

Union Budget 2018:

reforms in Indian Agriculture

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The farmer works on the demand-side based on his region and consumption needs are supported by these local supply chains, mostly dominated by a chain of middlemen and agents who control the produce pricing. A few economists believe that the middlemen in farm produce need to be reined administratively and digitally so that pricing is transparent and neither can be manipulate nor charge above certain commission. e-NAM is the way out to curb several maladies in agricultural marketing system. There is need to create and institutionalize the market intelligence system and agricultural commodity market outlook models.

Key words: Agriculture, Budget, India, Reforms

TODAY agriculture elaborates business activity including the people and firms that provide the inputs, process the outputs, manufacture the food products and transport and sell the food products to consumers. The Finance Minister has chosen the path of not only the unenviable task of taking every section of the society along but also directed the budgetary measures at rural India aim to realize the 2022 goal. ‘The government says farmers’ income will be doubled by 2022. The agriculture sector gives employment to 50% of the total workforce and contributes 17-18% of the country’s GDP. Some economists agree that this could be possible if the growth in agriculture sector remain around 12% per annum. This is a stupendous task before the government. Accordingly, government outlined a slew of measures to boost agricultural production and the rural economy, announcing new projects as well as enhanced support for existing schemes to the tune of ₹ 14.34 trillion in the Union Budget 2018.

In this context, the role of the Budget for agricultural sector and farmers will remain crucial needs to

be analyzed.

Agricultural credit

Credit is one of the critical inputs in agriculture and an effective means of rural development in India. The literature reveals that 1% increase in agriculture credit would add around 10% increase in productivity. One of the objectives of the credit policy is to minimize the role of money lenders in the flow of agricultural credit. Kisan Credit Card (KCC) as a financial product is becoming very popular and successful to enhance the flow of institutional agricultural credit. The agricultural credit target was fixed ₹ 10 lakh crore for 2017-18, which is highest ever so far for a particular year. Efforts would be taken to ensure adequate flow of credit to the under serviced areas, the Eastern States, and Jammu and Kashmir. The intent is to facilitate adequate and hassle-free credit to all the farmers in times of need. The long-term objective would be to channalize all institutional credit to agriculture, both short-term and long-term through KCCs. The recent initiatives of bringing investment credit requirements like creation of

irrigation facility, purchasing of farming equipment etc., under the ambit of KCC scheme is a step in the right direction. Further, launching of variants of KCC like ‘Laghu Udyami Credit Card’, ‘Swarojgar Credit Card’ etc. would further strengthen the institutional mechanism of rural credit delivery system.

Increasing coverage of e-NAM: India being a vast country, some areas are confronting with natural disastrous and climate changes and face acute food shortages and high prices. The vertical and horizontal market linkages supported with adequate infrastructure and appropriate technology, policy and institutions would enhance agri-market integration. This would facilitate seamless flow of produce/information from surplus to deficit markets besides engaging in future/forward trades. The technology interface between buyers and sellers would curtail the collusion power of traders in the market and help in revealing full price of the agri-produce. e-NAM (National Agriculture Market), a single-window online service integrating *mandis* (agriculture markets), was launched

in April 2016 to let farmers and traders view all APMC (agriculture produce market committee)-related information and services, including commodity arrivals and prices, and buying and selling trade offers.

This market helps the farmers to bid for the best price across markets. In the budget 2017-18, the government has announced mission to link 585 *mandis* to the portal by March, 2018. As of now, around 250 markets have been covered. In the new budget, an assistance of up to ₹ 75 lakh has been announced for every e-NAM. Increasing agri-marketing infrastructure with ₹ 2000 cr is a positive move for developing agricultural markets. This fund would be used to develop and upgrade agricultural marketing infrastructure in the 22,000 rural *Haats* and liberalization of export of agriculture commodities. *Haats* will be transformed into *Grameen Agricultural Markets* (GrAMs) i.e organized retail agriculture market to take care of majority of small-holders. These GrAMs, electronically linked to e-NAM will provide farmers facility to make direct sale to consumers and bulk purchasers. This will provide farmers with more price transparency and exempted from regulations of 585 Agriculture Produce Market Committees. So far 470 such committees have been connected to e-NAM network and rest will be connected by March 2018. The integration of horizontal and vertical rural markets with global markets and setting up an institutional mechanism to promote export of agri-based commodities are part of the government's efforts to bring changes in the system. The government will create an institutional mechanism, with participation of all ministries concerned, to develop appropriate policies and practices for price and demand forecast. This paradigm shift in market would help small- and marginal-farmers to get adequate remuneration for their produce.

Remunerative prices to farmers: Minimum Support Price (MSP) is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices. The

minimum support prices are announced by the Government of India at the beginning of the sowing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices. MSP is price fixed by Government of India to protect the producer - farmers - against excessive fall in price during bumper production years. The minimum support prices are a guarantee price for their produce from the Government. The major objectives are to support the farmers from distress sales and to procure food grains for public distribution. In case the market price for the commodity falls below the announced minimum price due to bumper production and glut in the market, government agencies purchase the entire quantity offered by the farmers at the announced minimum price. Indian agriculture is undergoing agrarian crisis from last years. To avert this crisis, government has recognized that the major challenges the agricultural sector faces is transferring remunerative prices to farmers on their produce and steps to address them are in place. The *Niti Aayog*, after discussions with state governments, would put in place a mechanism to make sure the benefits of the minimum support price reach every farmer.

In short-term, these are quick fix to agrarian crisis. *The Economic Survey 2017-18* noted that Agricultural R&D is the main source of innovation, which is needed to sustain agricultural productivity growth in the long-term. Modern crop breeding and advances in management practices have contributed substantially to the annual gain of 0.8 to 1.2% in crop productivity. Nevertheless, this current rate of improvement is not sufficient to keep up with food and biofuel demands for the projected population in 2050. Achieving linear progress to aim for 2% genetic gain is a huge challenge when crop yields have plateaued in some regions. Sustained yield increases will also be hampered by extreme weather and the occurrence of more aggressive strains of pests and pathogens. Hope

lies in generation of cutting edge science and technology through agricultural R&D which is currently lagging in National Agricultural Research System. The Economic Survey 2018 says that the actual expenditure of Department of Agricultural Research and Education/ Indian Council of Agricultural Research has increased from ₹ 5,393 crore in 2010-11 to ₹ 6,800 (BE) crore during 2017-18. This includes implementation of 7th Pay Commission of the employees in the Council.

Higher allocation for long-term irrigation fund

The single greatest constraint for small farmers to have higher agricultural productivity and diversification is water control. With an increasingly erratic rainfall, both for supporting during the rainfall gaps in the monsoon crop and for water availability in winter and summer, it is critical as it defines the difference between viable and difficult farming. Most rainfed large farmers are worse off than smaller, but irrigated farmers. Carrying forward the work it started in the Union Budget two years ago, the government has made an additional allocation of almost ₹ 1,000 crore for extending and strengthening irrigation facilities, and improving groundwater management in rural areas. In real terms, the Budget for the water resources amounts to a total of ₹ 1,200 crore, over 80% (₹ 995 crore) of which has been earmarked for efficient extraction of groundwater, especially in some selected backward districts, and for command area development of irrigation projects in last year. A higher allocation towards Long-term Irrigation Fund (LITF) was announced. The LITF is a dedicated fund in NABARD with initial corpus of ₹ 20,000 crore announced in Union Budget 2016-17. Its objective is to fund and fast track the implementation of incomplete major and medium irrigation projects in the country. In the Union Budget 2017-18, the fund size is increased by another ₹ 20,000 crore, taking the total fund size to ₹ 40,000

crore. These irrigation reforms would lead to rapid development and penetrations of farm irrigations systems under Prime Minister *Krishhi Sinchai Yojana-Har Khet ko Pani* especially in 96 irrigation deprived districts besides boosting fisheries and animal farming. This would help to reduce dependency on weather and monsoons. The Centre will work with the state governments to facilitate farmers for installing solar water pumps to irrigate their fields. Nevertheless, the fresh impetus on irrigation would also see money flowing in for works related to command area development in projects other than the chosen districts. There are 96 districts where water-table is good, level of extraction is low and irrigation facilities are poor. These are mainly backward districts, many of them in the Left-Wing Extremism-affected areas. The money would be used for subsidising equipment like borewells, solar pumps or electricity for farmers to improve groundwater extraction and facilitate groundwater irrigation. The ongoing project to develop a real time Water Resources Information System (WRIS) also received a big boost. The WRIS project seeks to create and maintain a consolidated and updated database of all kinds of water resources in the country. The National Water Mission, which is preparing a strategy to deal with climate change impacts on water resources, has received a more than 50% jump in its budgetary allocation, mainly for research and development activities. From an allocation of ₹ 60 crore in 2016-17, it has gone up to ₹ 95 crore in 2017-18. The money is meant for expenditure on educational training and human resources development in water sector, and implementation of conservation practices. There is need to educate the farmers to build infrastructure in the village for rainwater harvesting to be completed within a specified time frame.

Operation green

For horticultural commodities, an MSP-like policy may not be very effective as these are highly perishable. Also, while agricultural

commodities procured by government are distributed to consumers under the Public Distribution System, there is no such provision for horticultural commodities. However, utilizing price stabilization fund, the government may participate in the market of perishable commodities by developing backward and forward linkages and proper infrastructure provisions for procurement and distribution. The provision for procurement through farmer producer organizations (FPOs) may also prove to be a remarkable move as this will create competitive advantage and boost infrastructure.

At the same time, it should also be considered that these FPOs are private companies and while to benefit the farmers. FPOs are corporate entities which are registered under Section 465 (1) of The Companies Act of 1956. While they work under the principles of a cooperative society, their registration under The Companies Act provides more accountability and professionalism. Like corporates, FPOs, which are also referred to as Farmer Producer Companies (FPCs), are required to file returns. The introduction of the Goods and Services Tax (GST) had hit these farmers' bodies hard.

The government has acknowledged the positive role played by Farmer Producer Organizations (FPOs) and announced 100% tax deduction (taxi holiday) in respect of their profit derived from such activities which includes income from marketing of agricultural produce, purchase of agricultural implements, seeds etc, or processing of agricultural produce for five years from financial year 2018-19 for companies with annual turnover below ₹ 100 crore. This addresses a long pending demand to help promote small agri-companies. This would bring small-small landholdings together in a compact area approach. This would help Indian agriculture in realization of economy of scale. This would not only reduce transaction costs but also lowered average cost per unit of production. Aptly, the Finance Minister proposed to allocate

₹ 200 crore for organized cultivation of highly specialized medicinal and aromatic plants and the organic farming by Farmer Producer Organizations and Village Producers' Organizations in large clusters, preferably of 1,000 ha each. This is path of making Indian agriculture more competitive working on cost cutting and improving quality of the produce in group action. On the lines of 'Operation Flood' a new Scheme 'Operation Greens' was announced with an outlay of ₹ 500 crore to address the challenge of price volatility of perishable commodities like tomato, onion and potato with the satisfaction of both the farmers and consumers. This would be possible through promotion of agriculture logistics from farm to fork.

Expansion in coverage of Prime Minister Fasal Bima Yojana

An insurance product introduced in risky agriculture has proved a boon to Indian farmers. The impact studies of PMFBY in the harsh and marginal environment in Rajasthan, Gujarat, Andhra Pradesh, Telangana etc deciphered 10 to 20% income savings of farmers due to loss of crops due to adverse climatic events. The experiences of this *Yojana* in assured irrigated regions are different. To cover the risk of farming, Government will expand the coverage of *Pradhan Mantri Fasal Bima Yojana* and the coverage under the scheme will be increased from 30% of the cropped area in 2016-17 to 40% in 2017-18 and 50% in 2018-19. For this, a provision of ₹ 9000 crore has been made. Further, the sum assured under this scheme has more than doubled from ₹ 69,000 crore in *kharif* 2015 to ₹ 141,625 crore in *kharif* 2016.

Information Technology in Agriculture

The agriculture has become knowledge intensive. The availability of desired quality and adequate information at right time to farmers is not only going to play a big role in realization of potential of farming but after post-harvest management operations. The literature reveals that

increase in net returns from use of information is around 9% but it is more in high value agriculture. To realize this potential, the Government proposes to set up five lakh wi-fi hotspots furthering Broadband access in villages, to provide net connectivity to five crore rural citizens. The Finance Minister allocated ₹ 10,000 crore in 2018-19 for creation and augmentation of Telecom infrastructure.

Krishi Sampada Yojana

PM Kisan Sampada Yojana is a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet. It will not only provide a big boost to the growth of food processing sector but also help in providing better returns to farmers and is a big step towards doubling of farmers income, creating huge employment opportunities especially in the rural areas, reducing wastage of agricultural produce, increasing the processing level, promote establishment of specialized agro-processing financial institutions in this sector and enhancing the export of the processed foods. The government has proposed to provide support for agri-logistics, processing facilities and professional management for delivering such items directly to consumers. The food processing sector is growing at the rate of 8%/year. This *Yojana* is expected to handle 334 lakh MT agro-produce valued at ₹ 1,04,125 crore, benefiting 20 lakh farmers and generating 5,30,500 direct/indirect employment in the country by 2019-20 (mofpi.nic.in). As expected, the budget has been doubled from ₹ 715 crore in 2017-18 to ₹ 1,400 crore in 2018-19 to push the Food processing industry which would eventually be the major off takers of farm produce. Separate provisions was announced for the development of aquaculture and animal husbandry with increasing the allocation to these segments. Urgent need is felt not only to develop a comprehensive policy covering issues such as logistics, verification and traceability

etc to promote export of agriculture commodities but also initiate the process of identifying countries where there is a maximum import demand for agricultural goods. Though a lot would depend on the implementation of the schemes, the current allocation indicates a boost to rural incomes which would ripple through to farm inputs and rural consumption.

Agritech start ups

“The farmer has to be an optimist or he wouldn’t still be a farmer”. Then, there are challenges like how to increase crop production, improving the nutritional value of the crops, reduction in input prices for farmers, improving the overall process-driven supply chain, reducing wastage in the distribution system and enabling connectivity of farmers with the masses by interlinking the consumer and producer.

India holds the record for the second-largest agricultural land in the world. The foremost issue is the increasing difficulty of farmers to sustain themselves. Increasing productivity to increase the farmers’ income is the sustainable solution. This could be possible only when policy makers ensure greater application of technology to increase agricultural yield, the nutritional value of the crops, efficient utilization of resources, reduction in input cost, improving the overall process-driven supply chain, reducing wastage in the distribution system, growth in agricultural wages, remunerative and stable prices and also enabling connectivity of farmers with the masses by interlinking consumer and producer. The startups in this space are also leveraging technology from fork to farm. For instance, launching an accelerator ‘Gastrotope’ to boost the startups working in the ‘farm to fork’ ecosystem in India. The literature reveals that there has been a huge gap in productivity, efficiency and technology implementation. In the light of doubling an average farmers’ income by 2022, agritech become the new buzzword in the Indian startup ecosystem in 2017. The entrepreneurial activity in Indian

agritech in 2017 reached a new peak with more than 300 agritech startups were in operation for solving critical problems faced by stakeholders in agriculture sector. They are now able to address input challenges of agriculture in India from the beginning. The scope of the digital agriculture services market is going to expand in future thus provides non-linear-scale opportunity for agritech startups in the country. This increase in income of farmers would be translated to invest more in agri-start ups.

SUMMARY

The Indian farmer faces more marketing problems than production of the crops. Middlemen are the bane of Indian agriculture. The information needs to be disseminated to stakeholders rigorously at regular period to take decisions for sale of the produce. The staff of the line department be delegated the job of tying up farmer produce with appropriate regional markets and the Processing Industry for the best price realization. Cultivation of high value agriculture/ crops in clusters bring advantages of scales of operations and can spur establishment of entire chain from production to marketing, besides giving recognition to the districts for specific crops. A farm to fork approach entails several activities which fall in jurisdiction of several ministries that generates impediments and risks in agricultural management. Budget will consolidate gains with focus on strengthening agriculture economy and ensure benefits reach eligible beneficiaries. The intent of government on implementation of a series of fundamental structure reforms in agriculture is going to overcome the agrarian crisis to an extent. However, the magnitude of benefits of reforms will become evident with time only.

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