikipedia.org/wiki/Developing_country P.I). However, the United Nations Statistics Division caution that “there is no established convention for the designation of “developed” and “developing countries or areas in the United Nations system” (Ibid) and therefore notes that, “the designations “developed” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by the particular country or area in the development process”.

Given this seemingly indeterminate nature of the concepts of “developed” and “developing” which prefix nation states across the global system, it may be difficult to pin down countries that can neatly be designated developing. To the rescue Naidu, (2011:24) has come up with a simplified parameter which tends to place countries on the continuum of developmental

movement from what Fred Riggs (1963) terms “agraria” to “industria.” From this he distills the common traints of all developing countries who, no doubt, are mainly located in the African, Pacific and Carribbean regions, as follows:

- (a) majority of them have colonial pasts which is linked to fundamental development dislocations;
- (b) they are relatively at early stages of social development;
- (c) they contend with crises of poverty, unemployment, population explosion, wide spread illiteracy and poor health facilities;
- (d) they are mainly defined by socio-economic heterogeneity, which pre-dispose them to atomistic politics of sub-national identity, with attendant political instability;
- (e) their political leaders make ostensible commitment to real development but the **will** and **capacity** to realize it seem to be dismally limited;
- (f) these countries present prismatic outlooks in which the old and new, traditional and modern organizational / institutional forms define society, polity and economy, and
- (g) generally, the industrial sectors here are yet to attain what by international standard, is commonly labeled “developed”.

This shall be our conception of “developing countries” in the remainder of this paper.

Climate Change

Although climate change is increasingly becoming clearer as a practical phenomenon by the day, its academic conceptualization is still fluid. This is because it has largely remained an academic and policy issue. For this reason, its conceptualization has been shrouded in high sounding technical lexicon that makes comprehension very challenging.

Climate change is a consequence of anthropogenic green house gases (GHG) Emissions related to resource consumption and production processes, which simultaneously influences the productive basis of the economy and human living conditions.

According to Rhaji (2012, 3), climate change is a pattern of change affecting global or regional climatic conditions, as measured by changes in such factors as average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused both by natural processes and human activity. The problem or phenomenon of climate change arises because the concentration of greenhouse gases (GHGs) produced by human activity has increased significantly (Spore, 2008). Some of the major features of climate change include natural resource depletion, reduction of the Ozone layer, and global warming. These features are, to a larger extent, mutually reinforcing. Of the three, global warming has attracted a lot of attention so much that it is often seen as synonymous with climate change. It suffices to state at this point however, that climate change is a long-term phenomenon, and may take at least seventy years to manifest. Let us now address the salient features of global warming.

Global Warming

This refers to the palpable increases in global temperature that causes the atmosphere to be warmer. According to Nicholson (1998, 158), the earth is getting warmer principally because of human activity which results to the release into the atmosphere of certain gasses, mainly Carbon Dioxide, CO₂. As large quantities of these gasses concentrate in the

atmosphere, they trap heat, which would have escaped if much of those gasses were not in the atmosphere, thereby raising the temperature of the earth. this is what is referred to as the *Green House effect*. Some of the major effects of global warming include rising of sea level, more frequent violent and catastrophic storms, hurricanes, etc. As earlier mentioned here, human activity is the chief driver of climate change, and in this regard, deforestation has been fingered as one of the main contributing factors of global warming. A brief look at the role of forests in maintaining environmental balance will suffice here.

Forests play quite a number of significant roles in maintaining the equilibrium of, not just the environment, but in the entire system of planet earth. for instance, forests play very cardinal roles in maintaining soil fertility, and by implication in guaranteeing food security, among others. This is normally done through the storing and transpiration of water for precipitation. Forests also serve as natural habitat for a lot of animals and plants. For example, the forests in Gabon alone is said to contain over 8000 plant species, almost 200 mammals and over 670 species of birds.. Furthermore, forests communities, who often depend on it to meet their basic needs. But most of all, forests are said to play determining roles in carbon sequestration, where they act as nature's store house for CO₂.

Deforestation does not only lead to the disruption of these vital life support processes, it also is a major source of Green House Gases emission in to the atmosphere thereby aggravating global warming.

In the last two decades, the growing industrial resource hunger among developed and other industrialization countries has been a major driving force behind the growing problem of deforestation and its attendant consequences. According to the Intergovernmental Panel on Climate Change (IPCC), an estimated 1.6 billion tons of CO₂ ARE discharged into the atmosphere every year through deforestation activities. And according to Africa Files, "annually, 25% of GHGs are directly attributable to the cutting and burning of tropical forests". Accounting for the problem of deforestation and global warming, the World Rainforest Movement (WRM), noted that "... deforestation is the inevitable result of the current social and economic policies being carried out in the name of development". The WRM further submitted that

The root of the problem of deforestation and waste of resources are located in the industrialized countries, where most of our resources, such as tropical timber, end up. The rich nations with one quarter of the world's population consume four fifths of the world's resources.

According to available data on logging and commercial export of raw tropical log, the above submission by the WRM, can be buttressed by these statistics, for instance, that well more than 3.5 cubic meters of raw tropical logs were exported from Africa in 2006,... with China and other Asian countries taking over from the United States and the European Union as main destination. Gabon, Cameroun and Nigeria's Cross River State are said to be most hard hit in Sub-Saharan Africa. Add to this scenario the reality of GHGs emission resulting from industrial and other urban activities, in which the state of Texas in the USA for instance, with just a total population of 23 million people emits more CO₂ than all the 270 million people of Sub-Saharan Africa. This evidence on the contribution by regions of the

world to global warming and climate change brings us back to the earlier question on the distribution of the costs of mitigating climate change.

Policy

In pedestrian parlance, policy means a programme of action/s which has been adopted by an organization (public or private) to which there is already a statutory commitment. In another casual sense, there is a common place fallacy which conceives of “policy” as a personal principle, such as when a young man tells his friends or even play mates that, “*my policy is to stop smiling as from January 1st.....*” But is policy in a formal sense just a programme of action within organizational context? There is a temptation to hold this conception as valid. But, *strictu sensu*, policy would involve a course of actions of a formal organization, which usually begins with a decision to plan and subsequently draw up a network of activities targeted at specified goals.

Adding the prefix “public” to “Policy” appears to be an attempt to pin down the conception of “policy” to government business. Since in this paper we are concerned with the policy measures of governments at international, continental, sub-regional, national and sub-national levels, we would hold policy to mean *public policy*. In this case, we shall conceive of policy as a derivative from the programmatic decisions and plans of actions of government at varying levels of operation, which is targeted at the mitigation of and adaptation to climate change in the developing countries of the world.

Tracking International and National Adaptation Measures

Contemporary concerns with the mitigation of the adverse impacts of climate change could be traced to the Conferences organized under the auspices of the United Nations, beginning with the United Nations Conference on the Human Environment (UNCHE), held at Stockholm in 1972. In the build-up to, and during the Stockholm Conference, developing countries went beyond the issue of pollution, which was to dominate discussion at Rio, to emphasize the link between development and the environment. The UNCHE accepted the linkages between environmental consequences and economic growth, hence the copious place of this nexus in the recommendations of the conference. Notwithstanding the flagrant disregard by industrialized nations, of the recommendations of the conference, the Conference on the human environment made sufficient impact enough to get the United Nations to establish the United Nations Environment Programme (UNEP). The second major Conference organized by the United Nations in response to the growing international concern with the environment was to come twenty years after the Stockholm conference. Named the United Nations Conference on Environment and Development, (UNCED), it took place in Rio in 1992. This Conference came up with the Agenda 21 and also introduced the concept of sustainable development.

In 2002, the United Nations convened another conference in Johannesburg, i.e. the World Summit on Sustainable Development, (popularly called Rio + 10). The Rio + 10 Conference served the international community, with all its diverse actors, the opportunity to assess what progress was made on the implementation and realization of the goals

established at Rio. Despite the fact that there was little or no successes with the reduction of emissions of GHGs since the Conference at Rio, Rio + 10 was said to be short on extracting further commitments to cutting GHGs emissions. Instead, the World Summit at Johannesburg was tall on setting new targets (O'brien and Willians, Ibid, 346). In May 2012, the international community convened at Kyoto (Rio + 20), to further assess the progress made in attaining sustainable development. At the end of the gathering, participants agreed on an outcome document which called for a wide range of actions such as beginning the process to establish sustainable development goals, detailing how the green economy can be used as a tool to achieve sustainable development.

The document also called for strengthening the United Nations Environmental Programme (UNEP), promoting corporate sustainability, reporting measures, taking steps to go beyond gross domestic product to assess the well-being of a country (i.e emphasis on Human Development Index–HDI), developing a strategy for sustainable development financing and adopting a framework for tackling sustainable production and consumption. It also focused on improving gender equity, recognized the importance of voluntary commitments in sustainable development, and stressed the need to engage civil society and incorporate science into policy, among other points.

However, what is evident so far is the fact that very little or nothing has been done to change the existing framework that weakens the capacities of developing countries to put in place policies for sustainable development of their societies.

This context brings us to the discussion on the issues relevant for mitigating the adverse consequences of climate change and achieving sustainable development goals in developing countries.

Climate Change: Issues and Policy Implications for Developing Countries

Mitigating the challenges of climate change requires both national and international collaboration amongst relevant key actors. This is so because a number of environmental problems defy national boundaries to affect, often in a challenging manner, the entire geographical fabric of the international economic and political systems. This necessitates the adoption of some measures of international agreements and conventions. Secondly, global environmental change is inextricably linked to national and international systems of production, distribution and consumption. Indeed, as Hurreii and Kingsbury, (1992:3) rightly observed, the increasing generation of environmental problems and the effective and efficient workings of the international economy engendered by globalization cannot be separated. Thus, this integrating aspect of global climate change necessitates a corresponding integrated international agreement and framework to both manage international environmental problems and deal with environmental problems within national confines in a manner that will not place individual states, or a group thereof, at any political or competitive disadvantage.

The closely interwoven relationship between climate change on one hand, and domestic and international economic, social, and political spheres on the other generate a multiplicity of impacts requiring a multi-dimensional approach for its effective management. Among the dominant issues on the agenda of developing countries and in the discourses on climate change is the lack of capacity of the international framework for managing environmental problems to enforce its numerous agreements due largely to an ability to

extract compliance, especially from industrialized countries. Often, this leaves developing countries at the receiving end. While they contribute relatively insignificant proportions of the causations of climate change generally, this group of countries bears the brunt of the costs of mitigating climate change. This becomes obvious when we consider the relative scientific and technological weakness of the developing countries who also lack the financial, and other logistics capacity to mitigate the effects of global warming.

The apparent insatiable hunger for raw materials by developed and newly industrializing economies, such as Brazil, Russia, India, China, etc is a growing source of concern. While this category of countries invade developing countries in search of raw materials, often oil, timber and other resources in return for development assistance, developing countries, desperately in need of development assistance, often oblige them. In the process of exploring and/or exploiting natural resources, vast forest and other natural resources are depleted and abused in the developing countries' quest for primary sources of energy. Obviously, this convergence of interests leaves the environment worse off, and developing countries bear the biggest amount of adverse consequences. The issue at stake therefore, is one of hard choices for developing countries. Should developing countries refuse the offer of generous development assistance which compromises the need for sustainable use of resources?

The Way Forward

In the decades since the end of the Cold War, developing countries have come under the strong influence of the institutional frameworks for the globalization of the ideals of neo-liberalism. The result has been a near blanket institutionalization of market oriented economic structures and systems. In these developing countries now, the private sector, driven by its profit motives, champions the course of development, mostly in those countries which have embraced the market economy option heartily. Some of the major pillars of economic liberalism challenge the logic of sustainability in very profound ways. So, can the markets govern environmental preservation? Or should developing countries bring back the state to ensure strict compliance with both local and international environmental best practices? How will this impact development in the short run in both the developed and developing countries of the world? It seems very obvious that for developing countries, the contradictions of environmental sustainability on one hand, and the needs for development on the other is sharpest. Therefore, what appropriate policy response measures should developing countries adopt?

Part of the problems of the agreements and protocols on environmental management from Stockholm to Rio +20 has been the top-down nature of the policies on the sustainable use of natural resources. Except for the World Summit at Rio +10 (Johannesburg), earlier Conferences were considered largely elitists, exclusionary and therefore lacking the popular support of the people. Thus, the growing prominence of non-state, not-for-profit, non-governmental organizations in the management of environmental problems is a healthy development for environmental sustainability.

An acceptable consensus could be that the policy orientation of developing countries must aim at deconstructing the wider institutional contexts of climate change. This will require that their policies, at national and regional levels, must be holistic, pragmatic and

responsive to the realities of the developmental needs of the people and societies, rather than serving a framework that rewards the perpetrators and prime movers of the problem at hand, our policy makers should be audacious enough to evolve these development strategies; they should be visionary and transformational leaders? They should develop the political will to cut appropriately on this delicate issues, they should be interested in formulating problem-solving or problem-generating public policies. The academia should earnestly be incorporated in the search for a viable, sustainable and conducive environment as key to sustainable development.

Finally, it is scarcely necessary to point out that a result yielding climate change adaptation and mitigation strategy on a national, sub-regional or even regional scale requires an integrated approach – an approach that equally carries along, not only national governments ministries, agencies and departments but also NGOs, communities, civil society organizations/academic institutions, (CSOs), community-based organizations, the private sector and the epistemic general public.

If all relevant hands are on deck then climate change management philosophy will be wound around two ultimate objectives, namely (a) to build societies that can easily adapt to natural disasters and (b) ensure that development processes are sustainable and less vulnerable to natural hazards. Developing nations would have no choice in the present circumstance but to adopt this philosophy of development.

Conclusion

From the foregoing discussion on Climate Change and the policy challenges it poses for developing countries, it is evident that a dominant cause of environmental degradation in general and climate change in particular is located in human activities, (anthropogenic factors) particularly those that emit GHGs. This process of human activity is characterized by inequity, in the appropriation and use of natural resources in which developing countries bear the brunt of the costs of climate change, even though they contribute significantly little or nothing to the causes of the phenomenon.

After several rounds of negotiations, it is more compelling and desirable for developing countries to adopt policy frameworks that will respond to their domestic exigencies first before those of the international system. It is therefore strongly suggested that environmental policies must be people-friendly, people-centred and people-driven.

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