

A BOOST TO ORGANIC FARMING

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Viability of agriculture and its accelerated growth is vital for employment generation and food security of the country. Reviving the farm sector is a major challenge for the Central Government as it still accounts for about 54.6 per cent of total employment (Census 2011). The sector needs increased budgetary support as there has been a decline in the absolute number of cultivators, which is unprecedented, from 12.73 crore to 11.87 crore (Census 2011). Further, the present trends in the farm sector are also not encouraging as uncertain monsoon rains continue to cripple the agriculture growth which was a dismal 1.1 per cent in 2015-16.

Under these circumstances, Union Budget 2016-17 rightly focused its attention on agriculture and rural sector. A number of new initiatives were announced and budgetary allocations for rural development and farmers' welfare were hiked substantially. Budget also gave a boost to organic farming through various schemes and initiatives. In this article, we would focus on this organic part of the Budget 2016-17.

Promotion of Traditional Farming to Rejuvenate Agriculture

Paramparagat Krishi Vikas Yojna (PKVY) or programme for promotion of traditional farming is important to rejuvenate Indian agriculture. This scheme was started in 2015-16 with an allocation of Rs.300 crore. This scheme will provide the required impetus to the promotion of organic farming. This is a cluster based programme to encourage groups of farmers to take up organic farming. Under PKVY, fifty or more farmers will form a cluster having 50 acre land to take up the organic farming. Target in next three years to have 10,000 clusters formed, covering 5.0 lakh acre area under organic farming. There will

be no liability on the farmers for expenditure on certification. Under this scheme farmer will be provided Rs. 20,000 per acre in three years for seed to harvesting of crops and to transport produce to the market.

Our country is rich in all bio-resources required to promote organic farming. Hence it would be promoted by using traditional resources and the organic products will be linked with the market. It will increase domestic production and certification of organic produce by involving farmers.

In 2016-17, allocation under PKVY has been increased to Rs.412 crore. In addition, other continuing programmes and schemes of the Central Government like National Mission for Sustainable Agriculture (NMSA)/ *Paramapragat Krishi Vikas Yojana* (PKVY), *Rashtriya Krishi Vikas Yojana*



(RKVY), Mission for Integrated Development of Horticulture (MIDH), National Mission on Oilseeds & Oil Palm (NMOOP), Network Project on Organic Farming of ICAR are also helping in promotion of organic farming. The umbrella programmes under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), have also been expanded to cover various other programmes which will help to increase the agriculture production. Under MNREGA, 5 lakh farm ponds

and dug wells in rain fed areas to be taken up. Further, there is planning for creation of 10 lakh compost pits for organic manure.

In India, the traditional farming advocates for the use of farm generated bio-resources. It emphasizes the use of climate resilient local landraces of crop seeds. It advocates the use of mixed cropping and good soil health. Nutrients for the crops were achieved from the farmyard manure and composts. In managing pests and diseases in crops, the traditional soil solarisation, use of botanical extracts, cow urine and wood ash were in use. Today, there is need to adopt such measures to get rid from the toxicity of fertilizers and chemical pesticides. There is need to fine tune the traditional package and practices of crop production with the available knowledge inputs about the potentialities of the bio-resources. The traditional knowledge base can be strengthened with the use of microbes as fertilizers and pesticides. Other eco-friendly approaches of pest and disease management, can also be integrated to make crop production technology more effective.

India is bestowed with abundant potential to produce all varieties of organic products due to its various agro climatic regions. The total area under organic certification in 2013-14 was 47.2 lakh hectare. Cultivated area under certified organic farming has grown almost 17 fold in last one decade (42,000 ha in 2003-04 to 7.23 lakh ha in 2013-14). Need of the hour is to use the bio-resources, that India is bestowed with, judiciously. India has plenty of scope for bio-fertilizers and bio-pesticides which are the main constituents of organic farming. Crop protection is the main concern in the organic production. There are more than 200 plant species in our country, which can be used effectively for the management of diseases and pests. Among such plants, *neem* is one of the most important tree which has a great potential for disease and insect-pest management in India and other parts of the world. This single tree has such potential that it can meet more than 50 per cent requirement of our pesticides in crop production. India has more than 1.8 crore *neem* trees with seed potential of 4,14,000 MT which can yield 85,000 MT of oil and 3,30,000 MT of oilcakes. *Neem* pesticides have been reported to control more than 200 species of insect-pests,

nematodes and also effective against more than 50 diseases.

Growth of Organic Farming in India and the Global Status

Organic farming is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. Organic agriculture is practiced in 172 countries around the world and 4.37 crore hectares of agricultural land is managed organically by some 23 lakh farmers. The global sales of organic food and drink reached 80 billion US dollars in 2014. Australia is the country with the largest organic agricultural area (1.72 crore hectares, with 97 per cent of that area used for grazing), followed by Argentina (31 lakh hectares) and the United States of America (22 lakh hectares). The United States is the leading market, followed by Germany, France and China.

The Government of India has implemented the National Programme for Organic Production (NPOP). The main problem with organic production is the certification and certification standards. The national programme involves the accreditation programme for Certification Bodies, standards for organic production, promotion of organic farming etc. As export is the main target of organic production in the country, our certification standards should be in conformity with the world standards so that there is no hindrance to our organic exports.

It is heartening to know that the NPOP standards adopted by India for production and accreditation system have been recognized by European Commission and Switzerland as equivalent to their standards. Similarly, US Department of Agriculture has recognized NPOP conformity assessment procedures of accreditation as equivalent to that of US. With these recognitions, Indian organic products, duly certified by the accredited Certification Bodies of India, are accepted by the importing countries. India is having a total of 11 certification agencies which are accredited by the Agricultural Products Export Development Agency (APEDA) for inspection and certification of the organic agricultural products. The certification agencies may inspect the records and functioning of organic farms from time to time to ensure strict compliance to the norms.

A systematic research in organic farming can help further reduce the farming cost. The government agencies, private sector and producers have to play a symbiotic role in promoting and facilitating organic production and marketing. The important thing is that the nitrate content of organic fields is significantly lower due to avoidance of pesticides and nitrogenous fertilizers application in feed and fodder. Organic livestock farming releases much less carbon dioxide (CO₂).



Presently, India produced around 1.24 million MT of certified organic products which includes all varieties of food products namely Sugarcane, Cotton, Oil Seeds, Basmati rice, Pulses, Spices, Tea, Fruits, Dry fruits, Vegetables, Coffee and their value added products. The production is not limited to the edible sector but also produces organic cotton fiber, functional food products etc. Among all the states, Madhya Pradesh has covered largest area under organic certification followed by Himachal Pradesh and Rajasthan.

Organic value chain development in North East Region

The government has launched a value chain based organic farming scheme, called the Organic Value Chain Development in North East Region. The scheme aims at development of certified organic production in a value chain mode to link growers with consumers and to support the development of entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing, marketing and brand building initiative.

Under this scheme, a replicable end-to-end organic value chain models will be developed in each of the north eastern state with the integration of growers, handlers, processors

and market facilitation agencies. Further, 30-50 thousand farmers of north-eastern region (NER) will be empowered through the creation of about 100 farmer producer companies and equip such companies with full value chain under its ownership. Efforts will be made to convert subsistence farming to commercial organic farming with end-to-end facilities. This scheme aim to make North-eastern states as major suppliers of organic commodities for national and international markets. Crop production system will be improved to ensure higher productivity with better profitability. Organic parks/zones will be developed with facilities for collection, aggregation, value addition, processing, storage and market-linkages for specific commodities requiring capital intensive technology. Organic products produced in the NER will be developed as brands/labels through brand building and facilitating stronger marketing access under the ownership of growers' organizations/ companies.

The emphasis is on value addition so that organic produce grown in these parts find domestic and export markets. The North East Region is one of the focus regions of Government of India owing to its strategic location, cultural diversity and extremely rich agriculture and horticulture resource. The north eastern hill region of India consists of eight states viz., Assam, Nagaland, Mizoram, Meghalaya, Tripura, Manipur, Sikkim and Arunachal Pradesh. These States were identified for promoting organic farming at the early stage when the organic movement started to pick-up.

There is lot of scope for organic agriculture in the hills especially in the north eastern region of India. First, the use of inorganic fertilizers and chemicals is meagre in the region. The farmers of the region, in general and hill farmers in particular are having apathy towards use of agro-chemicals. Secondly, farming on the hills remained based on low input-low risk- low yield technology and the average yield of most of the crops remained far behind. The strength of north eastern hilly region for promoting organic farming can be summarized as under.

North Eastern Region (NER) is home to some niche crops like Assam lemon, Joha rice, medicinal rice and passion fruits which have high market

demand. NEER accounts for 45 per cent of total pineapple production in India and an Agri-Export Zone (AEZ) is already set up in Tripura. Sikkim is the largest producer of large cardamom (54 per cent share) in the world. NEER is the fourth largest producer of oranges in India. Best quality ginger (low fiber content) is produced in this region and an Agri-Export Zone (AEZ) for ginger is established in Sikkim. There are many advantages for organic farming in the North Eastern Region. Extent of chemical consumption in farming is far less than the national average. Approximately 18 lakh hectare of land in NEER can be classified as "Organic by Default". There is thin population density per square kilometre. There is dependence of mid and high altitude farmers on within farm renewable resources which are important input for organic farming. In addition, there are time tested indigenous farming systems and use of indigenous technical knowledge in agriculture.

Despite the immense potential of organic produce in the region, there are many structural challenges in the form of lack of post harvest technology, supply chain, branding and certification of produce, lack of private investment and appropriate aggregation model for marketing of produce. It requires cold chain, storage facilities, processing facilities like drying units for ginger, turmeric, pineapple etc. There is need to create broad infrastructure with the development of export zones, packing houses with facilities of sorting, grading and packaging. Logistics and transport facilities are also important for early and timely access to the market. There is also need for creation of marketing infrastructure in terms of special economic zones, food parks etc.

Sikkim-The Role Model in Organic Farming

Sikkim has become India's first fully organic state by implementing organic practices on around 75,000 hectares of agricultural land. Sikkim achieved fully-organic status in December, 2015 and Prime Minister formally announced this at a sustainable agriculture conference in Gangtok on January 18, 2016. It was 12 years ago in 2003 when Sikkim decided to become an organic farming state through a declaration in the legislative assembly. Later the entry of chemical inputs for farmland was restricted and their sale

banned. Farmers therefore had no option but to go organic. This shows Sikkim Government's concern for preservation of the sensitive ecology and environment. The state with an average fertilizer consumption rate of 5.8 kg per ha, is the third lowest fertilizer consumption state in the country. Kerala is another State with mission to convert the farming practices to organic.

Organic farming began finding momentum in Kerala since the unveiling of a policy in 2010 that set the goal of converting the entire agricultural production in the State to organic within 10 years. As per the announcement of the State Government, agriculture will take the organic route by the end of 2016. Production of bio-control agents, bio-pesticides and bio-fertilisers, however, is yet to gain momentum in the public sector organisations. Stepping up their production is important to meet the needs of farmers and give a big push to the organic farm sector. At different levels, however, efforts are moving in right direction. In addition, States like Uttarakhand, Himachal Pradesh are also making good efforts to promote organic farming with accelerated efforts of the respective governments.

In this budget a new scheme, 'Rashtriya Gram Swaraj Abhiyan' has also been proposed with allocation of Rs. 655 crore. The scheme will help Panchayat Raj Institutions deliver Sustainable Development Goals. This scheme should also emphasize on harnessing natural resources so that farmers can make use of these resources in enhancing agriculture productivity. Farmers can be trained in making of vermin-compost, bio-pesticides so that organic farming is popularized.

In the last, we have to remember that agriculture needs priority by ensuring continuous infusion of investment in the form of technology and capital so that farmers are not constrained. The Budget 2016-17 reassuringly does that. It would certainly help India emerge as lead producer of organic products.

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