

Enhancing average Indian Farmer's Income: An IT Approach

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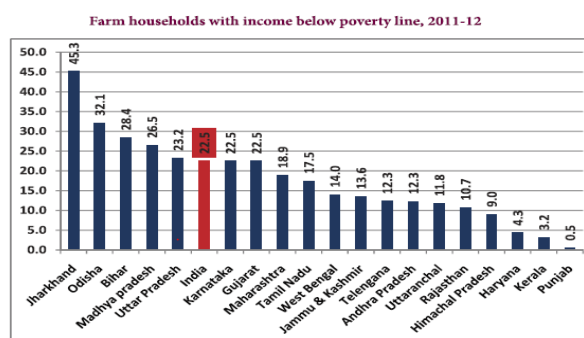
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Abstract- The Union Finance Minister, Shri Arun Jaitley while presenting the General Budget 2017 announced that NDA Government intends to go beyond Food Security and give back a sense of income security to Indian farmers. Thus, the Government of India intends to double the farmers' income by 2022. So, we need to find what all steps can be implemented by the Government which may help us to achieve the vision of Doubling the Income of Indian Farmers. This Research Paper contains brief analysis of the factors which will help in attaining the desired goal.

Keywords—Irrigation, selling price, crop insurance, livestock

I. INTRODUCTION

India ranks second worldwide in farm output. Agriculture and allied sectors like forestry, logging and fishing accounted for 17% of the GDP and employed 49% of its total workforce in 2014. This indicates that half of the population is just contributing only 17% of GDP. Indian agriculture has growth at less than 2% CAGR (Compound Annual Growth Rate) in the last five years. Also, in the past policies of government the emphasis has been on agricultural output, rather than on farmers' incomes. The country also witnessed a sharp increase in the number of farmers suicides during 1995 to 2014 - losses from farming, shocks in farm income and low farm income are identified as the important factors for this. Highly fluctuating farm income is the main reason behind detrimental effect on the interest in farming and farm investments, and is also forcing more and more cultivators, particularly younger age group, to leave farming. This can cause serious adverse effect on the future of agriculture in the country.



Source: Estimated from unit level Consumption Expenditure Survey data 2011-12, NSSO.

II. WHY SHOULD THE INCOME BE DOUBLED?

The policy of past Governments for development of the agriculture sector in India has focused primarily on raising agricultural output and improving food security.

The policy paid dividends as the country could address severe food shortage that emerged during mid-1960s. During the last half a Century (1965 to 2015), since the adoption of green revolution, India's food production multiplied 3.7 times while the population multiplied by 2.55 times.

Growth in output brings similar increase in farmers' income but in many cases farmers' income did not grow much with increase in output. Thus, the overall result has been that farmers' income remained low, which is apparent from the incidence of poverty among households of farmers and agriculture worker. The NSSO data on Consumption Expenditure Survey for year 2011-12 reveals that more than one fifth of rural households with self-employment in agriculture as their principal occupation were having income less than the poverty line.

The income of Indian Farmers' remained low in relation to income of those working in the non-farm sector. During early 1980s, farm income per cultivator was just 34% of income of a non-agriculture worker. The past four years (2012-13 to 2015-16) again witnessed deterioration in relative income of farmers. Currently the Ratio of income per non-agriculture worker to income per cultivator stands 3.12 which mean that non-agriculture workers were earning thrice as when compared to farmers or agriculture workers.

III. GOVERNMENTS STAND ON THIS ISSUE

Realising the need to pay special attention to the plight of farmers the Central government changed the name of Ministry of Agriculture to Ministry of Agriculture and Farmers Welfare in 2015. It is apparent that income earned by a farmer from agriculture is crucial to address agrarian distress and promote farmers welfare.

The Government has showed prudence and The Finance Ministry has allotted Rs. 35,984 crores for agriculture and farmers' welfare and additional dedicated Long-Term Irrigation Fund in NABARD with an initial corpus of Rs. 20,000 crores. Also, Government has motivated various institution to come up with various ideas and technology which can help us to achieve the envisaged dream.



IV. SETTING THE AGENDA

We may set the agenda and work on it. For that we need to ask questions which can be

- What is the period and targeted year for doubling the farm income?
- What is to be doubled, is it output, value added, or income earned by farmers from agricultural activities?
- How to implement methods to increase income?

V. THE BENCHMARK

The Government has taken the benchmark as income for the agricultural year 2015-16 and has set the target year to double the current income by agricultural year 2022-23. If we want the income of farmers to be doubled by the year 2022-23, it will require an annual growth rate of 10.4 per cent. As per data, the per cultivator income has been estimated as Rs.1,20,193 at current market prices.

VI. WHAT CAN BE DONE TO INCREASE INCOME OF FARMERS?

We can focus on the below areas and try to implement better policies, ideas, innovation, technology and research along with including the farmers in the plan to enhance the income

A. Irrigation

In India, out of 141 million hectares of net cultivated area only about 65 million hectares are irrigated. In this regard, Government has announced 'Pradhan Mantri Sinchai Yojana', to be implemented in a mission mode to bring another 28.5 lakh hectares under irrigation. Also, we need to focus on better irrigation system which helps in saving the resources like water.

B. High Yielding Variety (HYV) Seeds and Soil Check

The

Government can focus on investing money in Agriculture Research to find out the best variety of Seeds which can be used to increase the output. Also, they should conduct the Soil check and let the farmers know which crop will be most suitable for their farm based on the soil quality check. Thus a "Better Seed sown in Appropriate Soil will result Better Income".

C. Electrification and Infrastructure

The Government need to focus on creating infrastructure which helps in supporting the farmer. Rural Electrification will help the farmer to invest in machinery and increase the output. Whereas Infrastructure like better Roads, Cold Storage and Warehouse facility will help to preserve the farm output and help in increasing the sale of farm yield. Indian Government has committed to achieve 100 percent village electrification by 1st May, 2018.

D. Minimum Selling Price

The Government must insure that the farmers get the remuneration which they deserve by creating policies which insure a minimum selling price for a commodity. This will help in stabilizing the income and growing the income.

E. Crop Insurance

The Government has implemented Pradhan Mantri Fasal Bima Yojana (PMFBY) which aims at supporting sustainable production in agriculture sector which helps in providing financial support to farmers suffering crop loss/damage arising out of unforeseen events and ensuring flow of credit to the agriculture sector.

Effect of online trading and UMP system on prices received by farmers in mandis in Karnataka

Commodity	Prices received by farmers Rs./quintal		Increase in 2015-16 over 2013-14 %	
	2013-14	2015-16	Nominal	Real@
Tur	3939	7672	95	16
Green gram	5308	7318	38	1
Black gram	3817	7976	109	12
Bajra	1261	1419	13	11
Copra	5189	9325	80	43
Turmeric	5937	7931	34	13
Jowar	1492	1774	19	6
Maize	1257	1356	8	6
Groundnut	3398	4346	28	14
Bengal gram	3057	4541	49	15
Weighted increase			39	13

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D. Enabling IT and Communication Technology

Critical weather prediction helps the farmers to sow the seed at the right time. Communicating better farming technique can help farmers to increase the farm yield. And, market data information helps farmers get best selling price for their crops and help farmers from getting exploited by the middle man.

E. Encourage Livestock Farming

The share of income from farming of animals grew from 4.3% in 2002 to 11.9% in 2012 as per NSSO. This will help farmer to create a secondary source of income.

VII. CONCLUSION

To Double the farmers income by 2022 is quite challenging but it is needed and is attainable. The increase in farmers' income is easily attainable through better price realization, efficient post-harvest management, competitive value chains and adoption of allied activities. Achieving this goal will reduce persistent disparity and alleviate agrarian distress, promote inclusive growth and infuse dynamism in the agriculture sector.

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