

Organic Farming in India

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Introduction:

As nearly 67% of India's population depends on farming, it is important to make it a productive, sustainable and profitable enterprise to bring prosperity to farm households. This is possible through sustainable agriculture by means of converting natural resources and bio inhabitants into beneficial wealth. A sharp acceleration nearly six folds is witnessed in food grain production from 51 MT to 310 MT from 1950-51 to 2020-21. This phenomenal increase has been due to the adoption of high yielding varieties (HYV's) in combination with other Green Revolution Technologies (GRTs) in food grains. However, the excessive and disproportionate use of chemical fertilizers and pesticides affected soil health and compromised long-term sustainable agricultural production, thus impacting many social, ecological and economic balance. Organic farming practices provide an alternate farming system which is environmental friendly and sustainable.

Organic farming is a production system of crops which avoid the use of synthetic and chemical inputs like fertilizer, pesticide growth regulators and livestock feed additives.

Nutrients requirement. – organic origin material such as compost, manure, green manure, bone meal etc. Pest and disease management-- mixed cropping, insect predators, crop rotation etc.

Objectives of Organic Farming

- To produce food of high nutritional quality in sufficient quantity.
- To work with natural system rather than seeking to dominate them.
- To encourage and enhance biological cycles within farming system-involving microorganisms, soil flora and fauna, plants and animals.
- To maintain and increase long term fertility of soil.
- To use, as far as possible, the renewable resources. To work as much as possible, within a closed system, with regard to organic matter and nutrient elements.
- To give all livestock, conditions of life that allow them to perform all aspects of their innate behavior.

Characteristics of Organic Farming

- Maximum but sustainable use of resources.

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- Minimal use of purchased inputs, only as complementary to local resources.
- Ensuring the basic biological functions of soil-water-nutrients-human continuum.
- Maintaining the diversity of plant and animal species as a basis for ecological balance and economic stability.
- Creating an alternative overall landscape which give satisfaction to the local people.

Principles of organic farming

- Principles of Health – The health of the ecosystem, people, and communities.
- The Principles of Ecology – The right balance between ecosystem and environment or nature.
- Principles of Fairness – Good human relationships and quality of life.
- Principles of Care – The considerations about the environment and environment of the future.

Government Initiatives to Promote Organic Farming

Paramparagat Krishi Vikas Yojana- promotes cluster based organic farming with PGS (Participatory Guarantee System) certification. Cluster formation, training, certification and marketing are supported under the scheme. Assistance of Rs. 50,000 per ha /3 years is provided out of which 62 percent (Rs. 31,000) is given as incentive to a farmer towards organic inputs.

Rashtriya Krishi Vikas Yojna-

assistance for promotion of organic farming on different components are also available under Rashtriya Krishi Vikas Yojana (RKVY) with the approval of State Level Sanctioning Committee.

One District - One Product (ODOP)-

the programme aims to encourage more the sale of indigenous and specialized products/crafts of Uttar Pradesh, generating employment at the district level.



The presence of aggregators is imperative to bring about economies of scale for the small and marginal farmers.

National Mission on Oilseeds and Oil Palm (NMOOP)- Financial assistance@ 50% subsidy to the tune of Rs. 300/- per ha is being provided for different components including bio-fertilizers, supply of Rhizobium culture/Phosphate Solubilising Bacteria (PSB)/Zinc Solubilising Bacteria (ZSB)/Azotobacter/ Mycorrhiza and vermicompost.

Types of Organic Farming

Pure organic farming

It involves the use of organic manures and biopesticides with complete avoidance of inorganic chemicals and pesticides.

Integrated Organic Farming Systems

Pure organic farmers don't want to use much or any technology in their work. This is different from integrated organic farming systems, which use all technology they can get to make their life easier and to make more food. But, they still don't include some big amounts of chemicals or pesticides or something like that. Still inside organic rules.

Integrated organic farming Integrated organic farming involves integrating techniques aimed at achieving ecological requirements and economic demands such as integrated pest management and nutrients management.

Challenges in Organic Farming

- Disparity of Supply and Demand Non-perishable grains can be grown anywhere and transported to any location but this is not the case with fruits and vegetables.
- Time organic farming requires greater interaction between a farmer and his crop for observation, timely intervention and weed control for instance.
- High MRP It is almost obvious that due to the extreme care taken to go along with organic farming, the results would be kept at a high price.
- Marketing of organic produce is also not properly streamlined. There are a number of farms in India which have either never been chemically managed / cultivated or have converted back to organic farming because of farmers' beliefs or purely for reason of economics.

Pillars of organic farming

- 1) Organic standards
- 2) Certification/Regulatory mechanism
- 3) Technology packages
- 4) Market network

Scope of Organic farming in India.

- ❖ Local demand for organic food is growing. India is poised for faster growth with growing domestic market.

Success of organic movement in India depends upon the growth of its own domestic markets.

- ❖ India has traditionally been a country of organic Agriculture and now with increasing awareness about the safety and the quality of the food, long-term sustainability of the system, accumulating evidences of being equally productive, the organic farming has emerged as an alternative system of the farming which may not only address of quality in sustainability concerns., but also ensures a debt free, profitable livelihood option.

Need of encouraging the use of organic farming in India

- ❖ Unsustainable conventional agriculture: The ill effects of the conventional farming system are felt in India in terms of the unsustainability of agricultural production, environmental degradation, health and sanitation problems, etc. Organic agriculture is needed as an alternative method to the modern system.
- ❖ Agricultural productivity: The fertilizer and pesticide consumption has increased manifold but this trend has not been reflected in the crop productivity to that extent during green revolution.

- ❖ Rising population: With the increase in population there is need to increase agriculture production further in sustainable manner. The scientists have realized that the 'Green Revolution' with high input use has reached its peak and is now diminishing returns. Thus, a sustainable organic alternative is needed.
- ❖ Healthy food: Several indirect benefits from organic farming are available to both the farmers and consumers.

Present status of Organic Farming in India

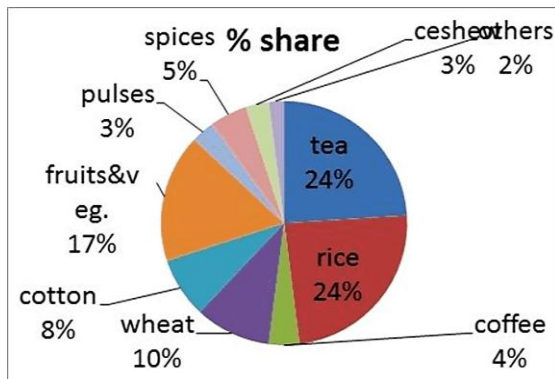
Status of Organic Farming in India

Globally, organic farming is becoming more and more popular; in 2019, over 72.3 million acres of land were planted organically. With the National Programme for Organic Production (NPO) established in 2001 under the Agricultural as well as Processed Food Products Export Development Authority (APEDA) of the Ministry of Commerce and Industry, only 85% of India's 14,000 tonnes of organic production in 2002 was exported. The National Mission for Sustainable Agriculture was established to support organic farming after the Indian government passed the nation's first organic farming policy later in 2005.

India produced approximately 3496800.34 MT (2020-21) of organic foods which includes all varieties of food products namely Sugarcane, Cotton, Oil Seeds, Basmati

rice, cereals, Pulses, Spices, Tea, Fruits, Dry fruits, Vegetables, Coffee and their value added products, aromatic and Medicinal plants etc.

Percentage share of organic products in India



Way Forward- the avenues for future development

- Experts construe that the upgrading of technology and empowering research in agriculture will provide an impetus to the development of organic farming.
- This would assure income generation resulting in the reduced dependence on external products.
- This would be an enabler in connecting organic farmers with the global supply chain.
- With greater awareness and capacity building of the producers in compliance with international standards, Indian organic farmers will soon be reinforcing their rightful place in global Agri-trade.

- India needs the introduction of structural changes through policy interventions and technological deployment in organic farming and make it resilient, sustainable and profitable.
- Agricultural universities need to focus more on organic and natural farming and promote innovation and agri-entrepreneurship among the youth.

Advantages of Organic Farming

- Economical- with Organic Farming, farmers can reduce their cost of production as they don't need to buy expensive chemicals so there is no extra expense.
- Return on Investment- the ROI is great because farmers use cheaper and local inputs to get the output.
- Nutritional- organic products have more nutrients as compared to foods that are produced with chemicals, fertilizer, and utilized products.
- Environment friendly- it is one of the best advantages of Organic Farming. Organic farming includes the usage of organic products, so it does not harm the environment. It supports wildlife, especially in the lowlands.

Disadvantages of Organic Farming

- Organic foods are expensive because the farmers don't get as much output as

the conventional farmers do, and that's why organic foods cost 40% more.

- The quantity of organic foods produced is low, so the marketing and distribution are not efficient.
- Organic products have a shorter shelf life and have more flaws than that chemical products.
- Lack of adequate infrastructure and marketing of the products.

Conclusion

The phenomenon of 'Organic agriculture' is the only solution to nurture the land and to regenerate the soil by going back to our traditional method of farming i.e., free from chemicals, pesticides and fertilizers. This is a possible step for sustainable development by choosing not to use chemicals, synthetic materials, pesticides and growth hormones to produce high nutritional quality food and in adequate quantities. Organic farming is an option agricultural system which quickly changes farming rehearsals. It depends on composts of natural starting points, for example, fertilizer excrement, green excrement, and bone feast and so forth substantially more than deciding not to utilize pesticides, fertilizers.

