

## ROADMAP FOR CLIMATE RESILIENT AND ORGANIC AGRICULTURE: ENVIRONMENT

**NEWS:** Parliamentary Panel Report Reveals India's Farm Reforms are Leaving Farmers Vulnerable

### WHAT'S IN THE NEWS?

The Estimates Committee Report (2024–25) highlights the urgent need for India to adopt climate-resilient, natural, and organic farming practices amid rising climate risks, soil degradation, and farmer distress. It calls for mainstreaming agroecological approaches through institutional reform, market support, and integration with national schemes.

### Context

- The Committee on Estimates (2024–25) has presented its Sixth Report to the Parliament.
- It emphasizes India's **urgent need for systemic transformation in agriculture**, especially in the context of **increasing climate change vulnerabilities**.

### Key Focus of the Report

- Lays out a **transformative blueprint** for Indian agriculture.
- Focuses on three pillars:
  - **Adoption of climate-resilient agricultural practices.**
  - **Promotion of natural and organic farming systems.**
  - **Strengthening grassroots agricultural institutions like Krishi Vigyan Kendras (KVKs).**

### Agricultural Vulnerabilities in India

- **Climate Change Impact:**
  - Crop yields are projected to decline by **4.5% to 9% in the medium term**.
  - As per IPCC data:
    - **310 districts** are vulnerable.
    - **109 districts** are at **very high risk**.
    - **201 districts** are **highly vulnerable**.
- **Soil Degradation:**
  - **30% of India's land** suffers from soil degradation.
  - Intensive use of **chemical fertilizers and pesticides** has caused:

- Loss of soil organic matter.
- Nutrient imbalance.
- Reduced ecosystem services and productivity.
- **Rising Input Costs:**
  - Green Revolution techniques now show **diminishing returns**.
  - Costs of inputs (fertilizers, seeds, energy) are increasing faster than farm incomes.
  - This trend has contributed to:
    - **Farmer indebtedness.**
    - **Increase in farmer suicides.**

### **Government Initiatives for Natural and Organic Farming**

- **National Mission on Natural Farming (NMNF):**
  - Launched as an **independent scheme from 2023–24**.
  - Scaled up from the earlier **Bhartiya Prakritik Krishi Paddati (BPKP)**.
  - Encourages **chemical-free, natural farming**.
- **Paramparagat Krishi Vikas Yojana (PKVY):**
  - Launched in **2015–16** as a **Central Sector Scheme**.
  - Promotes **cluster-based organic farming**.
  - Implements **Participatory Guarantee System (PGS)** for organic certification.
- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER):**
  - Specifically designed for the **North East region**.
  - Leverages traditional and biodiversity-rich farming systems.
  - Supports organic production and value chains.

### **Challenges in Transitioning to Natural/Organic Farming**

- **Yield drop** observed in initial years of transition.
- Complexity in the **certification process** for organic produce.
- **Market linkages** are still **weak and fragmented**.
- **Awareness gaps** and insufficient **training** among farmers.
- **Financial vulnerability** of smallholders due to lack of crop insurance or safety nets.

## Key Recommendations of the Committee

- **Mainstream climate-resilient agriculture** into flagship schemes like:
  1. **PM-KISAN**,
  2. **MGNREGA**, and
  3. **Rashtriya Krishi Vikas Yojana (RKVY)**.
- Provide **green subsidies** to reward farmers who offer **ecological services**.
- Develop a **national-level framework** for agroecological transition:
  - Integration of research, extension, and market development.

## Way Forward

- Expand **NICRA interventions** to cover more vulnerable districts.
- Promote **agroecological clusters** using natural and organic farming models.
- Ensure proper **certification and branding** of organic produce:
  - Build **consumer trust**.
  - Increase **export potential**.
- Empower **Krishi Vigyan Kendras (KVKs)** with:
  - **Digital infrastructure**,
  - **Decentralized funding** for local innovations.
- Enhance **inter-ministerial convergence**:
  - Between Ministries of **Agriculture, Environment, and Rural Development**.

## National Innovations in Climate Resilient Agriculture (NICRA)

- **Launched in 2011** by the **Indian Council of Agricultural Research (ICAR)**.
- Objective: Equip Indian agriculture to **adapt and respond to climate change**.
- Multi-disciplinary and multi-institutional initiative.

## Key Components:

1. Strategic research on **climate-resilient varieties** (crops, livestock, fisheries).
2. **Technology demonstrations** in climate-vulnerable districts.
3. **Capacity building** of farmers and extension workers.

4. Upgrading **infrastructure** in research and extension institutions.

**Key Achievements:**

- Developed **2,900+ climate-resilient varieties** (e.g., heat-tolerant wheat, drought-resistant rice).
- In NICRA-adopted villages:
  - **28–37% increase** in crop productivity.
  - **10–12% improvement** in livestock yields.
  - **35–40% rise** in farm incomes compared to non-NICRA villages.

**Source:** <https://www.prameyanews.com/parliamentary-panel-report-reveals-indias-farm-reforms-are-leaving-farmers-vulnerable->