

## THE COPENHAGEN CLIMATE CHANGE SUMMIT (2)

By Frederick Baffour Opoku

### **Challenges:**

The greatest challenge is for the actors to commit to a new and strict legally binding emissions reduction agreement in Copenhagen that will replace the Kyoto Protocol whose expiration date of 2012 is fast approaching. There ought to be an agreement in place at all cost for the centre to hold, with the view to check emissions reductions, if the earth is to avoid any climate catastrophe.

**Scientific evidence:** The scientific evidence today overwhelmingly indicates that allowing the emission of Green House Gases (GHG) from human activities especially, to continue unchecked, constitutes a significant threat to the well – being and continued development of contemporary society.

The knowledge that human activities are influencing the climate gives contemporary society the responsibility to act. It necessitates redefinition of humanity's relationship with the earth. For the sake of the well-being of society, it requires the management of those human activities that interfere with the climate.

Recent observations also shows that GHG emissions and many aspects of the climate are changing near the upper boundary of the Inter Governmental Panel on Climate Change (IPCC) range of proportions, which have the potential to lead to dangerous climate change.

Many key climate indicators are already moving beyond the patterns of natural variability which contemporary society and economy have developed and thrived.

These indicators include global mean surface temperature, Arctic sea ice extent, ocean acidification, and extreme climatic events. Scientists contend that with unabated emissions, many trends in climate will likely accelerate, leading to an increasing risk of abrupt or irreversible climate shifts.

For instance, extreme weather has brought about droughts, heavy precipitation, heat waves and the intensity of tropical cyclones, while drying has been observed over large regions such as the Sahel, the Mediterranean, Southern Africa and parts of Southern Asia.

Furthermore, scientific evidence points to increased melting of the large polar ice which contributes to the observed rise in sea level. Observations of the area of the Greenland ice sheet that has been at the melting point temperature, at least one day during the summer period shows, a 50 percent increase during the period 1979 to 2008. The Greenland region experienced an extreme warm summer in 2007.

Snow cover has also declined by 10 percent in the mid, high latitudes of the Northern Hemisphere since the late 1960s. IPCC new emerging data shows that losses from the ice sheet of Greenland and the Antarctica have very lately contributed to sea level rise from 1999 to 2003.

Scientists have also come to terms that the global carbon cycle is in strong equilibrium because of the input of carbon dioxide (CO<sub>2</sub>) into the atmosphere by fossil fuel combustion and land use change. Fossil fuels presently accounts for about 85 percent of total GHG emissions and

land use change for 15 percent, and have accelerated since 2000 to grow at about 3.4 percent per year.

Available scientific data recommends that to avoid dangerous climate change limits, emissions reduction from 2000 to 2015 should be between -85 to -50 percent, 2000 to 2020: -60 to -30 percent, 2010 to 2030: -30 to + 5 percent, 2020 to 2050: +10 to +60 percent, 2050 to 2080: +25 to +85 percent and 2060 to 2090: +90 to +140 percent. Source: *Synthesis Report - Climate Change – Global Risks, Challenges and Decisions Copenhagen 2009*, a book written by a team of 12 crack scientists.

Again, CO<sub>2</sub> emissions are responsible for two thirds (2/3) of the growth of all GHG radiative forcing. Without CO<sub>2</sub> sinks, which remove and store CO<sub>2</sub> from the atmosphere, the total CO<sub>2</sub> emissions since 1800 would have caused atmospheric CO<sub>2</sub> to increase from its pre – industrial era of 280 to nearly 500 parts per million (ppm).

These natural CO<sub>2</sub> sinks are vulnerable to climate and land use change and are highly likely to weaken in the future because of several effects including increased ocean acidification, ocean circulation changes, and water, temperature and nutrient constraints on land CO<sub>2</sub> intake.

These serious increasing evident risks to human health from climate change, underscore the potentially profound impact on earth's 'life support'. Furthermore, this vital sign should help motivate government action. Low income and geographically vulnerable populations are at greatest risk as these populations even though contributes little to the problem, yet incur much of the health risks.

The risks arise from direct stress such as heat-waves, weather disasters, workplace dehydration from ecological disturbances – altered infectious disease patterns – and disruptions of ecosystems on which humanity depends from population displacement and conflict over depleted resources such as water, fertile land and fisheries.

Also melting ice-sheets may mobilize ice-bound chemical pollutants into marine food web. Many specific impacts can be anticipated, or in some cases observed now.

**The dangerous climate change level (tipping point):** Further scientific evidence indicates that, the average global temperatures have warmed by close to one degree Celsius (almost 1.8 degree Fahrenheit) since the pre – industrial era. Research has shown that additional warming of about one degree Celsius, making way for a two degree Celsius rise, may be the threshold for dangerous climate change.

Modeling studies indicate that a two degree Celsius rise could cause 5 percent to 20 percent reductions of cereal grain yields in Sub-Saharan Africa, South Asia and South East Asia. This will significantly exacerbate under nutrition and adverse health outcomes, especially child physical and intellectual development.

In many urban populations, a two degree Celsius rise would increase the annual death rate from heat-waves by an estimated doubling or more. A two degree Celsius rise would also allow a 50 percent to 100 percent increase in the geographic range of potential treatment of (water snail-hosted) schistosomiasis in China, endangering many tens of millions of people.

Scientific evidence again, have reveal that recent experience from coastal Alaska shows that a one degree Celsius rise in water temperature has, by passing a threshold, enabled summer-long bacteria proliferation in shell fish and consequent gastroenteritis in consumers.

**Prompt measures:** Scientific evidence, again points to the fact that to forestall the anticipated two degree global temperature rise from occurring, a very high percentage of global emissions cut was needed to stabilize climate change and avoid catastrophe.

Scientists maintain that to have a chance of keeping global warming below the two degree Celsius mark, the industrialized countries which emit more CO<sub>2</sub> must make at least around 40 percent emissions reduction cut at 1990 levels by 2020, and make more cuts in the subsequent years ahead and hopefully meet the projected emissions reduction target to help stabilize climate change.

In the same vein, developing countries must also tackle their emission growth, but with financial and technological assistance from the industrialized countries, in line with provisions of the Kyoto Protocol.

**Slow commitment:** But as the situation stands now, the commitment levels of many industrialized countries to reduce emissions has not been to expectation and is between -15 percent, or far below and 20 percent by 2020.

Interestingly, countries under the European Union have a 20 percent reduction commitment but could potentially move up to 30 percent by 2020. The EU has been meeting its emission reduction targets for three years running.

Then another pressing challenge is how to get the United States, thought to be the largest emitter of CO<sub>2</sub>, but which is yet to ratify the Kyoto Protocol, and therefore has no legally binding emissions reductions target, to be brought on board negotiation and be a signatory to a new emissions reduction agreement.

In 2001, President George W. Bush rejected the Kyoto Protocol and also rejected the concept of mandatory emissions reductions. Since then, the administration has focused United States climate change on voluntary initiative to reduce GHG emissions. A major concern and conditional demand by the United States is the inclusion of China, which has no legally binding target under Kyoto, in a new agreement.

Canada (which signed the Kyoto Protocol later only after Russia has signed, a key demand it has been making) is said to have a three percent reduction commitment, Japan eight percent, and Australia 25 percent but with some preconditions as to how other countries will commit to.

**Extreme positions:**

There is also the issue of the extreme position taken by both developed and developing countries that could harm negotiations, if care is not taken.

For instance, there is the stance by the industrialized countries that developing countries must be included in any new agreement and legally binding targets set for them without which the industrialized countries will not append to a new agreement.

There is the argument that in particular, rich and large developing countries such China, India, South Korea, Brazil, Singapore and the Organization of Petroleum Exporting Countries like

Saudi Arabia, Kuwait, United Arab Emirates and others are all potential high emitters of CO<sub>2</sub> and must be included in a new agreement.

Developing countries, especially those in the vulnerable and least developed category, thought to be the most affected by climate change, have a common position that industrialized countries pay them compensation for being at the receiving end of the dangerous effects of climate change.

These countries have no same commitment of China, India, and the large and richest developing countries, and have a commitment of getting a 100 percent legally binding agreement in Copenhagen.

Apart from demanding compensation, such developing countries have proposed that the industrialized countries pay them between 200 billion and 300 billion dollars annually to fund projects intended to offset the effects of climate change. Developing countries will also not sign for a new agreement unless their concerns are properly addressed, coupled with the fact that China is very cautious entering into any legally binding agreement.

**Adaptation fund and REDD:** Central to the demands of the developing countries is the creation of a proposed Adaptation Fund by the UNFCCC to back the implementation of the financial mechanism prescribed by the Kyoto Protocol, which is intended to assist developing countries to adapt to climate change. This fund is expected to take off in 2020, the end of the emissions reduction commitment period.

The issue of the adaptation fund will be revisited in Copenhagen and given a new face. Key questions such as who is going to keep and disburse money, the institution of an adaptation fund board that reflects the UNFCCC system and which will ensure that developing countries have a say on how money should be used, will also feature.

An important issue to clarify will be whether the adaptation fund model should be used as the standard in sharing money that flow from other projects such as the Reducing Emissions from Deforestation and forest Degradation (REDD) facility.

The REDD idea which is also featuring high on the Copenhagen agenda is a facility to provide developing countries with financial incentives for reducing emissions from deforestation and forest degradation. The issue of who pays what to fund REDD is expected to come up for discussion.

Forest losses alone especially in developing countries contribute to climate change, as statistics show that acts of forest degradation and deforestation alone account for 20 percent of CO<sub>2</sub> emissions, explaining why the REDD issue is very important.

Many environmental activists think there is the need to get all countries duly and equally committed, in a new deal on emissions reduction. If efforts are not made to get all countries equally committed and care is not taken, then the commitment level of countries may vary and be in doubt, putting any emissions reduction agreement in danger.

There is also the school of thought that trade sanctions may work, with the disclosure that, there were on going discussions aimed at the institution of possible trade sanctions, side by side the boycott of products of countries who fail to comply with binding rules on emissions reduction.

**Optimism:**

The Copenhagen summit should mean a lot to Ghana since climate change is fast closing in on us. Recent happenings of negative implications to our economic and social lives such as the perennial annual flooding, acute supply of potable water, energy crisis, extreme weather events, etc, are all signs of climate change and the fact that we have to implement concrete strategies to adapt in all area of life. We need to show serious commitment.

Pitching camp with the entire global community in Copenhagen on an important and critical agenda of climate change, should present us with a good opportunity to state our case as we make significant input in the global efforts in arriving at a new emissions reduction agreement.

More importantly, Ghana, Africa and the rest of the developing world would need to be seriously working together by now to present a united voice and front in Copenhagen, and push their case forward, mindful that they are the hardest hit by the effects of climate change, even though they least contribute to the phenomenon.

There should be no doubt that climate change has come to add to our already worrying existing developmental challenges, coupled with the reality that the entire global climatic system is at great risk. Herein lies the relevance of the Copenhagen summit to bring the world together and deal with climate change on a collective efforts and the world cannot endeavour to fail.

There is hope after all, since global negotiations efforts aimed at reaching a new agreement under the aegis of the UNFCCC, are still ongoing.