



Climate-Resilient Agriculture (CRA)

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News Context: In January 2026, policy reports highlighted that **51% of India's net sown area** remains rainfed, making the scaling of CRA a non-negotiable for national food security.

The Evolution of Resilient Farming

- **The "Triple Win" Objective:** CRA aims to simultaneously (1) Increase agricultural productivity, (2) Enhance farm-level adaptation (resilience), and (3) Reduce greenhouse gas (GHG) emissions.
- **National Innovations in Climate Resilient Agriculture (NICRA):** Launched by ICAR in 2011, it has transitioned from mere research to **Demonstration Hubs** in 100+ most vulnerable districts.
- **Key Technological Interventions:**
- **Varietal Adaptation:** Development of drought-tolerant (Sahbhagi Dhan) and heat-tolerant (PBW 803) seeds.
- **System of Rice Intensification (SRI):** Reduces water usage by 30–50% and methane emissions by nearly 40%.
- **Conservation Agriculture:** Practices like **Zero-Tillage** and **Cover Cropping** that prevent soil erosion and improve carbon sequestration.