



Indian Agriculture – Problems and Solutions

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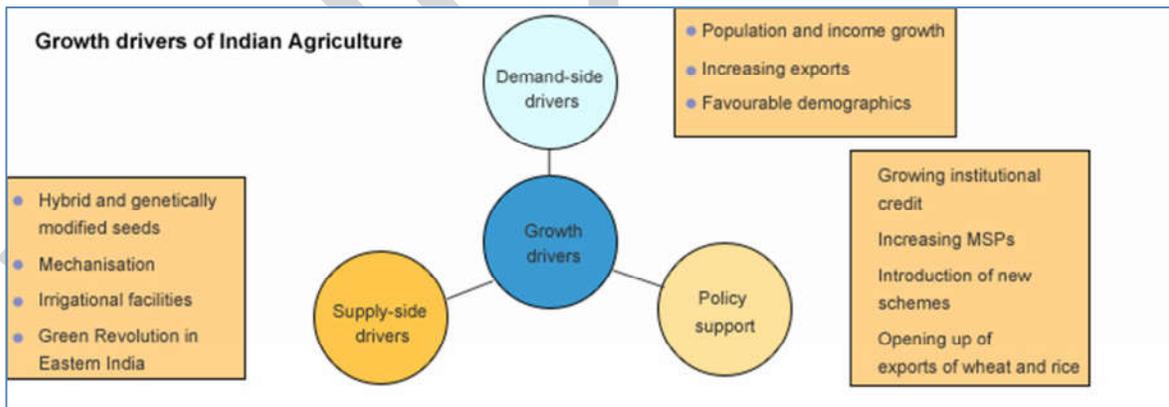
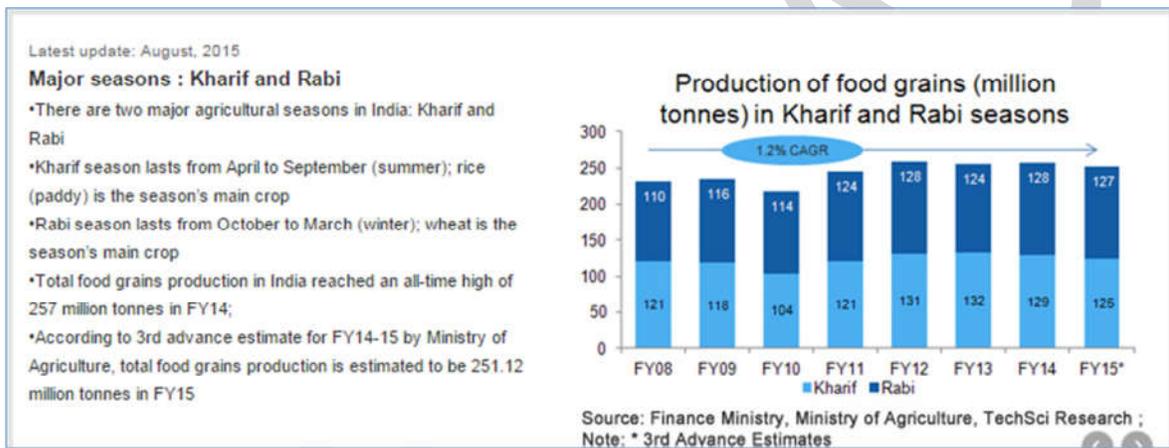
1. Indian Agriculture Industry: Overview

According to The Economic Survey - 2015, **growth in agri-GDP in FY15 is just 1.1 per cent**, while the overall GDP is likely to grow at 7.5 per cent. For the first three years of the 12th Five Year Plan, the **average rate of growth in agri-GDP is a meager 2 per cent, half of the target set for the plan**, and also half of what was achieved during the 11th Plan (4.1 per cent).

Achieving food and nutrition security today and for a world population that **will number more than 9 billion and be 70% urbanized by 2050 is a key global challenge**.

Agriculture plays a vital role in India's economy. **Over 58 per cent of the rural households depend on agriculture as their principal means of livelihood**. Agriculture, along with fisheries and forestry, is one of the largest contributors to the GDP.

As per estimates by the Central Statistics Office (CSO), the share of agriculture and allied sectors (including agriculture, livestock, forestry and fishery) was **16.1 per cent of the Gross Value Added (GVA)** during 2014–15 at 2011–12 prices.



2. Comparison with China

China produces more than 600 million tonnes of food grain, compared to India's 251 million tonnes in FY2015, from a cropped area that is less than India's and with a holding size that is almost half of India's 1.15 hectares.

China also liberated controls on agriculture pricing to a large extent. As a result, its agriculture grew by 7.1 per cent per annum.

3. Problems in the Indian Agriculture Sector

- **Productivity Levels are very low-** The productivity levels primarily determine the income of the farmers. However, the per unit area productivity of Indian agriculture is much lower than other major crop producing countries.
- **Inadequate irrigation facility-** Out of the gross sown area of 192 million ha, rain fed agriculture contributes to 60 per cent of the gross cropped area and 45 per cent of the total agricultural output.
- **Competitiveness of Farmers-** It is imperative to raise the agricultural competitiveness of farmers with small land holdings. Productivity improvement to increase the marketable surplus must be linked to assured and remunerative marketing opportunities.
- **Fragmentation of land holdings-** Land holdings inequality is reflected in land ownership. In 1991-92, the share of the bottom half of the rural households in the total land ownership was only 3% and the top 10% was as high as 54%.
- **Lack of crop insurance mechanism to Farmers** – Despite having approximately 60 per cent of the gross cropped area rain fed, agricultural insurance mechanism in India is very weak. In India, the net sown area is around 140 mha and the gross cropped area hovers between 190-200 mha, but insured area is only 15 mha. However, **the US and China are the world's biggest crop insurers. In the US, the state supports almost 70 per cent of premiums paid by farmers. In China, the state used to support 50-65 per cent of premiums, which was raised to almost 80 per cent in 2013.**
- **Farmer's suicide** - In the last few years, a large number of farmers have committed suicide. Cases of suicides have been reported from states such as Andhra Pradesh, Karnataka, Maharashtra, Kerala, Punjab, Rajasthan, Orissa and Madhya Pradesh.
- **More spending on Subsidy-** If we add the allocations of the five concerned ministries (agriculture, chemical and fertilizers, consumer affairs, food and public distribution, food processing industries, and water resources) for FY16, it is roughly Rs 2.3 lakh crore. The problem is that **more than 85 per cent of this budgeted allocation is directed towards food and fertilizer subsidies.**

4. Recent policy actions taken by the Government

- To improve soil fertility on a sustainable basis through the soil health card scheme.
- To support the organic farming scheme '**Paramparagat Krishi Vikas Yojana**' - It allocated a sum of Rs 5,300 crore.
- Other steps include improved access to irrigation through '**Pradhanmantri Gram Sinchai Yojana**', enhanced water efficiency through '**Per Drop More Crop**'.
- Continued support to MGNREGA
- The creation of a unified national agriculture market to boost the incomes of farmers.
- To raise the existing norms of **compensation by a 50 per cent**. Existing compensation amount is Rs 9,000 per hectare for irrigated crop, Rs 4,500 per ha for un-irrigated crop and Rs 12,000 per ha for perennial crop. Further, the compensation will be given to all those who have suffered **even one-third loss, relaxing the existing criterion of minimum damage of at least 50 per cent.**

5. Remedies

- **Direct Cash Transfer-** We should reorient food and fertiliser subsidies by moving to cash transfers to identified beneficiaries. This will help in reducing leakages and will also help in curbing corruption and will make process more transparent.
- **Open markets** - Farmers must have the freedom to sell their produce to anyone, anywhere. Taxes, levies and commissions on agri-commodities across states need to be rationalized to less than 4 per cent, currently it is ranging from less than 2 per cent in Gujarat to about 14.5 per cent in Punjab.

- **Special agriculture zones (SAZs)** - SAZs should be designed to conserve prime farm land so that we do not revert to a ship-to-mouth existence.
- **Mandatory rainwater harvesting** in all farms for crop-life-saving irrigation if there is a prolonged dry spell. Wherever farms are small, community rainwater harvesting can be promoted. Equity in water-sharing is essential for cooperation in water-saving. Some method of community management, **like a pani panchayat, will be useful.**
- In case there is a prolonged dry spell between rains, seedlings may wither. Therefore, **seed banks with alternative short-duration crops** should be built up and the choice of alternative crops could be according to both home needs and market demand.
- **Contingency plans to adapt to different weather probabilities** should be prepared jointly by agriculture universities and farmers' associations. Women farmers in particular should be consulted. Unless such joint work is promoted, the technical advice may remain on paper.
- Our grain reserve is dwindling and climate change is posing unforeseen threats. Thus, **codes of coping with weather probabilities like drought, flood and good weather should be prepared jointly by scientists and farmers.** Eternal vigilance is the price of stable agriculture and sustainable food security. This will call for an inter-disciplinary monsoon management strategy.
- **To Tackle the problem of farmer's suicide-**
 1. Provide affordable health insurance and revitalize primary healthcare centres. The National Rural Health Mission should be extended to suicide hotspot locations on priority basis.
 2. Set up State level Farmers' Commission with representation of farmers for ensuring dynamic government response to farmers' problems.
 3. Restructure microfinance policies to serve as Livelihood Finance, i.e. credit coupled with support services in the areas of technology, management and markets.
 4. **Cover all crops by crop insurance with the village and not block as the unit for assessment.** Private-sector insurance agencies can be invited to bid for the share of insurance at the lowest premium and fastest settlement of claims at the block level, without any plot-to-plot assessment. Farmers' accounts can be linked to pixel-based mapping of their fields and satellites can be used, with agronomic experts to gauge the extent of damages.
 5. Provide for a Social Security net with provision for old age support and health insurance.
 6. Promote aquifer recharge and rain water conservation. Decentralise water use planning and every village should aim at **Jal Swaraj with Gram Sabhas serving as Pani Panchayats.**
 7. Ensure availability of quality seed and other inputs at affordable costs and at the right time and place.
 8. Recommend low risk and low cost technologies which can help to provide maximum income to farmers because they cannot cope with the shock of crop failure, particularly those associated with **high cost technologies like Bt cotton.**
 9. Need for focused Market Intervention Schemes (MIS) in the case of life-saving crops such as cumint in arid areas. Have a Price Stabilisation Fund in place to protect the farmers from price fluctuations.
 10. Need swift action on import duties to protect farmers from international price.
 11. Set up Village Knowledge Centres (VKCs) or Gyan Chaupals in the farmers' distress hotspots. These can provide dynamic and demand driven information on all aspects of agricultural and non-farm livelihoods and also serve as guidance centres.
 12. Public awareness campaigns to make people identify early signs of suicidal behavior.
- **To improve Competitiveness of farmers-**
 1. **Promotion of commodity-based farmers' organisations such as Small Cotton Farmers' Estates** to combine decentralised production with centralised services such as post-harvest management, value addition and marketing, for leveraging institutional support and facilitating direct farmer-consumer linkage.
 2. Improvement in implementation of Minimum Support Price (MSP). Arrangements for MSP need to be put in place for crops other than paddy and wheat. Also, millets and other nutritious cereals should be permanently included in the PDS.
 3. MSP should be at least 50% more than the weighted average cost of production.

4. Availability of data about spot and future prices of commodities through the Multi Commodity Exchange (MCD) and the NCDEX and the APMC electronic networks covering 93 commodities through 6000 terminals and 430 towns and cities.
 5. State Agriculture Produce Marketing Committee Acts [APMC Acts] relating to marketing, storage and processing of agriculture produce need to shift to one that promotes grading, branding, packaging and development of domestic and international markets for local produce, and move towards a Single Indian Market.
- **Bio resources management** - Rural people in India depend on a wide range of bio resources for their nutrition and livelihood security.
 1. Preserving traditional rights of access to biodiversity, which include access to non-timber forest products including medicinal plants, gums and resins, oil yielding plants and beneficial micro-organisms,
 2. Conserving, enhancing and improving crops and farm animals as well as fish stocks through breeding,
 3. Encouraging community-based breed conservation (i.e. conservation through use),
 4. Allowing export of indigenous breeds and import of suitable breeds to increase productivity of nondescript animals.

6. Road ahead

The agriculture sector in India is expected to generate better momentum in the next few years due to increased investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage. Factors such as reduced transaction costs and time, improved port gate management and better fiscal incentives would contribute to the sector's growth. And also, the growing use of genetically modified crops will likely improve the yield for Indian farmers.

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