

The science of weather forecasting and behaviour of the monsoon

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The Indian monsoon and its vagaries are very difficult to predict, but such a large part of the Indian economy and the lives of so many people depend on it, that we need to reach a level of perfection in forecasting monsoon rains. It is a pity that the Indian Meteorological Department (IMD) was one of the best such organizations in the world some decades ago, but with the typical erosion of expertise and organizational capabilities that we see in so many cases all around, this particular Department went downhill for much too long. Till four or five years ago they even denied the science of climate change and took public positions that climate change was not happening based on the data they have available. Now, fortunately, we have a Ministry of Earth Sciences under which the IMD has been placed, and some signs of improvement are in evidence. Also, the Ministry is strengthening the capabilities of the Indian Institute of Tropical Meteorology (IITM), Pune and the National Centre for Medium Range Weather Forecasting (NCMRWF), Noida. However, the IMD is still very far behind organizations like the China Meteorological Administration, where world class capabilities have been established. We have an MoU with IMD now, which gives us an opportunity to work with that organization. However, we need to supplement their expertise with our work on climate change, and possibly gain information and data, which they have an abundance of.

In essence, while India's population has grown and the vulnerability of society in this country to climate variability and climate change has increased enormously, we have not really kept pace with the scientific knowledge that would be the basis for making adjustments in these factors, particularly as they relate to agriculture, horticulture and water supply systems.

Source: TERI Intranet