Pradhan Mantri Krishi Sinchayee Yojna

For Prelims: Schemes Related to Agriculture, Central Sector Scheme, Precision Irrigation System,Accelerated Irrigation Benefit Programme, Har Khet ko Pani, Precision Irrigation

For Mains: Pradhan Mantri Kisan Sinchai Yojana, its Objectives and Significance

Why in News

Recently, the **Cabinet Committee on Economic Affairs (CCEA)** approved the extension of the **Pradhan Mantri Krishi Sinchayee Yojna (PMKSY)** till 2026, with an outlay of Rs 93,068 crore.

- The government also approved the **Accelerated Irrigation Benefit Programme (AIBP), Har Khet ko Pani (HKKP)**, and **watershed development components** of the PMKSY for four years to 2025-26.

Key Points

- **About:**
  - It is a **Centrally Sponsored Scheme (Core Scheme)** launched in 2015. Centre- States will be 75:25 per cent. In the case of the north-eastern region and hilly states, it will be 90:10.
    - It will benefit about 22 lakh farmers, including 2.5 lakh **scheduled caste** and two lakh scheduled tribe farmers.
  - In 2020, the Ministry of Jal Shakti launched **a mobile application for Geo-Tagging** of the components of projects under PMKSY.
  - It has **three main components** namely the **AIBP, HKKP** and **Watershed Development.**
    - **AIBP** was launched in 1996 with the **aim of accelerating the implementation of irrigation projects that exceed the resource capabilities of states.**
    - HKKP aims to create **new water sources through Minor Irrigation. Repair, restoration and renovation of water bodies,** strengthening carrying capacity of traditional water sources, construction rain water harvesting structures.
      - **It has sub components:** Command Area Development (CAD), Surface Minor Irrigation (SMI), Repair, Renovation and Restoration (RRR) of Water Bodies, Ground Water Development.
    - Watershed Development is the **effective management of runoff water and improved soil & moisture conservation activities** such as ridge area treatment, drainage line 5 treatment, rain water harvesting, in - situ moisture conservation and other allied activities o n watershed basis.
- **Objectives:**
  - **Convergence of investments in irrigation** at the field level.
  - To **expand the cultivable area** under assured irrigation (Har Khet ko pani).
  - To **improve on-farm water use efficiency** to reduce wastage of water.
  - To enhance **the adoption of precision-irrigation and other water saving technologies** (More crop per drop).
  - To enhance **recharge of aquifers and introduce** sustainable water conservation

practices by **exploring the feasibility of reusing treated** municipal based water for peri-urban agriculture and attract greater private investment in a **precision irrigation system.**

- **An aquifer** is **a body of porous rock or sediment saturated with groundwater.** Groundwater enters an aquifer as precipitation seeps through the soil. It can move through the aquifer and resurface through springs and wells.
- **Peri-urban agriculture** refers to **farm units close to town which operate intensive semi- or fully commercial farms** to grow vegetables and other horticulture, raise chickens and other livestock, and produce milk and eggs.
- **Precision Irrigation** is an innovative **technique that uses water wisely and helps farmers achieve higher levels of crop yield** in a minimal amount of water

- **Formulation:** It was formulated by **amalgamating following schemes:**
  - **Accelerated Irrigation Benefit Programme (AIBP) -** Ministry of Water Resources, River Development & Ganga Rejuvenation (now Ministry of Jal Shakti).
  - **Integrated Watershed Management Programme (IWMP) -** Department of Land Resources, Ministry of Rural Development.
  - **On-Farm Water Management (OFWM) -** Department of Agriculture and Cooperation (DAC).
- **Implementation:** Decentralized implementation through **State Irrigation Plan** and **District Irrigation Plan.**

Source: IE

VIHANGAM

Why in News

Recently, an **internet-based platform called 'VIHANGAM'** integrated with a Remotely Piloted Aircraft System (RPAS) at Mahanadi Coalfields Limited (MCL) was inaugurated.

Mahanadi Coalfields Limited

- It is **one of the major coal producing companies** of India. It is one of the eight subsidiaries of Coal India Limited.
- MCL was the **first coal company** to introduce environment-friendly Surface Mining technology in 1999.
- The biggest fleet of 66 Surface Miners is contributing 95%of the total coal production of the company.

Key Points

- **About:**
  - The system consists of a **Ground Control Station (GCS)**, an RPAS, internet lease line of 40 Mbps and VIHANGAM portal.
  - The system **enables real-time transmission of aerial video of mining activities** from mines to internet platforms which can be accessed through VIHANGAM portal by authorized personnel only having ID and password.
- **Remotely Piloted Aircraft System (RPAS):**
  - RPAS is one subset of the **Unmanned Aircraft System (UAS).**
  - There are **three subsets of Unmanned Aircraft-** Remotely Piloted Aircraft, Autonomous

Aircraft and Model Aircraft.
        - Drone is a layman terminology for Unmanned Aircraft (UA).
    - Remotely piloted aircraft have been divided into five categories based on their weight (existing rules).
        - **Nano** : Less than or equal to 250 grams.
        - **Micro** : From 250 grams to 2kg.
        - **Small :** From 2 kg to 25kg.
        - **Medium** : From 25kg to 150kg.
        - **Large :** Greater than 150kg
    - Remotely Piloted Aircraft consists of remote pilot station(s), the required command and control links and any other components, as specified in the type design.
- **Other Initiatives Using UAVs:**
    - The Ministry of Health and Family Welfare has launched a Drone-Based vaccine delivery model named, **Drone Response and Outreach in North East (i-Drone)**.
    - Telangana government has selected 16 Primary Healthcare Centres (PHCs) for pilot testing the ambitious **'Medicine from the sky', the first-of- its-kind project.**
    - The **International Crops Research Institute (ICRISAT)** was permitted to deploy drones for agricultural research activities, apart from some agriculture universities and educational institutions.

Source: PIB

Water Innovation Challenges Initiative

Why in News

Recently, the **second edition of water innovation challenges** was announced to address the global water woes through innovations.

Key Points

- **About:**
    - It was announced by the **Atal Innovation Mission**, **NITI Aayog** and the Royal Embassy of Denmark to India as part of the **Indo-Danish Bilateral Green Strategic partnership** in 2020.
        - An important driving force in the **green transition – and the Green Strategic Partnership -** is technology, especially entrepreneurship driven technology.
        - The **water challenge will foster this,** but also bring it to on the ground implementation.
    - This collaboration will **provide solutions to improve sustainable water supply** in India and at the global level.
        - The winners of the challenges will also represent India at the **International Water Congress 2022.**
- **Objective:**
    - The initiative aims to **identify innovative & next-gen solutions in the water sector** to solve proposed challenges in collaboration with corporate and public partners.
        - The initiative will **engage young talents from leading universities and innovation hubs** across the nation to build their skills and apply their technical

disciplines and innovation capacity.

- **Need:**
    - For India, it is significant because **India is currently facing massive water challenges,** which in recent years have become one of the most urgent policy issues.
    - The problem ranges across **depleting underground water levels**, unsafe drinking water, water loss due to inadequate sewerage systems, access to water and untreated wastewater polluting India's major rivers.

Green Strategic Partnership

- In September 2020, **India and Denmark entered into a new age Green Strategic Partnership** following a virtual summit chaired by both prime ministers. //

- India and Denmark **both have ambitious goals** within the **climate agenda** and are including more **sustainable practices day by day.**
- The Green Strategic Partnership provides a **perfect framework** because it emphasizes how **international collaboration can help accelerate the green transition** and deliver on global goals.
- The Partnership focuses on **expanding economic ties, green growth, and cooperation on global challenges** such as **climate change.**
    - Green growth is a term to describe a path of economic growth that uses natural resources in a sustainable manner.
- Danish companies with niche technologies and expertise have offered to help India in meeting its **air pollution** control targets, including in the key area of tackling the problem of **burning crop stubble.**
- Other key points under the partnership include dealing with the **Covid-19 pandemic** and cooperation in water efficiency and water loss.
- The creation of **India-Denmark energy parks** in areas with large numbers of Danish firms and an India-Denmark skill institute to train Indian manpower has been proposed.
- The Green Strategic Partnership builds on an existing Joint Commission for Cooperation and existing joint working groups.

Source: PIB
