

INDIAN AGRICULTURE : INITIATIVES, ACHIEVEMENTS & PROGRESS

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Despite tremendous progress made by India in the field of industry and services, agriculture continues to play a pivotal role in India's \$ 2 trillion economy. Nearly 58 per cent of Indian households depend on farming. Agriculture, remains a key contributor to India's economic development not only by its share of the Gross Domestic Product (GDP), but also as a driver for industrial growth by producing critical raw material and by funnelling savings, and consumption behaviour on which the sales of many industrial products depend.

Central Statistics Office (CSO) estimates show the share of agriculture and allied sectors (including agriculture, livestock, forestry and fishery) was 16.1 per cent of the Gross Value Added (GVA) during 2014-15 at 2011-12 prices. During the first quarter of financial year 2016-17, agriculture and allied sectors grew 1.9 per cent year-on-year and contributed 14.2 per cent of GVA.

India, fabled in ancient times as the spice continent, remains the largest producer, consumer and exporter of spices and spice products in the world. It tops the world in milk and fruit production. It ranks third in farm and agriculture outputs. Agricultural export constitutes 10 per cent of the country's exports and is the fourth-largest exported principal commodity.

However, the agricultural sector in India is also facing a crisis with drought afflicting large swathes of the country. Nearly a third of the country is suffering from drought. Among states worst affected are Uttar Pradesh, Madhya Pradesh, Maharashtra, Karnataka, Telangana, Andhra Pradesh, Chattisgarh and Odisha. More than 250 of India's 680 plus odd districts have experienced some form of drought. In the last four years, according to statements made by the Government

in parliament Indian agriculture has grown by 1.6 per cent annually in the last four years against a target of 4 per cent for the 12th five year plan period of 2012-2017.

The last time India saw such distress caused by back-to-back deficient rains was during the drought of



1986-87 and 1987-88. The severity of the situation is evident from the stories of migration and severe water crisis in Maharashtra and elsewhere. After the collapse in international prices for major agricultural commodities since late 2014, the drought has only aggravated the crisis in agriculture.

Investment

The Government is trying to address the situation by increasing investment in agriculture in an ambitious plan which aims to double farm income by 2022. In this year's budget, the government has allocated Rs. 35984 crore to the agriculture sector, reworked a crop insurance scheme, increased access to farm markets and

doled out an interest subsidy of Rs 15,000 to ease the burden of loan repayment on farmers. The higher budgetary allocation for agriculture and allied activities including farmer welfare represents an increase of 44 percent over last year's budget estimates.

"We are grateful to our farmers for being the backbone of the country's food security. We need to think beyond food security and give back to our farmers a sense of income security," Finance Minister Mr. Arun Jaitley had said while unveiling Budget 2016-17 in Lok Sabha in February.

A new revamped crop insurance scheme is among the initiatives which the Government is touting as its panacea for farmers. The new crop insurance scheme has been dubbed the 'Prime Minister Fasal Bima Yojana', for which Rs 5,500 crore has been allocated for effective implementation in 2016-17.

The scheme, which will cover crop losses due to drought or floods, will be linked with the Kisan card. To ensure speedier pay-outs, 25 percent of the likely claim will be settled directly on farmers account. The earlier National crop insurance scheme allowed the Government to insure small and marginal farmers who own less than 5 acres of land through a clutch of insurance firms.

However, officials said there would now be no caps on who can be covered and the premia would be lower as they would be based on a new index based on weather, which was the main cause for most Indian crop failures. Officials also added the scheme allowed inclusion of localised calamities and post harvest losses. An official release said "there is no upper limit on Government subsidy. Even if balance

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premium is 90 percent, it will be borne by the Government."

"The use of technology will be encouraged to a great extent. Smart phones will be used to capture and upload data of crop cutting to reduce the delays in claim payment to farmers. Remote sensing will be used to reduce the number of crop-cutting experiments," officials explained.

Farmers in India have been committing suicide every year in increasing numbers for the last two decades, driven to desperation by mounting losses and loans, run up because of a cycle of crop failure prompted by bad weather or pest infestations. Nearly half of India's farmers or 48.6 per cent are in debt, most of it incurred to convert to high risk, high yielding modern agriculture. Farmer suicides account for 11.2% of all suicides in India, with more than 12,000 suicides reported in 2014.

The basic reason why the earlier crop insurance scheme was never popular with farmers was that claims took a long time to settle and the premium charged was considered too high. Besides any fall in quality of crop due to any reason was never considered a ground for compensation.

The Government has also directed scheduled banks to step up lending to farmers to cut out moneylenders who prey on farmers with high cost loans. The target for rural lending by the formal banking sector has been increased from Rs 8.5 trillion in 2015-16 to Rs 9 trillion in 2016-2017. The Government of India has also allocated some Rs 25,000 crore (US\$ 3.67 billion) for the Rural Infrastructure Development Fund (RIDF), Rs 1,500 crore (US\$ 220 million) for the long-term rural credit fund, Rs 45,000 crore (US\$ 6.60 billion) to short-term cooperative rural credit finance fund and Rs 25,000 crore (US\$ 3.67 billion) to short-term Regional Rural Bank (RRB) refinance fund.

Currently the country's farm produce market is fractured by huge distances and different marketing practices, leading to a situation where potato may sell for Rs 2 a kilo in West Bengal and for Rs 20 a kilo in Delhi and for Rs. 30 a kilo in Rajasthan. In a bid to unify this market and cut out the huge arbitrage opportunities which middlemen avail of, the Prime Minister has launched in mid-April this year the National Agriculture Market (NAM) scheme, by launching an e-platform for marketing of agriculture products with the aim of providing more options to farmers to sell their produce.

National Agricultural Market

The National Agricultural Market (NAM) platform mooted by the government is expected to integrate agricultural mandis across the country in order to provide better price discovery and wider market access to farmers. However, analysts warn that this may face teething hurdles due to a lack of awareness and education among farmers along with resistance from commission agents who operate today in mandis across the country over fear of erosion of the super-profits they earn.

The Government is also taking steps to address two major issues - soil quality and water availability - critical for farming to survive and grow in the country. Steps have been taken to improve soil fertility on a sustainable basis by issuing soil health cards to all farmers and instructing agricultural extension workers to try and advice farmers on how to improve their soil fertility, through crop rotation checked fertiliser usage etc.. As part of this move the Government has come out in support of organic farming through a new scheme - 'Paramparagat Krishi Vikas Yojana' (PKVY). The Central Government is also working to improve access to irrigation through a 'Pradhanmantri Gram Sinchai Yojana' which has been allocated Rs. 50,000 crore for a five year period. The rural irrigation programme aims at focusing investments in rural irrigation with a specialised focus on micro-irrigation schemes which would aim at revitalising minor and major ponds, local water bodies, low-cost, innovative water retention techniques, check dams and small waterways to irrigate farms. As India operates a mainly rainfed agricultural system, it has long invested in irrigation capital to mitigate weather risk and stimulate production. India uses 13 per cent of the world's extracted water each year, and 87 per cent of that water is used in irrigation.

The government has also tried to improve water efficiency on farm fields through another scheme - 'Per Drop More Crop'. The initiative which is modelled on similar successful initiatives abroad including Israel, is to bring in new techniques in water conservation, drip irrigation, new varieties of seeds which are less water-intensive in farming etc..

The ultimate irrigation potential (UIP) in India, at current levels of technology, stands at 139.9 million hectares (m ha). Some 54 per cent of this potential comes from surface irrigation and 46 per cent from groundwater resources. Overall irrigation potential can however go up from the current 139.9 m ha

today to 170 m ha, if India is able to innovate water usage including bring in inter-linking of rivers, adopt more efficient water harvesting techniques etc..

The Government has also decided to grant continued support to Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) which guarantees 100 days employment to all rural youth. This is seen as a way of supplementing farm incomes and guaranteeing a minimum standard of life, besides helping create rural infrastructure – roads, irrigation projects, public horticultural activities etc..

A major driver of India's long-term farm productivity growth has been huge investments poured into the country's agricultural research. India's public agricultural research system includes public farm research spending. It also includes investments in higher education. India's two-tiered research system is made up of the Indian Council for Agricultural Research (ICAR) at the Union level and State Agricultural Universities at the state level.

Private investment in agricultural research in India is also becoming increasingly important, especially in seeds. Most of the private seed investors were Indian companies—multinationals invested less than half of the total private seed research money invested which amounted to more than \$ 60 million in 2008-09.

The Road Ahead

For the farm sector to achieve its place, India needs to focus on improving rural infrastructure, greater integration of markets, better storage facilities.

Factors such as reduced transaction costs and time, improved port gate management and better fiscal incentives would contribute to the sector's

growth. Furthermore, the growing use of engineered crops are likely to improve the yield for Indian farmers.

Greater globalization of farm trade will also impact farming in India, with a greater push towards commercial crops in Northern and western India. To achieve the necessary food security that India must have, the country's planners will have to look more closely at the east and Northeastern states. The Second Green revolution which the Government has been attempting to bring in will have to succeed in these states if India is to sustain its rising population.

With greater globalization of markets over the years, there will also be demands for greater agricultural intensification, with greater backward and forward linkages between agriculture and food industry. India is already working towards this end by allowing 100 % FDI in food retail which is expected to spur linkages between retail food store chains and farmers. This has implications for scientific research being directed to not only bring about greater productivity but also greater productivity in certain crops. India will also be hard pressed to better use limited water resources, especially as global warming and changing weather trends may make traditional agriculture unsustainable. Another important implication of increasing globalization would be the need for greater attention to quality of produce, produce handling, storage and packaging. The move towards global standards will increase costs, but at the same time greater efficiencies, less arbitrage opportunities will enhance profits for farmers and also lay a better quality product on consumer tables.

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