



## Roadmap for Natural Farming

This editorial is based on [“Road To Natural Farming”](#) which was published in Indian Express on 24/02/2022. It talks about the significance of natural farming.

**For Prelims:** Natural Farming, Zero-Budget Natural Farming (ZBNF), Bhartiya Prakritik Krishi Paddhati Programme (BPKP), Paramparagat Krishi Vikas Yojana (PKVY), Carbon Sequestration, National Mission on Sustainable Agriculture.

**For Mains:** Natural Farming - Significance and Associated Issues, Methods to Promote Natural Farming.

In the budget speech, the Finance Minister of India reaffirmed the Government’s commitment to **natural, chemical-free, organic and Zero-Budget Natural Farming (ZBNF)**. It is the third time in the last four budget speeches where (zero budget) [natural farming](#) finds a mention.

Natural Farming, as the name suggests, is the art, practice and, increasingly, the **science of working with nature to achieve much more with less**.

This practice, however, has been associated with decline in yields and not much improvement in farmers’ incomes. To overcome such challenges, **providing incentives to farmers** for transitioning to chemical-free farming and providing them the **assistance of peer farmers and institutions who are already engaged** in natural farming, would be ideal.

### Natural or Chemical-Free Farming Farming

#### What is Natural Farming and Its Significance?

- This farming approach was **introduced by Masanobu Fukuoka**, a Japanese farmer and philosopher, in his 1975 book **The One-Straw Revolution**.
- It is a diversified farming system that **integrates crops, trees and livestock**, allowing the optimum use of functional biodiversity.
  - Internationally, Natural Farming is considered a form of regenerative agriculture—a **prominent strategy to save the planet**.
- It holds the **promise of enhancing farmers’ income** while delivering many other benefits, such as restoration of soil fertility and environmental health, and mitigating and/or reducing greenhouse gas emissions.
- It has the **potential to manage land practices** and [sequester carbon](#) from the atmosphere in soils and plants, where it is actually useful.

#### What Initiatives have been Launched in this Regard?

- In India, Natural farming is promoted as **Bhartiya Prakritik Krishi Paddhati Programme (BPKP)** under [Paramparagat Krishi Vikas Yojana \(PKVY\)](#).
  - BPKP is aimed at **promoting traditional indigenous practices** which reduce externally purchased inputs.
- [Sub-mission on AgroForestry \(SMAF\)](#) aims to encourage farmers to **plant multi-purpose trees together with the agriculture crops** for climate resilience and an additional source of income to the farmers, as well as enhanced feedstock to inter alia wood-based and herbal industry.
- [National Mission on Sustainable Agriculture \(NMSA\)](#) was launched to develop, demonstrate and disseminate the techniques to make agriculture resilient to adverse impacts of climate change.
- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)** is a sub-mission under NMSA which aims to **develop certified organic production in a value chain mode**.
- In the Budget 2022-23, [Rashtriya Krishi Vikas Yojana](#) has received a **4.2-times (year-on-year) larger allocation** of Rs 10,433 crore, which will earmark funds for the on-ground implementation of chemical-free farming.

### What are the Associated Issues?

- **Sikkim (India's first organic state)**, has seen some **decline in yields** following conversion to organic farming.
- Many **farmers have reverted to conventional farming** after seeing their ZBNF returns drop after a few years.
- While ZBNF has definitely helped preserve soil fertility, its role in boosting productivity and **farmers' income isn't conclusive yet**.
- An often-cited barrier by farmers in transitioning to chemical-free agriculture is the **lack of readily available natural inputs**. Not every farmer has the time, patience, or labour to develop their own inputs.
- A study in Nature Sustainability states that while the nutrient value of the natural inputs is similar to the chemical ones **used in low-input farms** (farms using lower quantities of fertilisers and pesticides), it is **less in high-input farms**.
  - When such nutrient deficiencies are aggregated at a large scale, it might hamper the yield over the years, **potentially leading to food security concerns**.
- Although the [Budget 2022-23 envisages the promotion of natural or chemical-free farming](#) across the country, **no specific allocations have been made** to the Ministry of Agriculture and Farmers Welfare.
  - The currently-operational schemes such as the **PKVY** and the [National Project on Organic Farming](#) also **did not find any mention in the budget**.

### What Measures Can Be Taken to Scale up Chemical-Free/ Natural Farming?

- **Going Beyond Ganga Basin:** Focussing on **promoting natural farming in rainfed areas beyond the Gangetic basin**.
  - Rainfed regions **use only a third of the fertilisers per hectare** compared to the areas where irrigation is prevalent.
    - The shift to chemical-free farming will be **easier in these regions**.
  - Also, the farmers stand to gain as the current crop yields in these areas are low.
- **Risk Prevention for Smooth Transition:** Enabling **automatic enrollment of farmers** transitioning to chemical-free farming into the government's crop insurance scheme, [PM Fasal Bima Yojana \(PMFBY\)](#).
  - Any transition in agriculture — crop diversification, change in farming practices — adds to the farmer's risk.
  - Covering such risks could **enhance the appetite of the farmers to embark on the transition**.
- **Providing Support to Agri MSMEs:** Microenterprises **that produce inputs for chemical-free agriculture** shall be provided support from the government.
  - To address the challenge of unavailability of readily available natural inputs, the promotion of natural farming needs to be combined with the **setting up of village-level input preparation and sales shops**.
  - **Two shops per village** across the country could provide a livelihood to at least five

million youth and women.

- **Peer Farmers as Inspiration:** NGOs and champion farmers who have been promoting and practising sustainable agriculture across the country can be leveraged for this purpose.
  - A CEEW (Council on Energy, Environment and Water) research estimates that at least five million farmers are already practising some form of sustainable agriculture and hundreds of NGOs are involved in promoting them.
  - **Learning from peers**, especially champion farmers, through **on-field demonstrations** has proved highly effective in scaling up chemical-free agriculture in Andhra Pradesh.
- **Leveraging Community Institutions:** Community institutions can be leveraged for **awareness generation, inspiration, and social support**.
  - The government should facilitate an ecosystem in which farmers learn from and support each other while making the transition.
  - Beyond evolving the curriculum in agricultural universities, there is a need to **upskill the agriculture extension workers on sustainable agriculture practices**.

### ***Drishti Mains Question***

Discuss the significance of natural farming and suggest measures that can be taken for smooth transition from conventional to chemical-free farming.