

# Atmanirbhar in Agriculture-Doubling farmers' income

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## Abstract

India is net food exporting country after feeding 1.35 billion people, yet farmers' income levels have not increased as expected. On one hand, granaries of public procurement agencies such as FCI are overflowing with rice and wheat, and on the other, more than half of the domestic consumption demand of edible oils is met by imports. Clearly, the production of agriculture commodities is not calibrated with emerging demand and this is one of the reasons for a low level of farmers' income. Increasing production of palm oil in the country offers an opportunity not just to move towards 'Atmanirbhar in Agriculture' but also has credible potential to augment farmers' income levels.

**Keywords:** Atmanirbhar, trade policy, crop geometry, national mission on edible oils (NMEO)

## 1. Introduction

Ensuring food security by increasing agriculture output has been the cornerstone of agricultural development policy in India. This policy objective has been broadly accomplished. Implicit in the strategy was an underlying assumption that benefits of increased production and productivity would have a trickle-down effect on farmers' welfare in terms of their income levels. However, the policy intent has not been fully realized and the farmers' incomes have not risen as expected. India can ill-afford to continue with tonnage-centric agri-policy i.e. emphasis on increasing production which may not necessarily increase the total income of farmers. The disparities in income levels between agriculture and non-agriculture sectors are huge. Accordingly, the country needs to shift from Green Revolution to Income Revolution for farmers. This is doable if we focus on the following broad measures:

- i. Creating an enabling policy framework
- ii. Intensification of farming, diversification to high value agriculture

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- iii. Synchronisation of Production with Demand
- iv. Stable Agricultural trade policy
- v. Transfer of Technology : Labs to Land
- vi. Agriculture Insurance to cover risks

### 1.1. Creating an enabling policy framework

The land is inelastic, yet activities can add income elasticity. There is a need to encourage the right and optimal kind of rural industrialization that captures more value from the product and generates jobs through near-farm or on-farm activities. For instance, nudge farmers to become the urjadata (producer of solar power) by encouraging them to plant “solar trees” on their lands at a height of about 10-12 feet in a manner that enough sunlight keeps coming to plants. One can have 500 solar trees/acre in such a manner that even tractors can move through and farmers can keep growing their normal two crops. This would not impact productivity as there is ample sunlight coming from the sides for photosynthesis.

The solar tree generates a lot of excess power. Such a practice prevails in countries like Germany and Japan and India can replicate it on a massive scale. For financial viability, the states need to be ready to do the power purchase agreement (PPA).

### 1.2 Intensification of farming, diversification to high value agriculture

Empirics have shown that emphasis on increasing production and productivity may not necessarily augment farmers’ welfare and their total income. Land, the principal asset of the farmer has a direct bearing on the production and associated income to individual farmers. It is important to have a hard look at crop geometry to capture more value from available land. The land therefore is an important factor of production and needs to be used more judiciously. Rice, wheat and corn together command 42% of land under crop cultivation and account for 19% of the value whereas horticulture occupies 12% of land and gives 24% of value. Therefore, there is a case to release surplus land under cereals for high value commodities. Against this backdrop, we need to enhance farmers’ income through appropriate intensification and diversification strategies. The focus is to be laid on ways in which the farmers’ incomes can be increased through allied activities like dairy, poultry, fisheries, and food processing. The critical inter-linkages between the size of the holdings, propensity to adopt technology, credit, farm mechanisation, diversification of high value crops, and income levels need to be established.

### 1.3 Synchronisation of Production with Demand

Farmers' decisions relating to cultivation of crop or a group of crops should be driven by its demand. It needs to be based on the food habits of people. For instance, production of foodgrains stocks, especially of wheat/rice in India is way above the demand in contrast to 60% deficit in domestic production of edible oils. Domestic edible oil production has not been able to keep pace with the growth in consumption which is around 25 million tonnes against the domestic production at 10.5 million tonnes. India is therefore, dependent on imports to meet its edible oil requirements and is the largest importer of edible oils in the world. During the fiscal year of 2020. 2020-21, the country imported around 13.35 million tonnes of edible oils, priced at around ₹ 80,000 crores. This implies that the relative incentives are highly skewed in favour of wheat and rice. In this background, an allocation of Rs 11,040-crore to augment domestic supplies of edible oil has been made for National Edible Oil Mission-Oil Palm (NEOM-OP) over a five year period as a part of 'Atamribhar Bharat'. This will go a long way in balancing the mismatch between demand and supply of various agri-commodities. To fulfil the national interest, NMEO-Oil palm is being implemented to enhance edible oilseeds production in the country and to reduce import burden on edible oils. Under this, farmers would be enabled to cultivate crops according to demand, and make agriculture profitable.

### 1.4 Stable Agricultural trade policy

Trade Policy for agriculture should aim to facilitate and promote ease of doing business, rather than be restrictive and disruptive to business planning. Trade regime, export promotion and credit policies that affect agricultural exports and imports tend to have an inadequate focus on the interest of farmers. A cogent agricultural trade policy ought to be rooted in the long-term food and nutritional security concerns of the country along with promoting farmers' connection with the global markets. However, the instrument of international agri-trade is often used to control prices in the domestic market, in reaction to short-term supply bottlenecks. This adversely impacts farmers' incomes. Since the short-term view of trade policy compounds the existing risks and uncertainties for farmers, a stable trade regime needs to be designed to maintain a long-term view to help farmers build credible market relationships at the global level.

### 1.5 Transfer of Technology: Labs to Land

The linkage between the research in labs and its use by the farmers needs considerable strengthening. While a section of farmers are forward-looking

and take advantage of various support services such as soil health cards, Kisan credit cards, soil testing labs, and Kisan call centers, not all of them do so. The development of suitable extension programmes is inevitable to improve farmers' incomes. Agricultural Universities should guide farmers on 'what', 'when' and 'how' of farming, depending upon the local conditions. Additionally, integrated farming system models for small-holders in different agro-climatic conditions need to be popularized through Krishi Vigyan Kendras (KVKs) and State agricultural universities on a massive scale. Emerging technologies, AI, IOT, and Blockchain be adopted under the agriculture sector.

### 1.6 Agriculture insurance

Agriculture is like an industry under an open sky where the vagaries of the weather leave the farmers vulnerable and affect their incomes. Along with the perils of natural calamities such as floods and droughts, global warming and climate change are additional challenges being faced by the agriculture sector. The extreme heatwaves and lowered water tables compound the vulnerability. While the launching of the flagship insurance scheme, PMFBY is a step in the right direction, the low insurance coverage due to a variety of reasons such as affordability of premium, delay in settlement of insurance claims to farmers is a cause of concern and signals the necessity of appropriate changes.

## 2. Conclusion

When agriculture policy framework is reoriented as outlined above, it will lead to higher levels of income of farmers through calibration of production in sync with demand, crop diversification, monetisation of their high value produce, better price realisation, congenial trade policy environment and covering farmers against risk. In this way, the country will move from 'production centric' to an 'income-centric' approach and augmenting farmers' income will be at the center of development agenda.

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