



Revolutionising Indian Agriculture Through Natural Farming

This article is based on [“Why this dithering on natural farming?”](#) which was published in Hindu Business Line on 08/01/2023. It talks about Natural Farming in India and related challenges.

For Prelims: Natural farming, Soil erosion, Greenhouse gas emissions, Gross Cropped Area (GCA), Mission Organic Value Chain Development for North Eastern Region (MOVCDNER), National Mission on Sustainable Agriculture, Paramparagat Krishi Vikas Yojana (PKVY), Sub-mission on AgroForestry (SMAF), Rashtriya Krishi Vikas Yojana, Corporate Social Responsibility.

For Mains: Significance of Natural Farming, Issues Associated with Natural Farming, Recent Government Initiatives Related to Sustainable Agriculture.

Natural farming is a method of agriculture that **relies on natural processes rather than synthetic inputs**. In India, it has gained popularity as a way to increase crop yields and reduce the environmental impact of agriculture.

However, there are a number of challenges that natural farmers in India face like **limited market, lack of readily available natural inputs and decline in yields due to climate change**.

As a result, **it is crucial to scrutinise these challenges from a micro perspective**, and to promote natural farming as a food production method that is **eco-friendly and does not compromise the needs of future generations**.

What is Natural Farming?

- Natural farming is a method of agriculture that seeks to **create a balanced and self-sustaining ecosystem in which crops can grow without the use of synthetic chemicals** or genetically modified organisms.
 - Instead of relying on artificial inputs like **synthetic fertilisers and pesticides**, **natural farmers rely on techniques like crop rotation, intercropping, and composting to enhance soil health** and support crop growth.
- Natural farming methods are often based on traditional knowledge and practices and may be adapted to local conditions and resources.
 - The goal of natural farming is to **produce healthy, nutritious food in a way that is sustainable and environmentally friendly**.

What is the Significance of Natural Farming?

- **Food and Nutrition Security:** Natural farming can help to improve [food security](#) for **communities in India**, especially for small-scale farmers who may not have access to or be able to afford modern inputs.
 - By relying on natural techniques, farmers can produce **healthy, nutritious food without incurring high costs.**
- **Environmental Benefits:** Natural farming can have a number of positive environmental impacts, such as [reducing water pollution](#), [soil erosion](#), and [greenhouse gas emissions](#).
 - It can also help to **preserve biodiversity by supporting the growth of a variety of crops** and other plants.
- **Sustainable Agriculture:** Natural farming is a sustainable approach to agriculture that seeks to **preserve and enhance natural resources**, rather than depleting them.
 - This can be especially important in a country like India, where the **population is expected to continue growing** and there will be increasing pressure on natural resources.
- **Economic Benefits:** Natural Farming can make **farming viable and aspirational by increasing net incomes of farmers** on account of cost reduction, reduced risks, similar yields, incomes from intercropping.

What are the Issues Associated with Natural Farming?

- **Weather and Climate:** Natural farming methods may be more vulnerable to **weather and climate changes**, as they do not rely on synthetic inputs to boost crop growth. This can be a **challenge for farmers in India, where the climate can be unpredictable.**
- **Pest and Disease Threat:** Natural farmers may have more **difficulty controlling [pests and diseases](#) compared to conventional farmers**, who can use synthetic chemicals to treat these problems.
 - This can make natural farming more risky and challenging. For example, a **natural farmer may struggle to control a pest infestation without the use of pesticides**, which can lead to crop losses and financial hardship.
- **Limited Resources and Time Constraint:** Natural farming often requires more labour and other resources compared to conventional farming methods.
 - For example, **natural farmers may need to spend more time and effort on tasks like composting, crop rotation, and intercropping.** This can be a challenge for farmers in India who are already **stretched thin and may not have the time or manpower to devote to these tasks.**

What are the Other Challenges Related to Farming in India?

- **Lack of Irrigation Facility:** At the national level, only **52% of India's [Gross Cropped Area \(GCA\)](#)** is irrigated. The monsoon continues to **restrict crop planting** even though India has made significant strides since independence.
- **Lack of Agricultural Diversification:** In spite of the **rapid commercialization of agriculture in India**, most farmers assume cereals will always be their main crop (due to skewed [Minimum Support Prices](#) in favour of cereals) and ignore crop diversification.

What are the Recent Government Initiatives Related to Sustainable Agriculture?

- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)**
- [National Mission on Sustainable Agriculture](#)
- [Paramparagat Krishi Vikas Yojana \(PKVY\)](#)
- [Sub-mission on AgroForestry \(SMAF\)](#)
- [Rashtriya Krishi Vikas Yojana](#)

What Should be the Way Forward?

- **Farmer Training Centres:** One way to promote natural farming in India would be to provide **education and training to farmers on natural farming techniques** and the benefits of this approach.
 - This could be done through **extension programs and creating farmer training centres at local level.**
- **Incentivising Natural Farming:** The government could play a role in promoting natural farming in India by providing **financial incentives, such as grants or subsidies, to farmers who adopt natural methods.**
 - The government could also establish **regulations or standards to encourage the use of natural farming techniques.**
- **Linking Natural Farming with CSR:** The private sector could help to promote natural farming in India through initiatives such as **corporate social responsibility programs**, investment in natural farming projects, and **partnerships with natural farming organisations.**
- **One District One Natural Product Mela:** Encouraging the **development of local and sustainable food systems**, such as farmers' markets and **community-supported agriculture programs**, could help to promote natural farming in India by creating a demand for naturally grown products.
 - Also, **One District One Natural Product Mela** can be organised at state level to **promote and make natural farming products a brand in itself.**
- **Research and Development:** Investing in **research and development to improve natural farming techniques and to demonstrate their effectiveness** could help to increase the adoption of natural farming in India.
 - This could involve research on topics such as the **best natural fertilisers to use, the most effective pest control methods**, and the most productive crop rotation.

Drishti Mains Question

Examine the potential of natural farming in India as a sustainable approach to agriculture and discuss the role that the private sector can play in promoting and supporting natural farming.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims

Q.1 How is permaculture farming different from conventional chemical farming? (2021)

1. Permaculture farming discourages monocultural practices but in conventional chemical farming, monoculture practices are predominant.
2. Conventional chemical farming can cause an increase in soil salinity but the occurrence of such phenomenon is not observed in permaculture farming.
3. Conventional chemical farming is easily possible in semi-arid regions but permaculture farming is not so easily possible in such regions.
4. Practice of mulching is very important in permaculture farming but not necessarily so in conventional chemical farming.

Select the correct answer using the code given below:

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

Ans: (b)

Q.2 Which of the following is the chief characteristic of 'mixed farming'? (2012)

- (a) Cultivation of both cash crops and food crops
- (b) Cultivation of two or more crops in the same field
- (c) Rearing of animals and cultivation of crops together
- (d) None of the above

Ans: (c)

Mains

Q.1 What are the present challenges before crop diversification? How do emerging technologies provide an opportunity for crop diversification? **(2021)**

Q.2 How has India benefited from the contributions of Sir M. Visvesvaraya and Dr. M. S. Swaminathan in the fields of water engineering and agricultural science respectively? **(2019)**

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