

## Climate change is going to hit the Indian economy hard

The farm sector in India is in distress and several state governments have responded with loan waivers, which could affect their fiscal math and the ability to push capital expenditure at a time when the Indian economy has slowed significantly. This comes after India faced deficient rainfall for two consecutive years in 2014 and 2015. According to estimates, production of kharif crops in the current year is expected to decline by 2.8% because of an uneven monsoon. The possibility of such weather events is likely to increase in the future. And that means a serious challenge for a country like India where about 50% of the population directly or indirectly depends on agriculture for a livelihood.

An analytical chapter from the World Economic Outlook of the International Monetary Fund (IMF), released on Wednesday, highlights some of the damaging macroeconomic impact of weather shocks, particularly for low-income countries. The IMF notes that for the median emerging market economy, growth goes down by 0.9 percentage point in the same year because of a 1-degree Celsius increase from a temperature of 22 degrees Celsius. The impact on the median low-income developing country is even higher. What is worse is that the output doesn't recover quickly after a weather shock. Even after seven years, the per capita output is lower by 1% and 1.5%, respectively, for the median emerging market and the median low-income country.

Weather does not affect the agriculture sector alone, it affects productivity in general. Research shows that productivity starts declining strongly after peaking at an average annual temperature of about 13 degrees Celsius. Therefore, countries located in areas with higher temperature will face a disproportionate impact of global warming. Loss of output and lower productivity also affects capital formation, which has a bearing on medium- to long-term growth prospects.

The necessary steps to minimize the impact of climate change will have to be taken at both the individual country level and the global level. In order to reduce the impact of changing weather patterns, emerging market and low-income economies will have to build significant macroeconomic resilience.

The IMF, for example, notes: "The results suggest that having the right policies and institutions in place may help attenuate the effects of temperature shocks, to some extent. The instantaneous effect of a temperature shock is slightly smaller in countries with lower public debt, higher inflows of foreign aid, and greater exchange rate flexibility." India is relatively better off in this context, but it needs to preserve and further strengthen macroeconomic stability to be able to deal with such shocks.

Over the years, India has done well to reduce its dependence on the monsoon, which is evident from the fact that two successive years of drought did not result in runaway inflation. However, more needs to be done to enhance productivity in the agriculture sector. Financial losses can be reduced by higher penetration of insurance products.

Further, India can work on programmes that will help improve the quality of land and reduce the risk of climate change. In Ethiopia, for example, food and cash is provided to the poor who participate in local environmental programmes. This has resulted in reduction in soil loss and has increased the availability of water. India can perhaps use employment under the Mahatma Gandhi National Rural Employment Guarantee Act in a better way to enhance soil and water conservation. India also needs to strengthen its overall capability by investing in and adopting technology as the impact of climate change is not limited to agriculture. For instance, better use of technology can reduce energy consumption for air conditioning. A district cooling system is being constructed in Gujarat International Finance Tec-City. It will be interesting to see if this can be adopted in other

cities as well.

At the global level, a consensus was attained under the Paris Agreement to contain the rise in global temperature to below 2 degrees Celsius from the pre industrial levels. Advanced countries have also committed to provide financial assistance to developing countries to help cope with the impact of climate change. However, things are not moving as desired. The Donald Trump administration in the US is not keen on continuing with the Paris Agreement. This will damage the project substantially and a renegotiation will only increase uncertainty. It is also being reported that advanced economies may not meet their commitment of reducing emissions. The lack of will among industrialized economies to contain emissions is disappointing, and it could lead to consequences that go beyond the realm of macroeconomics. India would do well to prepare for the challenge.

*How can India reduce the impact of global warming? Tell us at [views@livemint.com](mailto:views@livemint.com)*

END

Downloaded from **crackIAS.com**

© **Zuccess App** by crackIAS.com

crackIAS.com