Digitisation of farm data needs awareness

The digitisation of Indian agriculture seems set to get a fillip thanks to the government's recent initiative to rope in corporate houses in this exercise. The chief objective of this move is to enable various players in the farm sector value chain, from production to consumption, to take informed decisions about their professional and business matters. Farmers, who form the main focus of this exercise, would get digital access to timely, situation-specific, and problem-solving knowhow. They would also receive tips on what crops and their varieties to grow, and when and where to sell their produce to realise the best prices. Formal agreements have recently been signed by the agriculture ministry with five business groups to take up pilot projects for this purpose on a *pro bono* (free of charge) basis in select areas for one year. These would be scaled up if found useful. A Digital Agricultural Mission has also been launched for the period 2021-25 to promote the use of novel technologies like artificial intelligence, blockchain (hack-proof) data upkeep, remote sensing, geographic information systems (GIS), drones, and robots.

FARM VIEW

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The companies signing the pacts include Reliance Industries' information technology (IT) arm Jio, US multinational technology conglomerate Cisco, Kolkata-based corporate major ITC, the IT wing of India's leading commodity exchange NCDEX e-Markets Ltd (NeML), and the large fresh produce supply chain Ninjacart.

Interestingly, the agriculture-related data of about 55 million farmers has already been digitised. This number is expected to swell to 100 million by the end of the year. According to Krishi Bhawan sources, this database is proposed to be integrated with the land records of farmers to create a national data resource. This would come in handy to create a unique identity for each farmer (Farmer ID) for better targeting of cash benefits and other kinds of support and services provided by the Centre and state governments.

Jio and its affiliates already have a "JioKrishi" Platform, which provides soil tests and water availability-based advisories to cultivators and facilitates their direct interaction with farm scientists. Such services would be extended under the new project to Jalna and Nashik districts of Maharashtra. Similarly, ITC, famed for its network of e-choupals, has proposed to start a customised digital "site-specific crop advisory service" and supplement it with the required handholding support to enable the farmers carry out the suggestions on their farms. It would undertake its proposed pilot project during the wheat-growing season in select villages of Sehore and Vidisha districts of Madhya Pradesh.

Cisco, along with its collaborator Quantela, has put in place digital agricultural infrastructure, including hardware and software, and has linked it with other information technology and artificial intelligence tools for knowledge-sharing on improved farm practices. The company would help in creating a similar digital network in Kaithal in Haryana and Morena in Madhya Pradesh.

The NeML wing of the National Spot Exchange, NCDEX, which is engaged in electronically interlinking markets, aggregating demand, financial linkages, and data management, would find solutions to farmers' problems by leveraging efficiency-enhancing technologies. It would disseminate information relating to crop arrivals, price trends, and locations of warehouses for the benefit of farmers in the Guntur area in Andhra Pradesh, Devangere in Karnataka, and Nashik in Maharashtra. Ninjacart, on the other hand, would work in Chhindwara and Indore in Madhya Pradesh and Anand in Gujarat to develop an "Agri-marketplace Platform" by bringing together all players in the post-harvest market chain.

However, these proposals do not seem to have gone down well with a section of farm organisations, especially those having leftist leanings, despite being, prima facie, beneficial for the farmers. Their objections pertain chiefly to the involvement of private companies in farmers' affairs with access to the entire data, including private information, related to individual cultivators. There are concerns about other issues as well, such as posting farmers' personal profiles in the public domain, which needs prior consent as it impinges on the right to privacy; misrepresenting land records, most of which are in bad shape at present; and the potential corporatisation of agriculture, subjugating the interests of actual land tillers.

The government, however, discounts misgivings over these issues and maintains that ample care would be taken to safeguard the digital data. The private data of farmers, though readily accessible to them for their own use, would not be shared with any organisation. This apart, a specific policy is also on the anvil to regulate collecting, preserving, and protecting agricultural data. This is being done in collaboration with the Ministry of Electronics and Information Technology.

Nevertheless, given the widespread apprehensions among farmers over the government's farm sector reforms, it would be advisable for the agriculture ministry to allay their fears concerning the digitisation of farm data. A well-organised awareness campaign is perhaps the need of the hour. This is imperative also to stave off a hostile reaction from the farmers of the kind the three new farm laws have evoked.

surinder.sud@gmail.com