Financial Mechanisms for Climate Resilient Agriculture

Why in the news?

The current agricultural credit mechanisms have been increasingly adapted to address the emerging challenges of climate-resilient farming practices, providing financial support to farmers to help them adapt to the impacts of climate change.

What is climate resilient agriculture?

- **Climate Resilient Agriculture (CRA)** – It is an approach designed to enhance the ability of agricultural systems to withstand the impacts of climate change.
- **Components** - It involves a set of practices and technologies aimed at improving productivity, reducing vulnerability to climate-related risks, and promoting sustainable use of natural resources.
    - **Crops** - Crop varieties that can survive extreme weather conditions.
    - **Soil** - Practices like conservation agriculture help improve soil health and resilience.
    - **Water management** - Techniques include rainwater harvesting, micro-irrigation, and efficient irrigation scheduling
    - **Agroforestry** - Integrating trees into agricultural landscapes to improve biodiversity , soil health and farmer's income.
    - **Mitigation of greenhouse gas emissions** - Practices like carbon farming and reduced tillage help minimize agriculture's carbon footprint.

IIRR Hyderabad has released climate resilient rice varieties like the DRR Dhan 42 and the DRR Dhan 44, which focus on drought resilience.

In 2024, PM dedicated 109 climate-resilient and bio-fortified varieties of crops.

What are the agricultural credit mechanisms available for climate resilient agriculture?

- **Modified Interest Subvention Scheme (MISS)** – It is a centrally funded scheme under the Kisan Credit Card (KCC)

- **Features** - It provides 7% concessional interest rates on short-term agricultural loans.
- Farmers affected by natural calamities can have their loans restructured.

- In severe natural calamities, interest subvention and Prompt Repayment Incentive (PRI) is extended for up to five years with government

- **Agriculture Infrastructure Fund (AIF) –** AIF supports climate-resilient initiatives like decentralized solar power plants under PM-KUSUM, precision agriculture tools, and organic input production.

- **Features** - AIF provides medium to long-term loans for decentralized infrastructure development like farm gate storage, logistics, and post-harvest management to reduce losses and intermediaries.
- **Interest concessions** - Loans under AIF have a capped 9% interest rate and farmers receive a 3% per annum IS for loans up to Rs.2 crore.
- PM-KUSUM provides central subsidies up to 30% to 50% for the installation of standalone solar pumps and for solarizing existing grid-connected agricultural pumps.

- **Agri Fintech platforms** – Initiatives like Jai kisan, Hesa, ITC MAARS (Metamarket for Advanced Agriculture and Rural Services) helps farmers to use KCC and input loans facilitating the adoption of climate-smart agricultural practices.

- **National Bank for Agriculture and Rural Development (NABARD) Initiatives –** NABARD's Green Climate Fund (GCF) and the National Adaptation Fund for Climate Change (NAFCC) promote mitigation measures.
- **Additional livelihood support** - NABARD supports tribal families by providing financial assistance such as orchard development, animal husbandry and micro-enterprise initiatives.
- **Tech adoption** - NABARD funds digital agriculture projects which uses technologies like like IoT, AI, drones, and geospatial tools for efficient farm management.
- **Kisan Rin Portal** – It connects **1.89 lakh bank branches**, providing farmers easy access to financial resources.
- **Voluntary carbon market in Agriculture** - 11 projects have been registered under the Voluntary Carbon Market (VCM) in agriculture on the Veera VCS platform, which focuses on promoting sustainable farming practices.

Reference

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