# Mitigating Challenges and Building a Sustainable Environment

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It has become quite a routine to add the word sustainable in whatever we do thinking it will therefore become sacred and acceptable. But sustainability is still a very complex and not yet a crystallized concept. Just adding the word sustainable several times does not make an economy sustainable. Sustainability is still something to be designed.

In order to design sustainability, one must know the environment very well. West Bengal is unique among Indian States in terms of environmental diversity. It has high hills in the north, flat plains in the middle and delta areas in the south with the Bay of Bengal. No other State in the country has such diversity of altitude and hence environmental possibilities. It also means that an industrial model for say Kolkata cannot be put up in Kursheong without considering the local specific sustainability.

West Bengal is also a very densely populated state. The population density also varies with very densely populated Kolkata area extending into industrial areas like Durgapur and Asansol. Dense population means destruction of ground water, destruction of wet lands and increasing urbanization of agricultural lands – all related to the so-called demand of economy and population.

In the global context there is a blame game going on since 1992, whether the increased population is responsible for unsustainability or it is the consumption of the industrialized countries. In this game both parties are trying to hide the reality that both are quite clearly responsible; and in countries like India the rich often hide behind the poor. The rich in India, in terms of consumption, is as good as a standard middle class European. But then we have the huge poor population on whom the responsibility of bringing down the average is thrusted. We say that on an average India is very low consuming but this is how the Indian rich hides behind the poor.

The climate of West Bengal is monsoon dominated. Monsoon is not a very well-known climatic process. It gives lot of water for 3 months but any monsoon dominated region is 3 months water-rich and 9 months water-poor. There is huge water scarcity for 9 months and there is more than ample water during those 3 months. These are important environmental challenges. The average picture is not a very scientific parameter for environmental understanding.

Climate change makes the issue difficult and uncertain. When we talk of climate change the media focuses on Sunderbans. Climate changes will affect non-Sunderban areas in a much more fundamental way - in terms of rainfall, longer dry spell and stress on agriculture. Climate change has to be considered for all areas from the foothills of the Himalayas to the city of Kolkata and the delta area.

Climate change is not well understood. Our models are still undeveloped and we still have some thumb rules: that there will be more intense rainfall, more total rainfall but concentrated in the period of precipitation, large gaps in the monsoon, higher temperature and lower rainfall in winter. This climate change is a matter of serious concern for which adequate science is yet to develop.

As one goes down into southern parts of West Bengal and reaches Sunderbans the climate change and global warming are going to have an important effect. The global warming is going to increase the volume of oceanic water which will make the sea level rise. The molten ice of the Himalayas does not contribute much to sea level rise. Sea level rise takes place more because of the thermal expansion of a heated ocean. As much as 3 to 5 degree centigrade could be the rise by the end of the century and will have substantial effect on the sea level rise. There will be additional inputs from melting glaciers.

The most devastating effect is not the sea level rise itself but the sea level rise combined with the heating of the ocean which is the root cause of creation of high intensity cyclones. When the ocean is heated up it creates a condition for cyclone. There will be many more cyclones in the southern parts of West Bengal in the coming years and decades. Reducing greenhouse gases is therefore essential.

Another aspect that is going to be important for part of West Bengal is the riverine geomorphology and shifting of the rivers, including Ganga. The Ganga has shifted at many places at many times and it is still moving eastwards. There are other rivers which are also moving because highly sediment driven rivers are not of the European types which flow gently along the same channel, Geomorphology of the southern part of West Bengal in years to come is a very important environment related concern.

We need to come out of the thought-trap that the colonial rulers destroyed our environment. The reverse is to considerable extent the truth. Whatever forests are left today in this country are where the areas were reserved by the colonial forest officials. If one notes that during the period when Ramayana was written it was possible from Ayodhya to go for ‘vanavas’ just within 40- 50 -60 kms. There is no forest today in that area because the British did not reserve those forests. In contrast, the whole of Sunderbans has remained protected. Forest protection and wet land protection will continue to be very important issues.

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