Climate Services: Navigating into an Uncertain Future

Indo-Norwegian research collaboration on climate change adaptation

Climate Services in agriculture sector is an emerging policy field that builds on conventional meteorological and agro-meteorological services. Farmers across India, especially small-scale farmers, depend on advanced information and warning about weather conditions at the local level. The proliferation of mobile telecommunication and internet – at increasingly affordable rates – has made this channel an efficient way of delivering weather-based agro-advisories to farmers at a large scale in India.

The growth in number of farmer subscribers has been overwhelming. Over 50 lakh farmers have been reached in the state of Maharashtra only, while the number across India is in excess of 1.5 crore. Scaling up of such experiments is a must but it poses several challenges. The relevance and tailoring of such services to local demands depends on a set of institutional, collaborative, technical and operational aspects of the climate services. Since India has diverse topography and climatic conditions, the extent of village-level, farmer -specific data available is very limited. Also, there are limitations for downscaling district level or block level weather forecasts right up to the village-level.

What make it further complicated are the institutional challenges that arise due to the amount of coordination required for generating and delivering advisories. The climate services sector in India works as a consortium of knowledge networks made up of private, public and not-for-profit institutions, including universities. This means that every advisory service requires collaboration between different institutions!

Farmers at their end are also using technology to battle the forces of weather variations. Using their smart phones they have formed crop-specific Whatsapp groups, which act as hyper-local communication platforms for and by farmers. This is an example of a bottom-up process of development and implementation of adaptation measures. Farmers can self-advise and readily share information among peers, such as response to pest attacks, differences in market prices etc.

The Energy and Resoruces Institute (TERI) has been studying climate services system in India through its Indo-Norwegian Research Project on Governance of Climate Services. The project is a three-year (2014-2017) study that analyses conditions for effective governance of climate services in India. It compares 4 Indian agro-meteorological service systems, both public and private to study how they are governed and if they provide rural farmers with tailored and participatory services in Maharashtra.

The research findings suggest that a set of gaps/challenges exist in terms of accuracy, timeliness and accessibility of agro met advisories. In comparing the Indian and the Norwegian agro-met services systems, effective coordination of an array of public and private actors is a precondition for effective learning and transfer of agro met information in both the countries. Also Climate Services, in general, still remain largely supply driven. The development of agro-met advisories is yet to become a genuine process of co-evolution, co-discovery and co-development with the end-users. The research suggests that more interaction and dialogue between service providers and farmers is a precondition for more tailored services and uptake of information among farmers in both countries. A stronger focus on medium-range and long-range climate knowledge for farmers and agricultural planners would be warranted for a more adaptive agriculture to emerge.

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