



Agriculture and Climate Change: False Solutions to Formidable Problems

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Agriculture is the key to two major crises of the day, climate change and hunger. That also presents a valuable reason for why issues related to agriculture, must be addressed in the climate change discourse and international negotiations. However, it is matter of serious concern that most of the countries gathering at annual UNFCCC Conference, are not addressing the climate change and agriculture issues in the right earnest. Primarily there are two principal reasons why agriculture has been neglected in the climate change debates. One, that it is considered to be one of major contributors to GHG emissions. As a number of sources claim, agriculture contributes to 14% of the GHG emissions and with deforestation and land use changes, it amounts of more than 17% of the total GHG emissions. Secondly, it is so diverse and spread in all parts of the world that the knowledge leaders of today are not confident that it can be tackled. However, more important than these two is the reason that subsidy driven industrial agriculture in first world is not threatened. Rather, it is projected that production of wheat and rice, as well as coarse grains in the temperate climate will gain with the effect of rising temperature. However, for developing countries agriculture is not only about profit. It is not only an issue of food security but more than 50-70% of the population depends on agriculture for the livelihood in the countries in Asia, Africa and Latin America.

In 2009 the world's population in hunger rose to 1 billion. The number is huge and comprises one-sixth of all humanity, and current population of 6.8 billion. By the turn of the century the world population is estimated to reach 10 billion, of which more than 8 billion people will be living in developing countries. Even now, more than 75% of the population in chronic hunger lives in developing countries and primarily in rural areas, with most of them as small scale farmers. Agriculture is the principal source of not only food but also livelihood in these developing countries and has an inextricable link with food security, rural development and poverty. Therefore, by

neglecting and condemning agriculture as part of the problem, the majority of the population will be condemned to live in drudgery without sustainable sources of livelihood.

The IPCC FAR has estimated that food production in rain fed region in Africa could decrease by 50% by 2020. Yields of wheat as well as coarse grains are supposed to decline by 40% in India during the same period. Studies conducted already manifest changes in the rainfall pattern, reduction in precipitation, rising temperature and reduced outputs from agriculture in north and central Indian states. The fall out of the green revolution coupled with climate change trends have claimed lives of more than 150,000 farmers in India. Even in the states like Punjab and Haryana, which were respected as granary of India, agriculture is in complete disarray, ground water situation grave, and farmers in debt are witnessing mounting cases of suicides.

Proposals on the table

Let us now consider some proposals on the table in response to these grave issues. The Copenhagen draft seeks to include agriculture offsetting by making carbon sequestration a possible case for the CDM. Carbon sequestration as one of the most potential process to reduce GHG emission from agriculture has been debated for long in the climate change negotiations; however, in view of the Kyoto Protocol ruling that carbon sequestration and avoided deforestation will not be covered under CDM, there was not much progress despite both developing and developed countries asking for that. Both groups of countries have their own reasons to ask for including carbon sequestration in the CDM projects. While developing countries ask for financial and technological assistance from developed countries as a part of recognition of their historical emissions, developed countries now are also in the race of raising private funding for that. The ultimate result of allowing CDM in carbon sequestration will be that big companies aiming to earn carbon credits will be after the lives of small farmers having a tiny piece of land which might not be sufficient for supporting his family. He will now definitely be lured or coerced to sell his land to the company and turn overnight from a farmer to a beggar.

Bio-char is being considered as one of the methods for carbon sequestration. The UN Convention for Combating Desertification has already proposed bio-char, however, it did not find favor with many countries as it has serious impacts on fertility of the soil and significant contribution in acid rains. Though the Copenhagen Draft does not talk about Bio-char explicitly, but it is most likely to be pushed if the draft is approved. Another problem with the bio-char argument is that it requires ½ to 1 billion ha for carbon sequestration. The land required is 1.5 to 3 times the land area of India. Whether land can be available at such a scale, in itself a huge question. No till agriculture another proposal on the table, is yet to be proven worthy in the long run. Many countries are wary that no-till agriculture is proposed on the behest of major GM Companies. The proposals also promotes further intensification of livestock population, despite huge evidences available on livestock rearing is one of the most potent sources of GHG emissions. Today vegetarian campaign is one of the most powerful

and successful campaign of the strands of campaigns in the climate change discourse. The most disappointing proposal is that all the developed countries want all funding to come from market based mechanisms. In 2008 a record 4.9 billion tones of co2 emissions were traded registering an increase of 83%. Obviously, these carbon credits are being used to subsidize some of the most polluting companies of the North. We have already witnessed the inherent flaws of the market based mechanisms. Besides being iniquitous and unjust, market based mechanisms have done nothing to prevent the carbon emissions which have increased since 2005. Manifestly, current proposals for responses to climate change seek to maintain the unequal power relations and structures which must be reversed as demanded by the science, equity and justice.

Where does the solution lie?

There is a basic flaw in developed world's approach to agriculture. It looks at it as a commercial and industrial activity failing to appreciate the various functions that agriculture plays in poverty alleviation, strengthening local economy, providing livelihood and purchasing power in the hands of the communities. It cannot be considered only in terms of input costs, profits, and production. The social and economic functions associated with agriculture must be appreciated while discussing its contribution to the GHG pool. Besides, the huge potential that agriculture offers to sustain food security along with reducing emission must be accorded priority while allocating resources. At the same time, it is also indispensable to involve small farmers, indigenous population and local communities in the policy making. If we need local productions for local markets rather than produce grown thousands of miles away and pushed down the throat of people violating their right to choice and adding huge carbon footprints, these communities must be at the heart of exploring solutions. Agrarian reforms, recognition to small farmers and making agriculture a viable economic activity, their right to seed, land and water etc. hold the key to world's food security and need coherent government policy rather than profit oriented market based mechanisms.

