

NATURAL FARMING

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Context:

In her Budget proposals for 2024-25, Union Finance Minister Nirmala Sitharaman announced that over the next two years, one crore farmers nationwide will be introduced to natural farming, supported by certification and branding initiatives.

Background:

Among states, Andhra Pradesh is a front runner in adopting natural farming but studies have raised concerns about the sustainability and yield (productivity) potential of this farming method.

National Mission on Natural Farming (NMNF):

- 1. Government through the mission intends to motivate farmers to adopt chemical-free farming.
- 2. The natural farming scheme under the 'Bharatiya Prakritik Krishi Paddhati' has a total outlay of ₹4,645.69 crore for six years (2019-20 to 2024-25).
- 3. Government believes that the success requires a behavioural shift from chemical-based to cow-based, locally-produced inputs.

What are the features and benefits of Natural Farming?

- 1. No chemical fertilizers and pesticides used.
- 2. Promotes traditional indigenous practices.
- 3. Emphasizes on-farm biomass recycling, biomass mulching, cow dung-urine formulations, botanical pest control, and exclusion of synthetic chemicals.
- 4. Improves natural nutrient cycling and soil organic matter.
- 5. It is a a diversified farming system integrating crops, trees, and livestock allowing the optimum use of functional biodiversity.
- 6. Potential benefits: increased farmer income, restored soil fertility, improved environmental health, and reduced greenhouse gas emissions.

Challenges and Concerns:

- 1. Large-scale transition is a matter of concern due to India's large population and food security needs.
- 2. Divergent results from studies on Zero Budget Natural Farming (ZBNF):
- 3. CESS Study (Andhra Pradesh): Lower costs of biological inputs, improved yields and incomes for farmers.
- 4. ICAR-IIFSR Study: Significant decline in wheat (59%) and basmati rice (32%) yields, raising concerns about sustainability and productivity.

Lessons from Sri Lanka:

- 1. Complete shift to organic farming led to economic and political turmoil in Srilanka.
- 2. Ban on chemical fertilizers resulted in fertilizer shortages, reduced crop yields, food security risks, price escalations, and protests.

Way Forward:

- 1. Extensive studies and scientific assessments needed before large-scale adoption.
- 2. Natural farming could be beneficial locally but may not be viable nationwide due to food security concerns.
- 3. Noted economist M.S. Sidhu recommends rigorous scientific tests, especially on crop yields, before nationwide implementation.
- 4. Suggests using natural farming for supplementary foodstuffs rather than staple cereals like wheat and rice.

