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Emerging opportunities for responding to climate change in the Obama administration : why China should propel developing countries towards global carbon reduction cooperation

Richard INGWE

Centre for Research and Action on Developing Locales, Regions and the Environment

S. P. I. AGI

University of Calabar, Nigeria

James OKORO

University of Calabar, Nigeria

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Emerging Opportunities for Responding to Climate Change in The Obama Administration: Why China Should Propel Developing Countries Towards Global Carbon Reduction Cooperation

Richard Ingwe¹ S. P. I. Agi², and James Okoro³

Abstract

The use of diplomatic brinkmanship by the USA and her more recent uncooperativeness with global response to the climate crisis (Kyoto Protocol) under the presidencies of George W. Bush and Bill J. Clinton has led to fears in quarters that China, a rapidly industrialising country might opt to become uncooperative in the global climate change efforts. We use suitable conceptual frameworks of international relations to review the US' previous conduct in international relations during the "cold war" among others to analyse recent issues pertaining to global carbon reduction under the Kyoto Protocol. We argue that China's rising profile in economic, political and social spheres especially the way it offers loans on softer terms compared to the Western Consensus model, her ratification of the Kyoto are among the several indications that her relationship with the USA and other nations in carbon reduction portend good relationship in future. We argue also that President Obama's promise of acknowledging the reality of climate (change) science and to lead other nations in responding to the crises seem to be getting fulfilled based on recent evidences. We conclude that the future for global cooperation between the USA and China, on one hand, and between USA and the rest of the world, on the other, present grounds for optimism that global carbon reduction would proceed more peacefully and profitably than it was hitherto.

Background

The world faces a multiplicity of challenges. Widespread and prolonged poverty afflicting a large proportion of the world's population especially in the developing world since previous decades had frayed nerves leading to numerous conflicts and wars. Ideological differences had in the 1960s brought the world to the brink of a nuclear holocaust when the defunct USSR and USA threatened to go to war which could have culminated in the deployment of nuclear weapons. In August 7, 1998, terrorist networks had emerged and instrumented bombings of US missions simultaneously in Nairobi (Kenya) and Tanzania killing hundreds of people and destroying precious property compelling the US to retaliate with Tomahawk cruise missile attacks on al-Qaeda bases in eastern Afghanistan, followed by unilateral and later multilateral sanctions by the US and UN security council resolutions 1267 and 1333 aimed at subduing the Taliban leadership to surrender and trial.

The 9/11 and 11/11, 2001 bombings of the twin towers of the World Trade in centre New York and the Pentagon in Washington, D.C Killing over 2000 people in the former represents the escalation of terrorism. The US response packaged as "Operation Enduring Freedom" on Afghanistan was expanded to cover Iraq leading to a bitter experience for both Americans and Iraqis. Although the Taliban regime fell on 13 November 2001, the US offensive on Iraq persists and formed one of the central issues of the US presidential campaign in 2008 (Maley in McLean and McMillan 2003:9-10). These existing widespread conflicts will be exacerbated with increasing warming of the world, abrupt and dangerous

¹ Senior Scholar, Centre for Research and Action on Developing Locales, Regions and the Environment (CRADLE), Calabar, Nigeria. Telephone: (+234)8051740656; Email: cradle.africa@gmail.com and ingwe.richard@gmail.com

² Reader, Department of Political Science, University of Calabar, Calabar, Nigeria

³ Senior Lecturer, Department of Political Science and Institute of Public Policy and Administration (IPPA) University of Calabar, Calabar, Nigeria

changes in climate and the environment. Among the several widespread and serious consequences associated with global warming a few deserve our present attention: the indifference and irresponsibility of governments towards it and its potential to perpetuate conflict among nations leading to the legacy of conflicts/wars characterizing recent history. Official acknowledgement of global warming/climate change Despite the report of global warming in 1896 (i.e. 113 years ago) by Svante Arrhenius, whose work was preceded by another colleague (Joseph Fourier in 1827 (182 years ago), official acknowledgment of the destructive phenomenon was disregarded by politicians until recently when reports by Intergovernmental Panel on Climate Change (IPCC) became more alarming. It was only in a few countries such as the European Union and a few others that carbon reduction programmes including sustainable (renewable and efficient) energy programmes were implemented (Droege 2008: 1-14). The UN Secretary-General, Ban Ki-moon acknowledged the threats posed by climate change and energy crisis to global security and peace. This is especially true for regions which have a rather longer experience of conflicts and where relationship with neighbours had collapsed and are not aware of the accumulative effects of global warming and its consequences (Ki-moon, 2007: xvi).

Irrespective of the UN's acknowledgment of the problem, it has been difficult to muster the political will of global leaders to tackle the problem. This point was clearly made by former UN Secretary-General Kofi Anan who stated the world lacks leadership in the environment (including climate) sector (cited by Ingwe 2008). Another dimension of the poor political leadership worldwide is the tendency of some countries to resort to previous historical disappointments, directly or indirectly, with their peers or counterparts in the development process to forge national policy strategies that do not strive towards achieving optimum results in terms of mitigating and adapting to climate change to the global benefit by aiming to drastically reduce their green house gas (GHG) emission. This has been the case in the global climate change response behaviour of the European Union (EU), on the one hand, and the USA and between the rest of the world (nations of the advanced North which have joined/endorsed the global mechanism (the Kyoto Protocol) for tackling global warming and the USA, on the other.

This article examines differences in the nature of response to global warming taken by China, a rapidly industrializing developing country, as a result of her perception and consideration of the attitude of the USA towards the global climate change/carbon emission reduction. This undertaking is justified for several reasons. Under the context of the failure of the advanced industrialized countries to fulfill their promise to deliver aid (except the Scandinavian/Nordic nations) and the increasing manifestation of climate change impacts On Africa (such as the flooding of about 20 Africa countries in 2007 alone) global response to the crises is urgent and imperative in the wake of the complication o the continent's problems. It is apposite to examine the response to climate change) by countries which are the greatest emitters of Green House Gases (GHG). The USA and China fit the case study approach due to their representativeness of the advanced and developing worlds in a rapidly changing world. The Intergovernmental Panel on Climate Change (IPCC) has stated the unequivocality of the contribution of anthropogenic forcing as the cause of global warming: revealing that earth surface temperature increase since 1800 but more rapidly between 1970s and the present (about 1.7⁰F) (www.epa.gov.250inafrica:12).

The Problem

As elaborated later, the global effort to reduce carbon emission initiated in 1997 in Kyoto (Japan) involved 38 industrialized countries which committed themselves towards achieving a target of eight percent GHG emission reduction by 2012 compared with their 1990 levels (European Commission 2009:18). Although developing countries were expected to

cooperate in the emissions reduction effort, there is a gap in information and knowledge of their contribution to the programme. The case of China deserves careful analysis for several reasons among which deserve mention here. China possesses a large proportion of the global population, has been experiencing high rhythms of economic growth due to rapid industrialization and technological development and has more recently attained a globally enviable position of a national economy that was capable of lending the USA funds required for prosecuting the stimulus (financial) package designed for resuscitating the economy after the global financial meltdown and the economic recession within the last part of 2008 until the present. Ruefully, report on global effort to address global warming still concentrate discriminatively on the advanced countries of the North irrespective of recent advocacy for the restructuring of the global economic and political order which led to the expansion of the G8 nations to create the new G20 nations by including other countries which are experiencing promising signs of contributing to revamping the global economy and reducing its vulnerability to the financial and economic crises which recently devastated the USA and several other G8 economics. Despite China's rising political and economic status response to climate change is poorly understood.

Purpose

The purpose of this paper is to highlight the potential role which China-a rapidly industrializing and economically rising economy-to the global efforts to reduce GHG emissions.

The specific objectives are: To show the evolution of the current effort to address global warming through the mechanism of the Kyoto Protocol;

To describe the role that the USA played in the global effort to reduce GHG emission;

To highlight the opportunities presented by the new Obama administration of the USA for promoting a more acceptable framework for accelerated reduction of GHG emission.

To show how China and the rest of the world should adjust their paradigms of international relations to fit the new thinking and actions in Washington D.C as a better way of achieving sustainable development.

In the remainder of the paper, we describe the problem of global warming (climate change) in the second section to provide a basis for understanding the arguments. We follow this up by presenting relevant theory in the nexus of international relations aiming to resolve problems that concern several nations. These include: catastrophe theory, which sets the tone for understanding the context of widespread catastrophic consequences that scientists predict will come with the ongoing and increasing global warming. Brinkmanship theory has characterized previous crises involving the USA and its counterparts and its legacy might be determining the recent strategy of the US response to the Kyoto protocol. We introduce the theory of neoliberalism due to its variable connotations as used by the advanced countries and the contrasting view of the developing world. Moreover, the response of nations to global warming or carbon reduction is determined by their economic circumstances and the consideration of the economic benefits perceived to derived from specific political action(s). Neoliberalism captures these political and economic dimensions. We present global response to global warming in form of the Kyoto Protocol, and the attitude of the USA towards its ratification/enforcement and the distinctive achievements of the European Union under its framework in section three. In section four, we show the opportunities presented the new

Obama administration for leveraging the global effort to reduce GHG emissions. Here too, we review the actions taken by the Obama administration towards fulfilling his promise to accept climate science and lead the global campaign to reduce GHG emission.

In section five, we review recent changes in the Chinese economy, industry, and position regarding the approach of the US and the advanced nations to global GHG emission reduction. Based on the paradigmatic shifts in the international relations style of the Obama administration, we conclude the paper by urging China and other nations to place global interest as equal pedestal as country by more honestly.

Climate Change: The Consequence of Global Warming.

This phenomenon refers to steady and accumulated build up of six major (greenhouse) gases GHG dominated by carbon dioxide (CO₂) in the atmosphere over a long period has led to entrapment of solar radiation resulting from the formation of a kind of ceiling by the GHGs over the upper atmosphere thereby heating up the earth surface due to prolonged prevention of solar radiation from being reflected back into space. Its consequences over the years include the alteration of climate and weather events: their physical behaviour, dynamics of rainfall, temperature etc) and by extension environmental characteristics. It also involves changes in the mixture of atmospheric gas composition and earth surface temperature has fluctuated over the years. The consequence were initially considered uncertain but more recent findings from more reliable scientific studies show that they would involve widespread catastrophe including deforestation, desertification, poleward extension of vegetation and animal population, increases in sea levels and declining precipitation scientific evidence shows that CO₂ emission from fossil fuel burning contributes 80% of worldwide GHG emissions (Matthes 2006:293, Humphrey in Mclean and McMillan 2003: 225).

Although a consensus is yet to be reached, it is widely known that limiting global mean temperature increase resulting from global warming to two degrees Celsius above pre-industrial levels is mostly considered to be a reasonable point beyond which widespread catastrophic consequences of global warming on human society and natural system will occur (the European Council (no date) in Matthes 2006:295). A tolerable level of further global warming is put at 1.4^oC since the 19th century. Therefore, a mean long term global warming rate of 0.2^oC per decade, not more, is considered safe and must not be compromised (WGBU 2003 and 2004 in Matthes 2006:295). Based on various global warming reduction parameters (climate windows) and various alternatives for GHG emission reductions strategies, it was proposed that a climate policy targeting stabilization of GHG concentrations at 440 parts per million (ppm) to 450ppm (equivalent to stabilization of CO₂ concentrations at 350 to 400ppm represents an ambitious climate policy (Meinshavsen 2005). This proposal represents a GHG emissions reduction by about 50% by 2050 compared to 1990 levels (Matthes 2006:296). The intergovernmental panel on climate change (IPCC) has demonstrated that human activity mainly fossil fuel use is incontrovertibly responsible for increasing GHG emission leading to global warming/climate change. Using the GHG emission; profile of the past century, there is likely to be an average global temperature increase of between 2 and 4.5^oC by the year 2100 compared to 1990 levels (IPCC 2007, 2001 in Byrne 2008:27). Scholars have engaged in frightening number game projecting the scale of consequences that will arise from climate change in future. As many as 200 million people could be displaced by monsoon systems, rainfall regimes, severe droughts, flooding when climate change reaches an advanced stage in about 2050 (Myers 2005 in Oli 2008).

Another popular study reveals that while most coastal and low lying parts of the world would suffer widespread damage and economic losses, Africa is the most vulnerable of all regions of the world. It recommends a GHG emissions reduction at least 80% by all countries to avoid the catastrophe (Stern 2006).

Catastrophe Theory Presents a Good Framework for Understanding Climate Change

The manner in which US Governments under President George W. Bush and to some extent Bill Clinton failed to cooperate with the global movement to respond to climate change and the predictions of doom and worsening impacts of the environmental crisis. The theory offers a suitable way of systematically classifying abrupt disruptions in conditions of stability thereby enthroning chaos. The theory has been employed for analyzing a wide variety of phenomena studied by both physical and social scientists from the freezing of a liquid to the disintegration of an empire that was hitherto a formidable socio-political entity, or violent action of inmates of a prison or the bending and breakage of solid objects such as a metal. Although its use engendered controversy by the mid 1970s, it enjoyed popularity in the social sciences in the early 1970s through its employment Christopher Zeeman and colleagues, after its creation around the mid 1960s. The popularity of the theory among non-mathematicians has been attributed to two major reasons First, it produces more easily comprehensible general ideas of spatial intuition derived from more appropriate qualitative methods contrasted to quantitative approaches used by mathematicians to analyse surfaces and topology. Secondly, the theory is amenable to use for explaining in a discriminatory way only circumstances that have deviated or changed radically in a discontinuous way from an original initial conditions that were considered to pose problems for easy explanation using available scientific methods that are based on Newtonian paradigm and characteristic and peculiar to social and political events. Despite the popularity it enjoyed in political science scholarship within the decade (1965-1975) and perhaps until the present, the catastrophe theory is yet to attain a more respectable status in the discipline. Its use has been adjudged to be more successful as a heuristic instrument than for detailed studies. However, its popularity is beneath the level achieved by its counterparts e.g. game theory, its rather transient popularity within a decade has been likened to chaos theory its other counterpart (Jones in McLean and McMillan 2003:66-7). The suitability of catastrophe theory to the analysis of climate is in the way global warming has already been acknowledged to be characterized by abruptness, suddenness and danger.

The way its impacts trigger various consequences that by themselves lead to disruptions in several sectors such mass migration of people in search of more livable environments compared to their original usual places of habitation and work make it suitable for analyzing predictions about widespread catastrophic events such as extreme weather events (flooding, drought, storms and so forth (Helmuth et al. 2007, Meyers, 2005, Stern 2006 etc). Climate change in its own right triggers catastrophic events in the physical environmental subsystems (atmosphere, hydrosphere, and lithosphere) and also catalyses catastrophic decisions within the social (human) and political systems a matter we turn to presently.

The legacy of “Cold War” brinkmanship: According to Geoffrey R. D. Underhill, the term brinkmanship refers to the tendency of the superpowers during the “Cold War” era to deliberately cause a crisis associated with accelerating a “potential nuclear holocaust”. This habitual tendency smacking of “going to the brink” (of civil action) was aimed by either of the two superpowers to stampede its rival to concede on the issue of military supremacy. Some examples include; the 1961 crisis over Berlin-the former and current capital city of the United German Federal Republic and the Cuban Missile crisis of 1962 i.e. only one year after the former (1961) crisis. It involved USSR’s installation of nuclear weapons in Cuba, near Florida, US and US demand that the Russians clear-up the offensive threats. These crises have been documented elsewhere and do not bear repetition here due to the need to concentrate on our present task and title/issue (see Peter Byrd in McLean and McMillan 2003:129-131 for detailed account of the Cuban Missile crisis). Brinkmanship also describes other political “gamesmanship” actions that are of high stakes which are capable of affecting

international politics and relations among sovereign states (Underhill in McLean and McMillan 2003:53).

The theory/concept is relevant in this article due to the way it captures the way US Governments under presidents George W. Bush and Bill J. Clinton a topic described elsewhere in this paper. The way the problem of global warming has become inextricably interrelated to the financial crises and the economic recession of the late 2008 up to the present beckons for other theoretical and conceptual frameworks that capture these twin crises.

The Relevance of Brinkmanship of The Cuban Missile Crisis (CMC)

The CMC was regarded as a paradigm case in “crisis management” in the West because it represented a novel deployment of diplomatic tactics by the US to resolve the crisis which was inexorably heading towards a painful nuclear war between the defunct USSR and USA with Cuba and the rest of the world bearing enormous brunt. Its high points include the way the US fine diplomatic action (or response) to the adamancy and belligerence of the Russian leader: Nikita Krushcher over withdrawing nuclear weapons installed in Cuba yielded beneficial results. The potency of the US action was credited to the use of brinkmanship (the threat of war) to cause the opponent to acquiesce and also the inclusion of an allowance of a last resort for the opponent to prevent the escalation of disagreement of a very serious kind (Underhill in McLean and McMillan 2003:53). The theory of brinkmanship might have been a legacy that appealed to President George W. Bush and his supporters but is inappropriate as a strategy to apply to the problem of global warming which is irreversible in a world that has attained a relatively higher degree of awareness deriving from advanced scientific and technological methods of producing and disseminating/communicating information of the type used by Barack Obama in prosecuting/managing his presidential campaign.

Neoliberalism, Postneoliberalism and Climate Change

The recent global financial crises of the last quarter of 2008 which rapidly degenerated into a global economic recession has raised to high pedestal the theory of neoliberalism. There is increasing interest in the potency and value of the theory which is being held responsible for the crises. The following account will demonstrate the globalization of the theory, through its application in various senses/meanings in both the advanced and developing worlds. The way the theory covers both advanced and developing worlds makes it suitable for analyzing the way China has responded to the USA’s approach towards managing the global warming problem.

Andrew Hurrell and Laura Gomez-Mera have provided a comprehensive definition of the term by highlighting its different meanings. The term has been applied in the field of academic international relations as a theoretical approach developed to analyse institutions thus earning it other names: neoliberal institutionalism or regime theory. Created in the mid 1990s, this strand of the term was developed as a response to the non-realist paradigm involving the demonstration of the possibility of realizing the goals of international cooperation based on the principles of non-realism. In pursuing this goal, the cooperating states are considered to be rational, unitary actors interested in maximizing their utility within a rather anarchic international system. The neoliberal institutions are regarded as effective mechanism for facilitating cooperation among the states involved through deliberate reduction of uncertainty, articulation of issues of common interest to the cooperating states, monitoring the conduct of the states and promoting appreciation of the benefits of reputation among the parties involved. Under the context of the absence of a sovereign authority in the international arena, a problematic situation that causes frequent conflicts among states,

cheating and defection among states, the foregoing measures are regarded to be capable of providing solutions.

Theorists of Neorealism have challenged the arguments of the Neoliberals/institutionalists by emphasizing the gains of relative gains as superior to those derivable from the absolute gains. The Neorealists argue that powerful states create institutions that they customize to pursue interests/goals of their own states while relegating issues that concern other states to the background and treating them as impediments.

The second meaning of neoliberalism refers to a set of policies related to market-liberal economic system. There are two meanings of the term under this family; corresponding to the perceptions of the advanced countries and developing countries. In the advanced countries, neoliberalism is associated with Thatcherism (after the economic and political strategies applied by former British Prime Minister: Margaret Thatcher). It emerged as a challenge to Keynesianism, an economic policy approach associated with the economist John Maynard Keynes.

Neoliberalism is used in developing countries to challenge the infamous national development strategies of import substitution industrialization applied intensively from 1945 to the early 1980s. Here the term is commonly tied to the Washington Consensus characterized by implementation of privatization and deregulation, liberalization of trade and financial mechanisms, curbing of the role of states in national economic processes and institutions, emphasis on foreign direct investment. Additionally, the term refers to the structural adjustment programmes (SAP) that were notoriously implemented by international governmental organizations such as the international Monetary Fund (IMF) and the World Bank. Some (including anti-globalization movements) have used neoliberalism to describe the globalization of capitalism representing an economic ideology advocated by the advanced countries. Although the various meanings of neoliberalism are related, its economic meanings are perceived to have remained rather imprecise and general (Hurrell and Gomez-Mera in McLean and McMillan 2003:368). Postneoliberalism has most recently emerged as a challenge to the economic impasse presented by the financial and economic crises devastating the global economy. Scholars and activists contributed 15 articles examining various facets of postneoliberalism: its analytical value, promises to bailout crisis ridden economics, bifurcations, relationship/differences with capitalism, counter hegemonic potential, value to biodiversity, food security and women peasants and its legacies in different countries/continents (development dialogue Melber 2009:212 pp +4).

Global Responses to Climate Change

The United Nations Framework convention on climate change (UNFCCC) represents the most serious global response to the problem of global warming because of the measures it has created to manage the debacle. The convention was adopted in 1992 at the Earth Summit held in Rio de Janeiro (Brazil). Its principal objective is the “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human-made) interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner (Detailed information is available at the UNFCCC Secretariat website at: <http://www.unfccc.int/resources/docs/converg/pdfcitedinUNDP,UNEP,WorldBank&WRI2003:240>).

The Kyoto Protocol

This refers to a protocol established in a Japanese city called Kyoto in 1997 by the third session of the conference of parties (COP-3) including 38 industrialized countries to the

UNFCCC. It stipulated that when ratified by 55 countries would represent the commitment of advanced countries to reducing their collective emissions of six key green house gases CO₂, CH₄, and so forth by 5.2% on average by 2012. The emissions reduction was expected to be at least five percent lower than 1990 levels by a deadline which initially ranged from 2008 to 2012 compared to the emissions levels that would be expected to be achieved 2010 devoid of applying emissions control devices. The target emission of the protocol was equivalent to a 30 percent cut. It represents an agreement to reduce emissions and to promote adaptation to future climate change impacts by both developed and developing countries, their reporting of information on their national climate change programme and inventories; promotion of technology transfer; scientific and public research cooperation and promotion of public awareness raising, education and training programmes. To cause it to come into force, ratification by 55 parties to the convention representing parties that contribute 55 percent of CO₂ emissions in 1990 by Annex 1 parties (describing industrialized nations) was required. The ratification of the Protocol by 94 countries represented only 37 percent of the Annex/countries emissions was attained by September 2002. See further information in a Guide to the climate change convention process, available online at <http://www.unfccc.int/resources/process/guideprocess-p.pdf> (UNDP, UNEP, World Bank & WRI 2003:240). In February 2005, the Protocol came into force following its ratification by Russia and other countries. The 5.2% average emissions reduction was far below the 60% target recommended by scientists of climate as a means of avoiding further dangerous global warming which they have severally warned would lead to widespread catastrophic consequences for the earth's climate and environmental systems (land, water and atmosphere).

US Contrivance of Intransigencies and Frustration of the Kyoto Protocol Ratification

The USA is a major driver of carbon emission in the world (with a total CO₂) emissions in 1999 of 5,584.8 million metric tonnes (24.1% of global total) representing 15.2 percent change since 1990 and per capita of 19.9 metric tones per person in 1999 representing 4.7 percent change since 1990 levels. These were the highest carbon emissions worldwide. For China, the total CO₂ emission in 1999 was 3,015.3 (29.6 percent change since 1990) while the per capita CO₂ emission was only 2.5 (i.e. 16.6 per cent change since 1990) (UNDP, UNEP, World Bank and WRI 2003:258-9). Only one year later, the total CO₂ emission of the US rose to 5,762.1 million metric tonnes representing 24.11% and 17.9 percent change since 1990 China's CO₂ emission in 2000 was a total of 3,473.6 million metric tonnes i.e. 39.3% change since 1990 while her per capita CO₂ emission was 2.7 tonnes per person in 2000 (i.e. 26.2% change since 1990 (UNDP, UNEP, World Bank and WRI 2005:204-5). Contrary to expectations of the USA to lead global response to reduce carbon emissions that it contributes enormously to, US Governments under Presidents George W. Bush and Bill Clinton failed to cooperate with global efforts aimed at tackling the world's greatest threat.

The way the US posed impediments to the global efforts to reduce carbon emission could be better understood by reviewing, albeit briefly, the crucial intergovernmental meetings that have been organised to mobilize support towards transforming the Kyoto Protocol into a ratified treaty thereby empowering it with legal instruments to command or effect enforcement. An account of global warming given by Mathew Humphery provides a foundation for doing this. The first intergovernmental meeting held in the Hague in November 2000 ended in disarray following the European Union's (EU) disagreement with the USA especially over the insistence of Americans that forests and vegetation must be included in the list of "Carbon sinks" and should be used in measuring the level of their emission of carbon through fossil fuel use or burning. Owing to the uncertainty, transiency and instability of the carbon storage capacity of vegetation, the EU feared that the use of

vegetation as carbon sink in the agreement would create loopholes that the Americans would exploit to cheat. On his inauguration, President George W. Bush promptly caused the unilateral withdrawal of the US from the Protocol claiming that it had the capability of severely damaging its economy. The US failure to cooperate with others in this and similar carbon reduction efforts represents one of the most serious impediments to sustainable development of the world-considering that the US emits the largest quantity of CO₂ worldwide.

The second intergovernmental meeting on climate change held in Bonn (Germany) in July 2001 assembled 186 countries created a treaty out of the Protocol. Unfortunately, this was achieved only when unnecessarily huge concessions were granted to Canada (the US North American neighbour aiming perhaps to break the gang-up in the region), Australia, Japan and Russia regarding the acceptance of forests as “carbon sinks” and the instrument for enforce any agreement reached. These concessions are perceived to represent drastic reduction of the effective size of the initial emission reduction proposed at 5.2 percent on the 1990 levels to as low as between 1.8 and 3 percent (Humphrey in McLean and McMillan 2003:225-6).

More recently, in late 2008, another intergovernmental meeting on climate change held in the Indonesian city of Bali. It has been credited with achieving a roadmap for pursuing the goals of global carbon reduction.

Sadly, the Bali climate change meeting missed the participation, directly or indirectly of Barack Obama, who at the time was still campaigning for the US President but had announced that his administration would acknowledge the climate change problem, scientific evidence and also tackle it seriously. Therefore, the efforts of the Obama administration to dissociate from climate change science denial as a means of cheating, frustrating global climate change mitigation and adaptation efforts deserve attention here. Before undertaking that, it is apposite to examine the achievement of the EU in the area of carbon reduction based on the Kyoto Protocol as mechanism. The obstinacy of US Governments, especially under President George W. Bush, in applying brinkmanship while ignoring the global effort in the Kyoto compelled “civil action to shrink the carbon footprint in the US (Byrne et al 2008:27-53). It is apposite to consider the distinctive contributions of the European Union towards global carbon reduction.

What Has The European Union (EU) Achieved in The Kyoto Protocol?

A recent heartwarming report that “Brussels draws closer to Kyoto” explains that the EU has almost achieved its targets regarding the fulfillment of its greenhouse gas emission reduction obligations as stipulated in the mechanism or agreement. Citing the European Environment Agency (EEA), recent reports show that the EU’s GHG emissions declined by 0.3% between 2005 and 2006 to a level (of) 7.7% below the 1990 level. Two reasons were given to account for the cheering record. First, certain chemical factories had recorded declining production. Second, the mild weather experienced in 2006 led to reduced use of heating fuel. Despite increases in major emission in Finland and Denmark as a consequence of rising coal consumption, the EU-15 at a regional level deserve commendation for leading the global quest for carbon (emission) reduction. The 12 new EU member states were reportedly poor carbon emission reduction performers. Whether the heartwarming reports from parts of the EU will be sustained in the future is yet to be seen (European Commission/research*eu 2008:18 citing <http://reports.eea.europa.eu>).

The Distinctive Opportunities of The Obama Administration for Global Carbon (GHG) Reduction

Despite the enormous dust raised by the global financial meltdown and economic recession which occurred in quick succession within the last part of 2008 in the USA and the way these crises beclouded the campaign and inauguration of President Barack Obama of USA the sterling credentials, qualities and commitment of the new administration towards carbon reduction remain clear and discernible. Irrespective of the enormity of these financial and economic crises and their capacity to dampen a revolutionary spirit, the firmness and commitment of President Obama to carbon reduction remains indefatigable. Owing to the fact that opportunities have everywhere and every time proven to be sublime, difficult to perceive and exploit, there is need for greater and elaboration and here to make them visible.

Perhaps the most promising opportunity of President Obama in global carbon reduction might be credited to his pedigree, association and paradigms and worldview. Obama's pedigree in carbon reduction campaign dates back to his anonymous days when he was either a quieter Illinois Senator, community mobiliser, editor of the prestigious Harvard Law Review (Journal) or voracious researcher when he took interest in climate change science and campaign. This has been documented and does not bear repetition here. Obama's association with climate change science/campaign is well illustrated with the roles played by world renowned climate change campaigners. Perhaps the most noteworthy was Obama's introduction by the sustainable development/climate change Nobel Laureate and creator/narrator of the environmentally friendliest film: *The Inconvenient Truth*: Al Gore (former Vice-President of the USA during the Clinton regime) as the presidential candidate of the Democratic Party in 2008.

What is most valuable about Obama's paradigms generally is their radicality, novelty in the political arena, and their deep intellectual foundation. The political arena in most of the world has been entrapped/imprisoned in conservatism, status quo thinking, policy and action. Yet Obama has differed. Obama's development and energy production and use paradigm is that the USA and the world requires renewable and efficient energy resources to achieve greater sustainable development. He has argued that sustainable energy and environmental programmes promise more jobs for Americans and has invested impressively in the green technologies on inauguration only in January 2009.

Obama's worldview is harmony and peaceful coexistence between USA and other counties of the world. To Cuba one of the US longest political foes, to Iran, to Korea and several other nations, President Obama has offered and is pursuing international cooperation and relations as equal partners.

To the climate change group of nations generally and especially those which have ratified the Kyoto Protocol, President Obama offered to acknowledge the scientific evidence available and lead in the global campaign to drastically reduce carbon emissions as a means of achieving sustainable development. Obama's worldview in this regard was succinctly captured in his inauguration speech thus:

“The world will remember a person not on the basis of the damage/harm done.... But on the edifices she built...”

The Impressive Actions of Obama Administration on Carbon Reduction

Development scholars are declaring that “the colour of stimulus goes green” (Robbins et al 2009). Robbins and colleagues (2009) reveal that governments across the globe have allocated over USD43billion in fiscal stimulus focusing on key climate change reduction investment themes with the USA and China in the lead worldwide. While the USA invested \$973.0, i.e. US\$186.0 (USEESA) and US\$787.0 for USARRA, China invested: \$586.1 (Robbins, Clover, and Singh 2009).

Perhaps more heart warming is the US' recent joining of the membership of the International Renewable Energy Agency (IRENA). Despite IRENA's recency, the global environmental sustainability community, including civil society and non-government organizations are praising the Obama administration for its climate friendly programmes and policies. For example, in a press release, the World Wind Energy Association recently praised the recent policies of President Obama as a good response to climate change (World Wind Energy Association, 2009). For example, Volker Thomsen, Chair WWEC2008 Board Member World Wind Energy Association and a member of: the World Council for Renewable Energy (WCRE), Eurosolar in Germany, and Co-founder WWEI World Wind Energy Institute Denmark, revealed happily that most recently the USA together with Australia joined the membership of the International Renewable Energy Agency (IRENA), whose membership as in June 2009, is nearly 100 countries (<http://volkerthomsen.com/irena-the-international-renewable-energy-agency/>, personal communication via email to WWEA network, 13 June 2009). The flourishing IRENA generally and the joining of its membership by the US is being commended by the sustainable development and energy community worldwide. Additionally, Steve Bouchard recently reports good news that the US House of Representatives has just passed a landmark bill that was designed to propel the nation toward a clean energy future.

The debate moves on to the Senate where opponents of the clean energy proposal are expected to pose obstacles to the bill's passage. However, clean energy advocates, whose momentum has been raised are resolute and promise to mount pressure in order to re-enact the recent success recorded in the lower federal legislature in the US Senate. Today, we have something to celebrate. Bouchard notes: "For the first time in decades, we have taken bold action to help solve the climate crisis" (Personal communication to the World Wind Energy Association, WWEA, networkers, 27 June 2009).

China is a signatory to the Kyoto Protocol. Her CO₂ (International Dollars) of GDP declined from 1,523 metric tonnes in 1990 to 949 metric tonnes in 1996 (UNDP, UNEP, World Bank and WRI 2001:282) while the CO₂ emissions in 1999 was 3051.1 and 25.6 percent change since 1990. the increasing GHG emission results from rapid industrialization/economic activity in the world's most populous country with over 1.2 billion in 2002 (UNDP, UNEP, World Bank and WRI, 2003: 278, 258).

China's Response to Climate Change and US Strategies

The analysis of China's attitude to global climate change and her evaluation/assessment of the role played by the USA must be based on specific premises. It is important to accord China the status of a leading country in the developing world-a status which she gained several years ago when her economic growth rate shot up beyond the expectations of the world-especially the industrialized/advanced countries which foisted development models based on the Washington Consensus on the developing world based solely on their own economics histories and development experiences. More recently, China's global leadership role rose higher when it become a lender to the US and donor to Africa based on terms of friendship without the rather stringent conditions that contradicts the insistence of the Bretton Woods institutions and International Financial Institutions (IFIs) on the notorious "debt sustainability framework" describing stringently formulated documents and conditions. In this regard, china is commanding greater respect and following. This is important for the expectation of developing countries to join the global carbon reduction efforts. Additionally, China has been a candidate for a position in the membership of the UN Security Council for quite some time. Therefore, China's response to the global climate change and the role/attitude of the US to the campaign will certainly influence most developing countries especially those which have benefited from more favourable development assistance and

expect same from the new economic and political force represented by China (Bayer 2009: 99).

It deserves statement that while China's economic and political might is not the main issue in assessing her response to climate change but it provides the foundation for their international relations policies and strategies.

The foregoing position is likely to be true also of 12 other "sustainable growth" countries which together with China have emerged as achieving economic growth rates of seven percent or higher within the past 25 years. They include: Botswana, Brazil, (China), Hong Kong, Indonesia, Japan, Korea, Malaysia, Malta, Oman, Singapore, Taiwan and Thailand. China's achievement of the rapid economic growth rate has been credited to the decision of her leader (Teng Hsiao Ping), after visiting to learn from the glamorous financial centres of Malaysia and Hong Kong in 1979, to avoid the strategy of undertaking the "great leap forward". On the contrary, he preferred to take the approach of "gradualism" while retaining existing communist institutions but reformed them by injecting into them appropriate doses of market structures and processes (Spence 2008 in Bayer 2009: 91).

The Global Carbon Reduction Effort Requires Respectable Fresh Ideas in China and Sustainable Growth Countries

By achieving impressively high economic growth rate (7%+) by applying strategies different from the neoliberalism prescribed insistently by the proponents of the Washington Consensus, China and its peers clearly demonstrated their originality and potency of their thinking in terms of achieving their economic and social development objectives. This point was acknowledged in "The Growth Report" written by academics, World Bank staff, UN officials and similar professionals when they stated that the era is over when the Washington Consensus was regarded as the most potent and effective route to national development. They report that the achievement of the sustainable growth countries was the result of the application of local resources/contributions, non-conventional strategies, regard for lessons learnt from practical experience of implementation of new ideas considered as promising by endogenous/indigenous planners and citizen participation in the process of fashioning appropriate strategies that befit local circumstances. This contradicts the insistence of the Washington Consensus on the existence of a "grand scheme" for pursuing development in the global South (Rodrik 2008 in Bayer 2009:92).

China's Leading Investment in Green Technologies

Very recent evidence shows that China is one of the leading investors in green technologies (including renewable and efficient energy sources and environmentally sustainable programmes). Only the USA has invested more money into green technologies than China has recently.

China Needs Not/Will Not be Hostile to the USA at this Time

Several factors justify our optimism and suggestion that China's response to the global climate change campaign will remain responsible, ignore disappointments exhibited by any country (be it the USA or others). Apart from her present rising economic and political profile, China has charted a refreshingly impressive diplomatic style involving her proposition of friendship rather than the typical model of diplomacy that is prone to brinkmanship.

China's recent tremendous investment in green technologies demonstrates her appreciation of the problem of climate change and the urgency and imperativeness of carbon reducing development approaches.

The USA under the Obama administration is vigorously implementing a new international relationship model (on equal basis) with Iran, Cuba and wooing the cooperation of countries belligerently, pursuing nuclear proliferation programmes which President Obama is discouraging with persuasive commitment.

EU-15's impressive achievement of its Kyoto Protocol targets provides a lesson which China ought to emulate rather than look up to any disappointments from the USA and/or other countries.

China must be aware of the enormity of the adversity that would befall her huge population (The world's most populous country) whose 1.22 billion people in 2002 was projected to rise to 1.5 billion in 2025 (UNDP, UWEP, World Bank and WRI 2003:278). In the event of escalation of climate change impacts, there is no other country that would suffer as many casualties as Chinese within and outside China.

Conclusion

Although the global climate change/carbon reduction strategies under the mechanism of the Kyoto Protocol (evolved in 1997) suffered a setback through the withdrawal of the US administration of President George W. Bush, recent phenomena portend favourable international cooperation/relations. Almost coincidentally, two major impediments to the Kyoto were neutralised within the short period between August 2008 to November 2008. First, the collapse of the US real estate, and financial institutions and rapid recession of the economy and its reverberation worldwide has been unanimously interpreted as the collapse of the "neoliberalism" (Washington Consensus) which has had a long history of about 30 years and engendered faulty economic development thinking and strategies. The emerging postneoliberalism involves popular endorsement of increasing investment in green technologies which represent carbon reduction measures. This has provided a point of agreement among a growing number of countries led by the USA, China and a host of others.

Secondly, the election of Barack Obama in November 2008 and his policies since inauguration in January 2009 seems to be indicating an end of the 47-year era of employment of diplomatic brinkmanship by US Governments. Evidence of reversals of USA's diplomatic extremism with Cuba, Iraq, Iran and so forth seems to be mounting.

Specifically, Obama administration is fulfilling his promise to acknowledge climate change science and lead the global campaign to reduce carbon emission.

The recent changes have enthroned a new slate for carbon reduction by fresh resources from the USA and China to complement the achievements recorded by the EU under the Kyoto Protocol.

It must be acknowledged that global awareness raising of global warming has been the responsibility of civil society and non-government organizations, these range from international government organizations supported ones such as the IPCC the World Council for Renewable Energy (WCRE), World Wind Energy Association, WWEA etc, to national ones like "the Royal Society", and so forth.

Recommendations

We recommend that President Obama's leadership of the global carbon reduction effort should be realized by pushing for the upward revision of the target of carbon reduction (which was reduced drastically from 5.2% to between 1.8 to 3 percent as a bait to get the ratification of the Kyoto Protocol by Canada, Australia and so forth) after ratifying the Kyoto Protocol. That would be the best fulfillment of the global leadership promised by Obama under the context and history of unnecessary compromises that hurt the carbon reduction effort.

Considering the excellent track record of environmental and energy NGOs in mobilizing global and national response to the climate environmental change crisis, the role of ENGOs in catalyzing increasing appreciation of the enormity of the crisis to US Government functionaries and civil society cannot be overemphasized.

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