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CLIMATE-RESILIENT AGRICULTURE (CRA) IN INDIA

Climate-Resilient Agriculture

FAO defines Climate-resilient Agriculture (CRA) as "**the capacity of agricultural systems** to **anticipate, adapt to, absorb, and recover from climate change impacts** and extreme weather."

Climate change impacts agriculture through cyclones, floods, erratic or delayed monsoons, droughts, prolonged heatwaves, soil degradation, pests, and reduced productivity. It threatens farm incomes, food security, and rural livelihoods, especially smallholders. CRA helps reduce vulnerability and improves adaptive capacity.

Key Outcomes of CRA

ECONOMIC

Improved and stable crop yields

Diversified, improved farm incomes

FOOD & NUTRITION SECURITY

Accessible nutrient-rich crops (millets, pulses, staples, organic vegetables, fruits)

Kitchen or Community-gardens for nutrition

RESOURCE EFFICIENCY

Improved water-use efficiency

Soil fertility restoration

ENVIRONMENTAL BENEFITS

Reduced emissions and chemical use

Biodiversity conservation, aiding farm fertility and pest control

Priority Practices for Promotion

- Direct Seeded Rice (DSR), Climate-Adapted, quick-maturing seed varieties
- Crop diversification, multiple cropping and natural farming practices
- Rainwater harvesting structures (farm ponds, tanks), Community Watershed Management (check dams, contour bunds, afforestation)
- Integrated farming and nutrient management systems
- Livestock integration and manure, farm-waste recycling or use

Major Government Initiatives

NICRA (National Initiative on Climate Resilient Agriculture): Climate-resilient technology demonstration at village-level

District Agriculture Contingency Plans (DACPs): Climate risk planning at district-level

National Mission for Sustainable Agriculture (NMSA): Sustainable agriculture mission to enhance productivity, soil health, and water use efficiency

PMKSY (Per Drop More Crop): Enhances water efficiency under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)

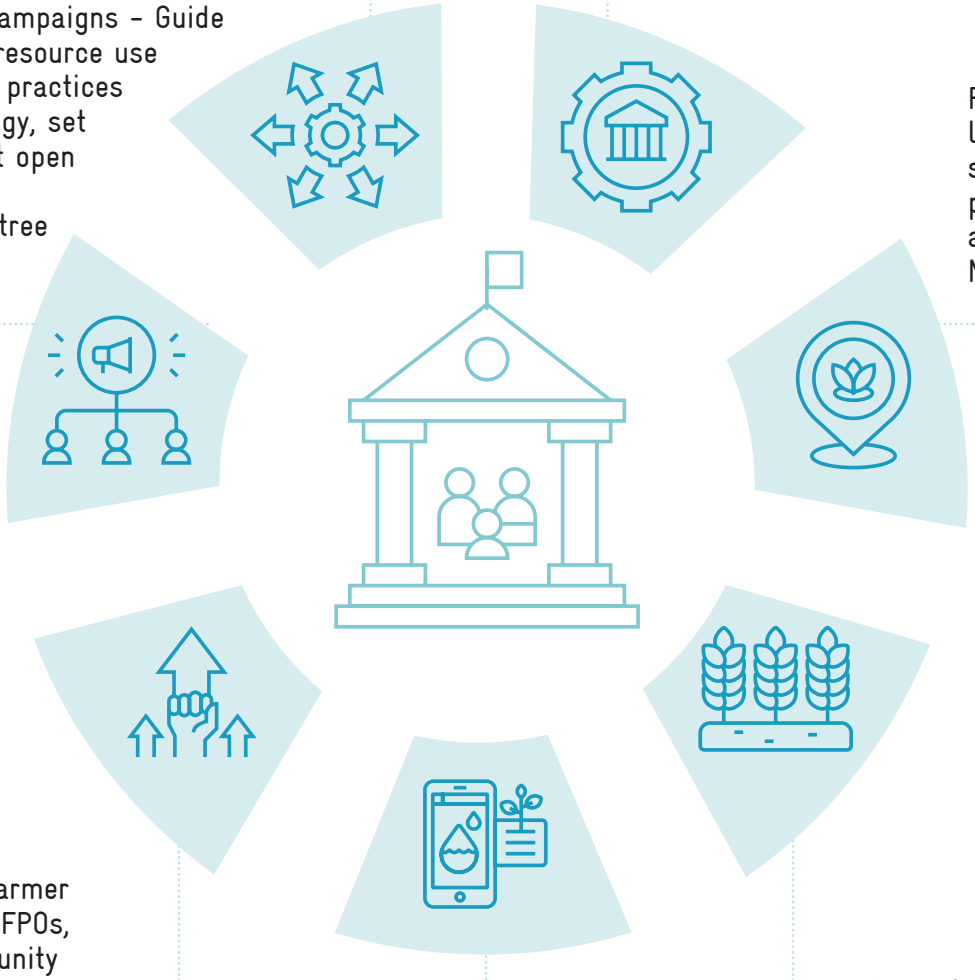
Seed Village Program (Beej Gram Yojana): Under the **Sub-Mission on Seeds and Planting Materials (SMSP)**, focuses on quality seed production, certification and distribution

Role of Government Functionaries

Enable convergence across departments, links with non-profits building rural, climate change resilience and natural farming

Policy & Institutional Support: Understand NICRA components and help implement District Agriculture Contingency Plans (DACPs).

Support capacity building and awareness campaigns - Guide sustainable resource use through CRA practices and technology, set rules against open grazing and unregulated tree cutting



Promote location-specific, CRA practices and Per Drop More Crop

Strengthen farmer institutions (FPOs, SHGs, Community Watershed Management Societies) to develop CRA and market linkages

Promote activities under National Millet Mission in rainfed-regions

Facilitate access to schemes, seeds, watershed and technologies

Final Takeaway- Seed the Change

Climate-Resilient Agriculture is essential for ensuring sustainable productivity, farmer resilience, and long-term food security in India

FROM POLICY TO PLATE: BUILD CLIMATE-RESILIENT FARMING

Every suitable field intervention contributes to national climate resilience.

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