



Making Agriculture Economically Viable

This editorial is based on [Agriculture needs a 'natural' boost](#) which was published in The Hindu Business line on 17/05/2023. It talks about importance of economically viable agriculture and suggests some possible policy measures to achieve it.

For Prelims: [Soil Health Card Scheme](#), [Pradhan Mantri Fasal Bima Yojana \(PMFBY\)](#), [e-NAM](#), [Micro Irrigation Fund \(MIF\)](#), [National Mission for Sustainable Agriculture \(NMSA\)](#), [Nano Urea](#)

For Mains: Economically Viable Agriculture: importance, challenges and way forward

The Indian government has been aware of the need to make farming more economically viable and sustainable. The government has been taking various measures to address the problems faced by the farmers, such as low productivity, high input costs, market fluctuations, climate change, indebtedness, and lack of institutional support. The agricultural sector is very crucial for the overall economy and society of India, as it provides employment to a large segment of the workforce and ensures food security for the country's population. Improving the condition of Indian agriculture has been a priority and a challenge for the policymakers in India.

Why is it Important to make Agriculture Economically Viable?

- **To Ensure Food Security:** India is a country with a large population and a growing demand for food. In order to ensure that everyone has access to enough food, it is important to make agriculture economically viable so that farmers can produce enough food to meet the demand.
- **To Promote Rural Development:** Agriculture is a major contributor to the rural economy. By making agriculture economically viable, it is possible to promote rural development and improve the lives of people living in rural areas.
- **To Support the Livelihoods of a Majority of Indians:** Making agriculture economically viable can help improve the living standards and well-being of millions of Indians who depend on farming for their survival. Agriculture is the main source of income and employment for more than 50% of the Indian population directly.
- **To Enhance the Growth and Stability of The Economy:** Agriculture contributes around 17-18% to the GDP of India. Making agriculture economically viable can help boost the overall economic growth and stability of India by increasing farm productivity, reducing wastage, diversifying crops, enhancing value addition and ensuring food security.
- **To Adopt Sustainable and Natural Farming Practices:** Agriculture causes environmental degradation, water scarcity, soil erosion, and greenhouse gas emissions. Current farming practices rely on harmful chemicals, irrigation, and subsidies. Making agriculture economically viable can encourage sustainable and natural farming practices that reduce environmental impact and enhance adaptation to climate change.

What are the challenges?

- **Lack of Digital Literacy:** Many farmers in rural areas may not have access to smartphones or reliable internet connectivity, which can limit their ability to access digitalized agri-services. Another challenge is the need for education and training to help farmers understand how to use these new technologies effectively.
- **Small land holdings:** Many farmers in India have small land holdings, which can limit their ability to achieve economies of scale and reduce their profitability.
- **Lack of Access to Credit:** Many farmers in India lack access to formal credit, which can limit their ability to invest in their farms and improve their productivity.
- **Lack of Access to Markets:** Many farmers in India lack access to markets where they can sell their produce at a fair price. This can result in farmers receiving low prices for their produce and reduce their profitability.
- **Climate change:** Climate change is resulting in more frequent and severe weather events such as droughts and floods, which can have a devastating impact on farmers' livelihoods.
- **Lack of infrastructure:** Many rural areas in India lack basic infrastructure such as roads, electricity, and irrigation systems, which can limit farmers' ability to improve their productivity and profitability.
- **Natural calamities:** India is prone to natural calamities such as floods, droughts, and pests. These calamities can damage crops and livestock, leading to losses for farmers.
- **Inefficient marketing:** The marketing system for agricultural produce in India is inefficient. This leads to low prices for farmers and high prices for consumers.

What are the Initiatives Taken by the Government?

- **Soil Health Card Scheme:** It aims to assess and improve the health of soils in agricultural areas across the country to provide farmers with detailed information about the nutrient content and fertility status of their soil. This helps farmers make informed decisions, leading to improved productivity and reduced costs.
- **Pradhan Mantri Fasal Bima Yojana (PMFBY):** It is a crop insurance scheme launched by the Government to provide financial support to farmers in the event of crop loss or damage due to various natural calamities.
- **Pradhan Mantri Krishi Sinchai Yojana (PMKSY):** It aims to improve farm productivity and water resource utilization in agriculture by increasing irrigation investments, expanding cultivable areas, improving water use efficiency, adopting precision irrigation and other water-saving technologies, and promoting sustainable water conservation practices.
- **National Agriculture Market (e-NAM):** A pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.
- **Rashtriya Krishi Vikas Yojana (RKVY):** Initiated in 2007, the Rashtriya Vikas Yojana (RKVY) is an umbrella scheme that ensures overall agricultural and allied services development. This scheme encourages States to increase public investment in agricultural and allied services.
- **Micro Irrigation Fund (MIF):** MIF was operationalized in NABARD in 2019-20 to facilitate State Govts. efforts in mobilizing additional resources for expanding coverage under micro irrigation and incentivizing its adoption beyond provisions of Pradhan Mantri Krishi Sinchayee Yojana-Per Drop More Crop.
- **National Mission for Sustainable Agriculture (NMSA):** This mission has been formulated for enhancing agricultural productivity especially in rainfed areas focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation.
 - **Rainfed Area Development (RAD):** It focuses on Integrated Farming System (IFS) for enhancing productivity and minimizing risks associated with climatic variabilities.
 - **Soil Health Management (SHM):** It aims at promoting location as well as crop specific sustainable soil health management including residue management, organic farming practices by way of creating and linking soil fertility maps with macro-micro nutrient management.

What are some Policy Options for making Agriculture Economically Viable?

- **Digitalisation of Agriculture:** The new age technology based Agri start-ups offer full-stack solutions for farmers from seed to market. They prioritize the farmer by providing direct access to supplies, loans, insurance, and selling their produce at the best price.
 - For Example, Gurugram-based DeHaat caters to 15 lakh farmers covering over 35 crops, through artificial intelligence, machine learning, and data analytics.
 - Typically, the farmers with smart phone can access digitalized agri-services for agri-inputs, farm advisory, and marketing of agri-produce.
- **Integrated/Natural Farming:** Integrated farming can be profitable for farmers with small land holdings. By having a few animals, fishponds, and vermi-culture for natural manure, farmers can become self-reliant and financially empowered. Family labor is important for this type of farming, and it is both commercially viable and environmentally sustainable.
 - Natural farming offers a solution to various problems such as food insecurity, farmers' distress, health issues and natural calamities by using locally available resources and minimizing external inputs.
- **Climate Smart Agriculture:** Climate smart agriculture can make agriculture economically viable by shifting towards eco-friendly agri-inputs such as **Nano Urea**. This can reduce the indiscriminate use of fertilizers, which can lead to irreparable ecological damage, soil infertility, and a toxic food chain. By using cost-effective and sustainable farming practices, farmers can increase crop yields while reducing input costs. This can help farmers become more profitable and sustainable in the long run.
 - The government spends heavily on fertiliser subsidy. This led to indiscriminate use of fertilisers resulting in irreparable ecological damage, soil infertility, and a toxic food chain.
 - Soil position in Punjab is unhealthy as 246 kg of fertilisers are used per hectare compared to the national average of 135 kg.
- **Adopting Best Farm-practices:** Adopting best farm-practices such as co-operative principles can make agriculture economically viable. For instance, Israel, despite its unfavourable climate and limited resources, has become a major exporter of farm-produce and a global leader in agricultural technologies. By following social equality, co-operation and mutual aid in generating agricultural output in the most productive manner, farmers can increase their efficiency and productivity. This can lead to increased profitability and sustainability in the long run.
- **Say 'NO' to Informal Credit:** Besides easing access to formal credit, farmers need to be counselled on financial prudence. Formal credit facilities can increase agricultural productivity and profitability by providing farmers with funds to invest in their farms.
 - Despite the availability of formal sources of finance, a recent survey shows that money lenders/traders/landlords still exist in rural India, making farmers financially unstable and dependent on informal credit sources.
- **Development of Agri-Value Chains:** Key drivers of agri-value chains are customer focus, infrastructure, technology, training & capacity building.
 - VAPCOL, a multi-state farmer producer company based in Maharashtra, is a case in point. It has a membership of 55 FPOs covering over 40,000 tribal farmers spread across seven States.
- **Leveraging Collectives:** Convergence of SHGs, Farmers Producer Organisations (FPOs) and Co-operatives will lead to better bargaining power of farmers in terms of bulk procurement of inputs at a discounted price, economies of scale in transportation and warehousing, access to low-cost institutional finance, farm mechanisation (drones for monitoring of crops and spraying of fertilisers and plant protection chemicals, etc.).

Drishti Mains Question:

Making agriculture economically viable is crucial for ensuring the livelihoods of millions of farmers in India. Discuss the challenges in achieving economic viability and suggest measures that can be taken to address these challenges.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

Q. In the context of India's preparation for Climate -Smart Agriculture, consider the following statements:

1. The 'Climate-Smart Village' approach in India is a part of a project led by the Climate Change, Agriculture and Food Security (CCAFS), an international research programme.
2. The project of CCAFS is carried out under Consultative Group on International Agricultural Research (CGIAR) headquartered in France.
3. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India is one of the CGIAR's research centres.

Which of the statements given above are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (d)

Q. Consider the following pairs: (2014)

Programme/Project Ministry

1. Drought-Prone Area Programme : Ministry of Agriculture
2. Desert Development Programme : Ministry of Environment and Forests
3. National Watershed Development Project for Rainfed Areas : Ministry of Rural Development

Which of the above pairs is/are correctly matched?

- (a) 1 and 2 only
(b) 3 only
(c) 1, 2 and 3
(d) None

Ans: (d)

Q. In India, which of the following can be considered as public investment in agriculture? (2020)

1. Fixing Minimum Support Price for agricultural produce of all crops
2. Computerization of Primary Agricultural Credit Societies
3. Social Capital development
4. Free electricity supply to farmers
5. Waiver of agricultural loans by the banking system
6. Setting up of cold storage facilities by the governments

Select the correct answer using the code given below:

- (a) 1, 2 and 5 only
(b) 1, 3, 4 and 5 only
(c) 2, 3 and 6 only
(d) 1, 2, 3, 4, 5 and 6

Ans: (c)

Mains:

Q. Given the vulnerability of Indian agriculture to vagaries of nature, discuss the need for crop insurance and bring out the salient features of the Pradhan Mantri Fasal Bima Yojana (PMFBY). **(2016)**

Q. Explain various types of revolutions, took place in Agriculture after Independence in India. How these revolutions have helped in poverty alleviation and food security in India? **(2017)**

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