

What the climate change implies – business & industry should react to the social and environmental changes in the future

R K Pachauri

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In the last few months, there has been an escalation of interest on the part of the public, relating to the global threat of climate change. This has been brought about by a series of developments and events, such as the impacts of hurricanes Katrina and Rita, as well as other extreme events in several parts of the globe, the advocacy of several political figures who have been at the forefront of defining the challenge of climate change and, of course, most recently, the release of three working group reports, as part of the Fourth Assessment Report of the IPCC.

Several leaders of business and industry have seen in the IPCC's analysis and assessment of climate change market opportunities for development of low carbon technologies and the imperatives of preparing for a world that faces increasing levels of climate change. The three reports bring out not only the assessment of the physical science basis of climate change and projections for the future, but also a detailed assessment of impacts of climate change, as well as options by which this problem can be solved through effective mitigation measures.

To start with, it is important to state that, of the warmest 12 years since temperatures have been recorded, 11 have occurred in the last 12 years. Also, the rate at which temperatures have increased have been progressively steeper since the beginning of industrialisation, with the steepest increase occurring in the most recent decade. Observations on precipitation patterns, both rain and snow, show evidence of systematic change. In general, the temperate regions in the Northern Hemisphere exhibit increases in precipitation whereas several parts of Southern Africa, South Asia, the Mediterranean and parts of Sub Saharan Africa are experiencing reduction in overall precipitation. Concurrently, there is in these very regions, which are experiencing a decline in precipitation levels, an increase in extreme precipitation events. Observations also indicate an increase in frequency of floods and droughts, and this trend is likely to continue in the future as well.

Projections of future climate change include a best estimate of 1.8°C for a low scenario and a best estimate of 4°C for the high scenario. Corresponding levels of sea level rise for these changes of average global surface temperature range from 18 cm to 59 cm by the end of this century. It is also projected that these levels of climate change would have several adverse impacts on physical and social systems. Up to 30 per cent of species would be at increasing risk of extinction even at temperature changes of 1.5°C upward relative to temperatures during 1980-99. Coastal areas are likely to be subjected to the risk of flooding, to the extent that in 2080, according to one scenario, over 30 million people would face this risk per annum.

These impacts of climate change provide a strong rationale for action to stabilise the concentration of greenhouse gases (GHGS) in the earth's atmosphere. Fortunately, the cost of mitigation to achieve stabilisation of the atmosphere at 445 parts per million' (PPM) of CO₂-equivalent by 2030 would amount to only 3 per cent of global GDP. In other words, at current rates of global economic growth, this would imply postponing a projected level of prosperity by a few months. It has also been assessed that in order to

stabilise concentration of GHGS at this level emissions globally can increase up to 2015 and would then have to decline beyond that period.

If the global mitigation regime requires such a level of stabilisation through international agreement, the signal for business and industry is very clear. This would show that beyond 2015, and in anticipation even earlier, companies will have to develop technologies that are low in carbon and GHGS intensity. At the same-time, business and industry needs to put in place certain adaptation measures: such as preparing for high levels of water scarcity and stress through measures such as recycling water, and using every drop more efficiently. Businesses would have to prepare for high incidence of diseases through effective preventive measures and through the preventive measures and through the provision of proper medical care.

An essential step in meeting the threat of climate change is for countries and sub-regions of countries as large as India to carry out an effective assessment of changes. Since business enterprises periodically carry out SWOT (strengths, weaknesses, opportunities and threats) analyses, then all that is required is to add to ongoing processes the dimensions of climate change and the opportunities and threats that this might create.

It is becoming increasingly evident that business and industry will have to get involved on an increasing scale by anticipating and acting against a range of social and environmental changes that are likely to take place in the future. With this in view Teri established the grouping of industries called Teri-BCSD India, which is an affiliate of the World Business Council for Sustainable Development. Teri-BCSD India currently has 70 members including some of the largest companies operating in India. Climate change would be an important part of the agenda of this grouping of companies, which it is hoped would show the way for the rest of business and industry in India.