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[WEEKLY INDIAN AGRI POLICY, TRENDS UPDATES]

1. Govt likely to bring a separate agriculture policy for farmers

Maharashtra chief minister Devendra Fadnavis plans an integrated comprehensive tribal welfare policy that would coordinate with the multiple departments' centre-state to address the problems of the "adivasis" across Maharashtra. The state government is also exploring the possibility of having a separate agriculture policy for the tribal farmers. The details will have to be worked with ministry of agriculture and tribal ministry. The finance minister Sudhir Mungantiwar whose well-versed with the tribal issue is keen on taking up the projects on priority. The chief minister is likely to hold a meeting with the union minister for agriculture Radhamohan Singh to take the proposal which was part of his Vision Document. Another aspect which is high on the agenda is a meeting with Rajiv Pratap Rudy to find out how central schemes can also be undertaken in the tribal belts to promote relevant skill education and vocational courses in the tribal belt. The chief minister has indicated that relevant skilled education courses through state and centre programmes can pave the way for new employment opportunities in the tribal region.

2. India provides soil research service to Afghanistan and Nepal

Indian Agricultural Research Institute (IARI), in collaboration with agricultural universities in Afghanistan and Nepal, is providing soil research and training to improve agriculture produce in those countries. The Indian Agricultural Research Institute (IARI), the country's premier national institute for agricultural research, education and extension is providing advanced training and research to Afghanistan and Nepal. The Indian Agricultural Research Institute (IARI) had recently launched a soil testing device which is a digital meter that checks the fertility of the soil for better fertilizer recommendations. The soil testing device is programmed to provide fertilizer recommendation for the crops. This equipment is cost effective and user friendly. India will be offering the soil testing device to Nepal and Afghanistan. In Afghanistan, 75% of the population is dependent on agriculture for earning their livelihood. Agriculture accounts for 25% in Gross domestic product of the country. IARI is giving special emphasis to Afghanistan and is helping the war-torn country by setting up an Agricultural Institute in Kandahar Province. The motive is to help Afghanistan for better productivity of crops. IARI also enrolls students from Afghanistan in various disciplines. It includes pathology, seed science and technology, agronomy, horticulture and bio technology.

3. Smart agriculture for food security

The outlook for all things smart is opening up, including Climate-Smart Agriculture (CSA). Varanasi, set to develop as a Smart City, will be a lighthouse for sectors seeking sustainable ways to handle demographic pressures, finite environmental resources and climate change. The Finance Minister's budget speech has promised a hundred smart cities. With urban India well covered, it is the turn now of smart agriculture, equipped both to enhance food security and combat global warming. CSA will promote; increased food production through best practices; adaptation to the adverse impacts of climate change; and mitigation of the

greenhouse gases (GHGs) both through reduced agriculture-related emissions and absorption of atmospheric carbon. It is notable that while agriculture produces food, it also produces GHGs (methane, nitrous oxide, carbon dioxide) - about 17% nationally, after energy 57% and industry 22%. Farmers have, for generations been minimising risks and adapting to climate variability, though now they will have to cope with the accelerated pace of change. Mitigation through agriculture is a new entrant into the equation.

4. Multiple schemes flood agriculture sector

Agriculture sector is the top priority of Bihar government, chief minister Jitan Ram Manjhi said while releasing the JD (U) government's ninth annual Report Card recently. Manjhi said 76% of the state's population is dependent on agriculture for their livelihood. Various programmes have been launched to boost yield, and the average productivity of wheat and paddy in the state has crossed the national average productivity. Encouraged by the success of agriculture roadmap, the government has introduced another multidimensional agriculture roadmap. Under the new roadmap, Manjhi said, schemes have been started to provide quality inputs to farmers and train them in use of latest techniques through field demonstrations. Initiatives have been made to promote production of grains, pulses, oil seeds, fruits, vegetables, sugarcane, jute, honey, mushroom, milk, meat, eggs and fish.

5. Drought-hit Vidarbha farmers to get solar pumps on priority, says Fadnavis

The six Vidarbha districts, which are most prone to farmer suicides, will get priority in allocation of solar pumps to overcome the power crisis in the region, Maharashtra Chief Minister Devendra Fadnavis said recently. "The state government has decided to set up five lakh solar pumps (for irrigation purpose) in the first phase and necessary global tenders will be floated later this month. Farmers in the suicide-prone districts in Vidarbha, who are waiting for power connections, will be provided solar pumps on priority," he said in Nagpur. The districts of Akola, Amravati, Buldhana, Washim, Yavatmal and Wardha have reported suicides by hundreds of distressed farmers in the last few years. Fadnavis was speaking after inaugurating the sixth edition of 'Agrovision', a brain child of Union Minister Nitin Gadkari which provides a platform to discuss agriculture-related issues. Sympathising with farmers, the chief minister said they had been hit by calamities in the last 3-4 years, when there had been either excess or very little rainfall. The government was giving Rs 8,000 crore subsidy on energy bills. Therefore, the solar pumps will help get rid of the problem of electricity shortage, Fadnavis said. He said to push scientific farming, the government will establish 2,065 weather forecast stations at block level to provide accurate information about rain and soil moisture.

6. ICRISAT, Australian agencies to undertake joint research

A new research agreement was signed between the Horticulture Innovation Australia (HIA) and the International Crops Research Institute for the Semi-Arid-Tropics (ICRISAT) at the institute's global headquarters. The Memorandum of Understanding (MoU) will allow

researchers from the ICRISAT and Australian agencies to undertake joint research and development (R&D) in plant genomics for the first time through HIA. The agreement was signed by David Cliffe, HIA Director and William Dar, ICRISAT Director General.

“We are excited that through this collaboration with HIA, ICRISAT and Australia will be doing not only high-quality but high-impact research that is expected to reach and benefit millions of farmers and consumers globally,” said Dr. Dar of the agreement. Emphasising the importance of the new partnership, Mr. Cliffe said: “HIA is glad to start this collaboration with ICRISAT in the area of modern genome science, including sequencing, genotyping and functional genomics, that will help advance the horticulture industry in Australia and worldwide.” “We have completed the genome sequencing of reference genomes of leading legume crops such as chickpea and pigeonpea, having sequenced the genomes of more than 1,000 lines of these legumes,” said Rajeev Varshney, Director of ICRISAT’s Centre of Excellence in Genomics and the Research Program on Grain Legumes.

7. Vengeri brinjal gaining fame across borders

The popularity of deep violet coloured 'Vengeri brinjal', the indigenous variety developed by the Niravu resident association, Kerela in the corporation limit has already crossed Indian borders. The brinjal, which received the certificate of merit from the Kerala Agriculture University, is in great demand among the non-resident Keralites residing overseas and farmers across the country. Considering the growing demand for its seeds, the Niravu farmers club is planning to increase the production of seeds in order to meet the online orders being placed through its website www.niravu.com. The Niravu seed bank has already sold around 10,000 brinjal seed packets to across the state, Bangalore, Mumbai, Chennai and Delhi. It has also sold seed packets to NRKs in US, Europe, Gulf and Australia. The Kerala Agriculture University (KAU) has awarded certificate of merit to the indigenous variety which has an average length of 44 cm and 12.5 cm thickness. P Indira, professor of horticulture department of KAU who conducted a study in the field last year, recommended it apt for kitchen gardening. Also, the variety proved tasty and gave a high yield of 1.75 kg during the experiment.

8. B'lore to create weather-proof agri storage facility

As a long-term measure for stabilising the prices of agricultural produce, Karnataka has embarked upon a project to create weather-proof storage facility with a capacity of 10 lakh tonnes so that farmers are not compelled to dispose their produce soon after harvest. Announcing this, Minister of State for Agriculture Krishna Byregowda, said efforts were on to build five lakh tonnes of storage capacity at a cost of about Rs. 1,700 crore in 18 months under the first phase of the project. The Nabard-funded project was being taken up jointly by various departments including agriculture and co-operation, he said. Under this project, scientific storage facility for foodgrains would be created at various places in the state.

Lack of proper storage facility was one of the reasons why farmers were forced to sell their produce soon after the harvest even if the prices were low. Creating scientific storage facility would now put the farmers in a situation where they could wait for the prices to pick up while selling their produce, he noted. Meanwhile, another project of the State government to tackle labour shortage through mechanisation by setting up custom-hiring centres would begin this month itself. About 175 custom-hiring centres would begin operational by this month-end under this project taken up under public-private partnership model, he said.

9. Proposal for new insurance Scheme For Agriculturists

With a view to make the crop insurance more farmers' friendly, government replaced National Agricultural Insurance Scheme (NAIS) by Modified National Agricultural Insurance Scheme (MNAIS) w.e.f Rabi 2013-14. However, on the representations from some State Governments, NAIS was allowed to such States for implementation during Rabi 2013-14. Again all State Governments/UT Administrations have been given the option to implement either NAIS or MNAIS for the year 2014-15. Further, improvement in existing Crop insurance coverage to compensate them reasonably well in case of adverse situations leading to loss in crops.

10. Techies turn horticulturists to develop model guava farm

Three engineers and a textile chemist have come together to create a horticulture farm that is turning out to be a model for farmers. Striking a balance between traditional and modern farming, they have reaped a rich harvest of guavas in less than 18 months. Besides using drip irrigation, bagging of growing fruits and organic manure made in the farm, the group introduced various bacteria at different stages of growth. Now, Perna Farm at Sunderpura near Vadodara also has the distinction of being the second-largest guava orchard in the state with over 10,500 plants. The guavas can weigh up to 1kg each with the average being 300gm or 400gm a piece.

The bacteria are especially cultured and provided to the plants at regular intervals to facilitate growth and help them absorb the nutrients better. They also incorporate the age-old technique of using 'Pernamrut' - a formulation of cow dung and cow urine.

11. PAU develops soilless vegetable technology

Punjab Agricultural University has become the first Indian university to have successfully developed the low-cost indigenous greenhouse hydroponics technology to cultivate soilless vegetable for higher vegetable yield and lower water and nutrient consumption. The technology has been developed using recirculation system on the pattern of USA and Europe. PAU research director Balwinder Singh recently inaugurated the technology in the research field of the department of mechanical engineering. V P Sethi, professor and head of the department of mechanical engineering, PAU has been instrumental in designing and

developing the indigenous technology under the Rashtriya Krishi Vikas Yojana (RKVY) project.

Sethi said this technology has been developed after two years of continuous efforts and experimentation. It involves cultivation of plants in suitable size pots (two plants per pot) filled with porous root media, having properties similar to soil. A balanced solution of water and nutrients is premixed in a dossier system and pumped to each plant intermittently in a controlled manner. This enhances crop yield in much lesser space as compared to conventional soil based greenhouse/polyhouse cultivation

12. Onion irradiation trial likely from next summer

The Maharashtra State Agriculture Marketing Board (MSAMB) is planning to experiment with irradiation of onions from next summer to enhance its quality and shelf life. There is already an irradiation centre at Lasalgaon for irradiation of agricultural commodities. Currently, the MSAMB is irradiating mangoes before exporting the fruits to the US. The MSAMB is also planning to propagate irradiation of onions among farmers after experiments.

According to an MSAMB official, "The summer onions are generally stored by the farmers as the commodity grown in the rabi season has a good shelf life. The summer crop, which is harvested in March and April, can be stored up to September. But it develops sprouts and the weight is also reduced up to 30% during the storage. The shelf life of onions increases if the crops are irradiated. Keeping this in mind, we are planning to make experiments on both irradiated and non-irradiate onions to check the effect on the quality. We will find out how much shelf life of irradiated onions increases, whether the irradiated onions get sprouted after five six months and how much is the loss in weight."