

TRANSFORMING INDIAN AGRICULTURE BY BOOSTING FARMER'S INCOME – CHALLENGES AND WAYS FORWARD

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ABSTRACT

The gigantic task of boosting farmer's income needs a holistic approach to transform and modernize Indian agriculture. Agriculture is prone to erratic climatic incidents and insufficient rainfall making the farmer's future uncertain. 50 percent of the produce is wasted due to inadequate and improper cold storage facilities. It is indeed that even if we attain high goals of good quality production it will be of no use if there are not efficient storage facilities. Agriculture is the backbone of our nation and is a must to achieve the sustainable development goals. Investing in this sector also impinges positively on non-agricultural sectors. Now it is critical to recognize the role of investment in this sector. For this both public as well as private investments must be encouraged as alone no one can efficiently drive this magnificent sector. To achieve the total welfare of the farmers it is now implicit to adopt facilitative policies and implementing their by critically evaluating the lacunas hidden behind. We need good governance rather than good governments. The active participation of states is needed to achieve the goal. In the long run we require research towards robust inputs like seed varieties, effective extension practices to get the farmers competitive market prices. The government's decision to create e-NAM is a good initiative but needs to be supervised vigilantly. Cold chain facilities need to be augmented near the farms. Both government and industries need to work in collaboration to improve the economic benefits of the farmers.

Key Words: Agriculture, Farmer, Income, GDP, Sustainable Development, Government

INTRODUCTION

India holds the second largest agricultural land (179.9 million hectares) in the world. Agriculture being the largest source of livelihood about 48 percent of the population of the country, also caters to food security of the nation, generate exportable surpluses, provides wage goods in non-agriculture sector, raw materials for the industrial sector and contributes significantly to GDP i.e. 13.7 percent. However, in terms of contribution of GDP, the trend has been declining; farm size and cropping pattern are also undergoing structural changes. Despite its significant role in economy, a number of issues challenge its sustainability and agrarian crisis has threatened as well as questioned the potential of the incredible India. In this article we will be discussing the various challenges faced by Indian Agriculture sector and what remedies have been done by the government and other ways forward need to be done.

Since the Green revolution, the nation's broad focus has been on achieving higher food production and assuring food security which has been done with satisfaction. But is it all what we wanted or desired? Has the green revolution brought only wellness with it or something else also? The socio-economic impact has not been very encouraging with degrading soil, lowering water table, indebted farmers and high cases of ailments like cancer in Punjab. The miserable condition of farmers throughout the country and increased suicide cases has questioned our economic as well as social growth. Is this all we wished for? Are we actually moving towards sustainable development?

According to Agricultural census (2011) the number of agricultural workers in the country were 26.3 crore (11.87 crore of cultivators and 14.43 crore of labourers) while that in 1951 the number was 9.72 crore (6.99 crore cultivators and 2.73 crore of labourers) (Dalwai, 2017). It clearly indicates that the number of cultivators has decreased and the number of labourers has increased over this period. The Gross value Added (GVA) of agriculture in the country has declined from 17.8 percent (2012-13) to 15.3 percent (2015-16). The number of farmers below poverty line (BPL) in 2011-12 was 22.5 percent. The regional variations in income also exist. In the same year, the farmers below BPL in Punjab, Haryana and Kerala were as low as 0.5, 3.2 and 4.3 respectively while that in Jharkhand, Chattisgarh, Assam and Odisha were 45.3, 35.1, 33.0 & 32.1 respectively (Dalwai, 2017). As per 2013 survey, the average monthly income of agricultural household was Rs. 6,426/- (Chadrashekhar and Mehrotra, 2013). The Government of India in its budget 2016-17 committed to double the income of farmers by 2021-22. This can be achieved only when states are able to register high growth rates consistently. It is now indeed to focus on post-production management to get higher monetary returns.

CHALLENGES FACED BY THE AGRICULTURE SECTOR

The use of fertilizers in most of the states is sub-optimal and use of certified quality seeds is low. More than 30 percent of area grown under cereals uses traditional varieties for cultivation. More than one crop per year is grown on less than 50 percent cultivated area. Lack of advanced technologies is another big hurdle (Chand, 2017). Half of the cultivated area is not properly irrigated and many regions depend on seasonal irrigation, lacking proper irrigation facilities. Agricultural production is mainly restricted to staple food due to which high value crops like fruits and vegetables with high productivity are grown lesser. Post-production management is poor. More than 40 percent of the produced is wasted due to inadequate transportation, storage and processing facilities (Dhanai, 2017). Farmers do not get sufficient price for their produce. The government announces Minimum support price (MSP) before every harvesting period but the farmers still get 10-20 percent lower than the MSP (Dhanai, 2017). So, there is no use of such a big hike in MSP when the farmers are deprived of price guarantee. The present system of marketing is exploitive. Middlemen make the situation worse for the farmers. The objective of APMC Act 2003 was to dismantle excessive regulation and control over markets, facilitate direct sale purchase, create more options for sellers, dismantle market collusion by local traders and attract investments in agricultural markets (Chand, 2017). But the act remained insignificant. Some states didn't change it, while some didn't notify the rules and restricted to tiny fraction of produce even if implemented. All these challenges hinder the growth of agriculture sector. People getting less interested in this sector now a days and farmers find their future as questionable. Studies have shown that farmers don't want to continue farming because they don't find it profitable at all (NSS report, 2003). The size of land holdings is decreasing. At present, 86 percent of the number of land holdings is present under marginal and small farmers and the average size of operational holdings is 1.15 hectares (2010-11 Agricultural census). It is not like that government has ignored the development of this sector but the implementation of policies has not been very impressive. There are lacunas in the way policies and programmes are implemented. Though even after spending much by the government in this sector, the results are not worthy. Let's have a look what so far the government has done and what effective measures can be taken to boost the soul sector of our nation. Figure no. 1 shows various challenges faced by Indian agriculture.



Figure 1: Various challenges faced by Indian agriculture

Ways of boosting farmer's income and revamping the agriculture sector

The gigantic task of boosting farmer's income needs a holistic approach to transform and modernize Indian agriculture. In this context, the followings ways can be chosen to attain the above said goal.

Use of High value agricultural crops (HVCs)

Economists propound that shifting to HVCs can increase the income (Chand, 2017). However, large scale adoption of this strategy i.e. shift from foodgrains to HVCs could endanger the food security of the nation because it will disrupt the staple diet. So, diversification of agriculture is suggested rather than full conversion. Also this conversion requires good credit to be available. Dahdhich (2017) suggested for smart farming and credit support farming to be another approach to boost farmer's income.

Food processing industries and value addition at farm level

Simple agro-processing industries at the farm level can be an alternative. Like tomato farmer can sell some part of the produce to market while some part of the produce can be used for conversion to ketchup at the farm. In the same way, sugarcane farmer can use some part of the produce for conversion to jiggery (Singh et al., 2017). It also generates a source of employment in the rural areas. Again, credit infusion is required here for working capital and marketing skills. The government of India allocated Rs. 10 lakh crore in 2017-18 budget through commercial, cooperative and rural banks. Expanding access of credit to small, marginal and tenant farmers can increase the income of agricultural households (Narayanan, 2015). Introduction of core banking in the cooperative banks would lead to higher credit flow in rural sector.

Role of Farmer Producer Organisations (FPOs)

FPOs have created some very impressive success stories in the recent times and they are particularly important for small holders agriculture. FPOs create forward and backward linkages for agricultural produce. The states should increase the number of FPOs for better outcome. SFAC (small farmers agribusiness consortium) and NABARD (National bank for agriculture & rural development) are doing good efforts in this concern. Various programmes are running under them to support farmers.

Use of quality seeds and planting materials

Good quality and judicious use of inputs like water, seeds, fertilizers and pesticides is the need of the hour. Seeds are the critical determinants of the agricultural produce. Manu Smriti says 'Good seed in good soil yields abundantly'. The success stories of green revolution HYVs (1960s-70s), hybrid crops like maize (2000s) all had good planting materials as their primary driver (Sandhu and Sharma, 2017). There is also need to enhance seed replacement rates (ratio of total cropped area with certified seed to farm saved seeds). Regulatory mechanisms need to be tightened to discourage sale of spurious seeds to the farmers. There should be penalty system for the seed companies for the poor performance of the seeds sold. And also compensatory provisions for the farmers need to be assured. Shifting to organic farming can increase the quality of produce and also reduce the cost of cultivation.

Tissue culture technique can be exploited as the planting material is free from pests, fungal and bacterial pathogens and can be multiplied year-round under sterile conditions. Though it is a costly affair but can overcome the conventional method.

Safe use of genetically modified (GM) crops is appreciated as it will also enhance the food security of the nation by increasing the production as well as quality. Bt cotton is the success story we all have heard about. GM brinjal, mustard, corn, tomato, potato, rice, cauliflower, chillies, black pepper, cabbage etc are also on the way.

National Agriculture Market: New horizon for agri-business

NAM is an e-platform for farmers which will network the existing APMC mandis. It removes inter-state barriers in moving the farm produce, provides physical logistic support to farmers, and amends APMC act and a single window service for all APMC related information and services. The government of India launched NAM on 15 April, 2016 to connect e-mandis across various states. SFAC is the lead promoter of NAM which is a registered society of Department of Agriculture, Cooperation & Farmer welfare under Ministry of Agriculture and Farmer welfare. NAM removes asymmetry between buyers and sellers and promotes real time price discovery, transparency in auction process, provides competitive price to the framers for their produce, online payment and better quality produce at reasonable prices to the consumer (Raghuvanshi, 2017). Also, licensing process for traders/buyers and commission agents is liberalized without pre-condition of physical appearance or possession of shop in the market. The license is valid in all the markets in the state. There is single point levy of market fees and also provision for soil testing laboratories in the mandi. Till now, 417 markets from 13 states have been integrated with NAM according to press information bureau. The target is to increase the number to 585 by 2018.

Pradhan Mantri Fasal Bima Yojana (PMFBY) revamped

Agriculture is prone to erratic climatic incidents and insufficient rainfall making the farmer's future uncertain. The government of India has provided the farmers with crop insurance scheme for the last two decades. But it seems to be quite inadequate. The new scheme was implemented from Kharif season of 2016. It offers:-

The premium paid by the farmers had been reduced to 2 percent of the insured value for kharif crop and 1.5 percent for the rabi crop. In the earlier schemes, National agricultural insurance scheme (NAIS) and Modified National agricultural insurance scheme (MNAIS) (both discontinued) the premium paid was 3.5-8 percent. For the horticultural crops it is fixed at 5 percent of the sum assured.



Figure 2: Ways to boost up agriculture sector

There is no upper limit on government subsidy provided by the centre and state governments under the new scheme even if the balance premium is 90 percent (DAS, 2017). In the earlier schemes, there was capping at the premium rate which resulted in low claims for the farmers. Now the capping has been removed. More than 3.6 crore farmers have been covered under the scheme. Rs 13,396 crore has been allocated in the 2017-18 budget of the government. The crop insurance has been assured from sowing to post-harvest season if any loss incurs but in the earlier scheme it was limited to post-harvest loss only. The implementation of this mega scheme required empanellement of state owned Agriculture insurance company (AIC) with 10 private companies including ICICI-Lombard, General Insurance, HDFC-ERGO and SBI General Insurance.

Efficient cold chain networks

As mentioned earlier more than 50 percent of the produce is wasted due to inadequate and improper cold storage facilities. It is indeed that even if we attain high goals of good quality production it will be of no use if there are not efficient storage facilities. Understanding the urgent need of this, the government has announced several policies for cold chain infrastructure and also has allowed 100 percent FDI in this sector. The cold chain infrastructure includes packaging and cooling of fresh food products, short or long term ware housing of chilled or frozen foods, distribution and marketing to wholesale and retail markets (Dhanai, 2017). If we talk about the advantages of cold chain infrastructure it offers various good things like lessens perish ability of the products, lessens shriveling, slows ripening, increases resistance to ethylene action, decreases activity of micro-organisms, reduces loss of texture, flavor and nutrients. Cold chain is a marketing supply link and directly impacts sustainability of the farmers. Figure no. 2 shows ways to boost up agriculture sector.

CONCLUSION AND WAYS FORWARD

Agriculture is the backbone of our nation and is a must to achieve the sustainable development goals. Investing in this sector also impinges positively on non-agricultural sectors. Now it is critical to recognize the role of investment in this sector. For this both public as well as private investments must be encouraged as alone no one can efficiently drive this magnificent sector. To achieve the total welfare of the farmers it is now implicit to adopt facilitative policies and implementing their by critically evaluating the lacunas hidden behind. We need good governance rather than good governments. The active participation of states is needed to achieve the goal. In the long run we require research towards robust inputs like seed varieties, effective extension practices to get the farmers competitive market prices. The government's decision to create e-NAM is a good initiative but needs to be supervised vigilantly. Cold chain facilities need to be augmented near the farms. Both government and industries need to work in collaboration to improve the economic benefits of the farmers. Without agriculture the nation is soulless. The nation renounced earlier as 'Sone Ki Chidiya' needs to be reformed deliberately to get more and more prosperous in all aspects without ruining its high ethical values known throughout the world and realizing our dream of Incredible India!

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