

Natural Farming

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National Mission on Natural Farming (NMNF)

Context : The **National Mission on Natural Farming (NMNF)** was recently launched with an allocation of **₹2,481 crore**, consolidating all previous schemes aimed at promoting natural farming practices.

What is the NMNF?

- **Objective:** To bring **one crore farmers** under natural farming practices and cover around **0.75 million hectares** of land over the next few years.
- **Subsumed Schemes:**
 1. **Bhartiya Prakratik Krishi Paddhati (BPKP):** Launched in 2019-20 to promote natural farming.
 2. **Natural Farming Corridor:** Focuses on sustainable farming along the **Ganges River**.

Natural Farming: Principles and Practices

- **Core Concept:**
 - Natural farming relies on the idea that **soil naturally contains all the nutrients** essential for plant growth.
 - Advocates **zero-budget farming**, which eliminates the need for external inputs by recycling nutrients on the farm.
- **Key Components:**
 - **Beejamrutham:** Microbial seed coating using cow dung and urine-based formulations.
 - **Jeevamrutham:** A mixture of cow dung, urine, jaggery, pulse flour, water, and soil to enhance microbial activity.
 - **Mulching:** Helps in soil humus formation and prevents water evaporation.
 - **Waaphasa:** Improves soil aeration through a favorable microclimate.
 - **Insect and Pest Management:** Natural pest control using decoctions like *kashyams* made from cow dung, urine, and green chilies.
- **Scientific Basis:**
 - Plants derive **98-98.5% of their nutrition** from air, water, and sunlight, with only 1.5% coming from the soil.

Success Stories

- **Community Managed Natural Farming in Andhra Pradesh:**
 - Started in 2016, this initiative has empowered **women's microcredit groups** to promote natural farming.
 - It has gained international recognition, winning the **2024 Gulbenkian Prize for Humanity** for contributions to global food security and climate resilience.
 - Supported by **FAO** and **CIRAD**.
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Natural Farming vs. Organic Farming

• Concept

- Natural Farming: Minimal human intervention; inspired by Masanobu Fukuoka's "do-nothing farming."
- Organic Farming: Uses organic inputs but involves planned intervention for pest control and soil management.

• Fertilizers

- Natural Farming: Avoids fertilizers, even organic ones; uses natural resources like Jeevamrutham.
- Organic Farming: Permits organic fertilizers like compost and green manure but disallows chemical fertilizers.

• Pesticides

- Natural Farming: Relies on natural ecosystems to manage pests; may use neem oil or similar natural mixtures.
- Organic Farming: Uses organic pesticides and bio-pesticides.

• Soil Health

- Natural Farming: Relies on microbes and organic matter to naturally replenish soil fertility.
- Organic Farming: Requires tillage and organic amendments like compost.

• Cost

- Natural Farming: Low-cost, relying on farm-derived materials.
- Organic Farming: Relatively expensive due to purchased inputs and certifications.

• Crop Yield

- Natural Farming: Yields may be lower initially but stabilize over time.
- Organic Farming: Yields are higher than natural farming but lower than conventional farming.

• Sustainability

- Natural Farming: Focuses on biodiversity and ecosystem preservation.
 - Organic Farming: Sustainable but involves tillage and higher resource use.
- **Water Usage**
 - Natural Farming: Reduces irrigation needs through mulching and moisture retention.
 - Organic Farming: May require more water due to organic fertilizers and tillage.
- **Economic Impact**
 - Natural Farming: Promotes self-reliance by reducing market dependency.
 - Organic Farming: Creates premium markets for organic produce but requires market access.
- **Global Example**
 - Sikkim is the world's first 100% organic state, winning the Future Policy Gold Award from the UN FAO.

Why India Promotes Natural Farming Over Organic Farming

1. **Lower Input Costs:** No need for purchased fertilizers or pesticides.
2. **Soil Health:** Preserves soil structure and enhances microbial activity.
3. **Water Conservation:** Practices like mulching reduce irrigation needs.
4. **Energy Efficiency:** Avoids energy-intensive processes like compost preparation and certification.
5. **Reduced Market Dependency:** Farmers produce inputs on-site, reducing reliance on external agencies.
6. **Climate Resilience:** Better adapted to extreme weather events.
7. **Accessibility:** Affordable for small and marginal farmers.
8. **Income Boost:** Farmers can integrate allied activities like beekeeping and multi-cropping.
9. **Soil Productivity:** Retains moisture and resists erosion, essential for climate adaptation.
10. **Lower Carbon Footprint:** Reduces greenhouse gas emissions.

What Lies Ahead?

- **Support During Transition:** The government must assist farmers until yields stabilize.
- **Long-term Assessments:** Large-scale studies to validate the effectiveness of natural farming.
- **Farmer Awareness:** Promote natural farming practices to encourage wider adoption.

Natural farming represents a sustainable approach that aligns with India's climate goals and empowers farmers economically while conserving ecosystems.