

This year's monsoon rains - is this an indicator of the future

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Delhi and other parts of the country have received excessive rain in the past few weeks, which is at variance with the patterns that we saw at the beginning of the current monsoon season. While most comments in the media are looking merely at averages and estimating the reduction in overall precipitation during this period, we have not really analysed in detail the substantial variance that we have experienced this year in terms of the timing of precipitation as compared with established patterns in the past. As far as the weather is concerned, averages can be very misleading. This is also true of temperature patterns, because outlier values of temperature can cause significant damage. Increase in temperature above normal at particular stages in the wheat cycle, for instance, can lead to significant impacts on the productivity of wheat. Similarly, if rainfall occurs heavily towards the end of the monsoon period it has serious implications for farming activities where moisture levels are critical not only in terms of the quantum of water available, but also the timing with respect to established cropping cycles.

In my meetings with Chief Ministers and officials of state governments I have been emphasizing this aspect, because with changes in precipitation patterns and projections of much heavier rainfall, we would need to adapt to this reality in the future. Given the fact that a large number of our rural population is dependent on rainfed agriculture, we would really have no choice but to put in place infrastructure and adaptation measures that would help prevent economic loss and a threat to food security in different parts of the country. Even more important, of course, is the need to protect lives and property against extreme events and disasters resulting from climate change. In my discussions I find that in some respects state level leaders are much more responsive on issues such as this, perhaps because they are much closer to reality than those at the central level. I am hoping that on some of these issues we can come up with clear plans by which we use our scientific capability to help different parts of this country in dealing with the impacts of climate change, which the IPCC has projected with a very high level of probability. In this respect I am really happy that TERI has established adequate capability in the field of climate modelling and that we also took the timely step of acquiring a supercomputer to run our climate models.

Source: TERI Intranet