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Time now for taking Adaptation Seriously

By

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Abstract

Among development experts there is a widely held view that adaptation to climate change must be planned bottom up and many examples are shown how small communities have been able to tackle higher temperatures and irregular rainfall by changing their cropping patterns and crops. Such instances are indeed many but it should be remembered that non-technological innovations of this nature have only very narrow range within which they can provide some succour. Serious adaptation measures that can help tide over large changes in temperatures and precipitation are likely to be costly technology based efforts the demand for which would not arise bottom up but must, of necessity, be planned top down. Adaptation Planning is best done by a small team of experts happy to work among a noisy opinionated crowd of local stakeholders, willing to listen to them but knowing well that Grandma's wisdom is good only for surviving a hot day's outing in the sun.

Key words: Climate change, Adaptation, Technology Transfer

Citation: Kant, P. 2010. Time now For taking Adaptation Seriously, IGREC Working Paper IGREC- 08: 2010. Institute of Green Economy, New Delhi

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Winter is the favourite season of climate naysayers. With shivering temperatures and thick blanket of white snow around them in the industrial heartland of North, and sometimes even in the deserts of Dubai, it does not require high persuasive skills to kick up a furore in a section of the media and for a few days the world can only talk of how it is colder now than ever in the past and how the climate scientists, ever greedy for funding, have been misleading the gullible international community about warming presenting one exaggerated model after another when actually the temperatures are dipping!

Contrary to what one would like to believe all of this is not driven only by petrodollars and the car manufacturers since inertia, unwillingness to apply even the least bit of pressure on the cranium, and blindness to what should be obvious, is at least as widespread as corruption. Still, one suspects, these days the climate change naysayers are increasingly becoming disheartened if not rare. Their decline started a number of years back when it began becoming clear to even the Neanderthals among men that warming did not result from climate modelling!

New evidence is now emerging which suggests that the IPCC estimates on Himalayan glacier melt may not actually have been far off the mark. The differences in the sizes and shapes of some of the Himalayan glaciers now, when compared with their photos taken by climbers in the early years of twentieth century, are startling. And fresh data released by the National oceanographic and Atmospheric Administration of USA makes the picture even more dismal. June 2010 was the hottest month of June in the entire recorded history of the weather with its average over the entire oceanic and terrestrial surface of the world 0.64 C higher than the average over the past one century. And so were the January to June half yearly and April to June quarterly average temperatures for the current year.

But now it hardly requires scientific proof. Till a few years back many Finns had seen fans and air conditioners only in movies. This summer there have been news reports that shopping malls in Helsinki are running out of their stocks of air conditioners even before the supplies reach them.

But hardy and determined as they are, you could depend upon the naysayers to rise up from their bunkers sooner rather than later. Their last tactical attack on their favourite target IPCC and its boss, R K Pachauri, almost succeeded in making him walk into his Himalayan oblivion nursing the glaciers, he predicted, were going to disappear. A relatively minor mistake of a nature that is bound to recur, and something which could have been easily corrected shook up the climate establishment across the world.

Apart from the timing of their assault, always winters, the nationalities of the doubters are as predictable. They are invariably from the developed countries. It would be impossible to find even a single naysayer in the developing countries, most of them in tropics, because the evidence of warming climate is everywhere. The poorer the country, the greater are the difficulties that are already being caused by the changing climate and for the least developed countries (LDCs) the debate is not whether the climate is changing or not but about how to survive the warming.

Fortunately, the UNFCCC has prioritized adaptation programmes for the LDCs and helped them formulate their National Action Plans for Adaptation (NAPA) and by this time most of the forty

nine LDCs have already submitted their NAPAs. The implementation of NAPAs has not yet begun in earnest and it is to be hoped that there are adequate funds for implementing these programmes, most of which are very modest in their ambitions, perhaps because they are tentative in nature, more by way of scoping than actually adapting.

While most plans are sound, if modest, some may not be able to help the countries and the communities to adapt to the changing climate as they appear to be ill-conceived even though well intentioned. One such project which came to the notice of this writer is a project in Mauritania titled “Participatory reforestation for energy and agroforestry in agricultural zones”. The rationale of the project appears logical. Mauritania is a desert country with very little extent of land capable of agricultural production and most of the settlements are around these farming areas. With increasing population and decreasing availability of biomass for energy rural women have to walk long distances to gather wood for cooking and this is a project that is intended to help them get wood in the neighbourhood of their farms. At some stage in the future there is a likelihood of it being linked to generation of electricity using biomass.

That, however, is not the immediate priority or possibility. The overall general objective of the project is sustainable management of agricultural ecosystems through the introduction of quick growing trees into cultivation systems and enhance woody biomass production by planting hedges, tree intercropping with agricultural crops and village afforestation. The expected outcome is improved soil production besides satisfying the increased demand for energy. The total cost of the project is a modest US\$ 1 million to be spent over a period of five years.

The objective is laudable and indeed adaptation efforts must first aim at making the lives of the rural women and children more liveable in these LDCs. But since Mauritania is a desert country with very little water, there is a strong possibility that fast growing tree species planted on the hedges and among the agricultural crops would compete for the most precious commodity in these dry lands, the moisture. Fast growing species grow fast because they are good at beating competition for nutrients and moisture from their neighbours and it is possible that the overall agricultural production in the lands where this project is implemented may go down significantly. Translated into the lives of the rural poor, this would mean that they might have less food but more energy to cook it with, certainly not a happy situation for societies straining to meet their food requirements.

The adaptation programme needs to be designed differently from the normal developmental programme. It must look at what would be available in greater measures under the changing climate and then convert that into a useful product. Simultaneously, it must assess what would be available less as the globe warms up and initiate efforts to conserve the same. Under the warming climate, Mauritania, a very hot and dry land, is likely to become hotter and drier with more sunshine and less precipitation. It is for this reason that adaptation projects in these lands should make use of increased sunshine, and conserve moisture in whatever manner possible, and use it for producing the top most priority, food. Thus one would recommend largely solar energy based adaptation efforts in a country like Mauritania even though the cost would be several times higher than the projected cost for this biomass based energy project. Adaptation to climate change is not going to be cheap. We would only delude ourselves if we look for options which are cheap and technically inappropriate.

There could be another source of problem. Among development experts there is a widely held view that adaptation to climate change must be planned bottom up and many examples are shown how small communities have been able to tackle higher temperatures and irregular rainfall by changing their cropping patterns and crops, or using white paints over their rooftops among encouraging stories of human innovative spirit. Such instances are indeed many but it should be remembered that non-technological innovations of this nature have only very narrow range within which they can provide some succour. Serious adaptation measures that can help tide over large changes in temperatures and precipitation are likely to be costly technology based efforts the demand for which would not arise bottom up but must, of necessity, be planned top down. Adaptation Planning is best done by a small team of experts happy to work among a noisy opinionated crowd of local stakeholders, willing to listen to them but knowing well that Grandma's wisdom is good only for surviving a hot day's outing in the sun.

Adaptation is a serious business the costs of which, undertaken with sincerity, is going to be no less than that of mitigation.

Reference and further readings:-

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