Odisha's Integrated Irrigation Project for Climate Resilient Agriculture

The Government of India, Government of Odisha and the **World Bank** on 24th October 2019 signed a **$165 million loan agreement** for the Odisha's Integrated Irrigation Project for Climate Resilient Agriculture.

About Project

- The project aims to **support small landholding farmers** in order to strengthen the resilience of their production systems against adverse climatic conditions by improving access to **climate resilient seed varieties and production technologies.**
- For **increasing the income** of the farmers, the project strives to **diversify** towards more climate-resilient crops and **improve access** to better water management and irrigation services.

  The project will also provide **marketing support** to farmers who are able to generate a marketable surplus.
- The project will be implemented in **rural areas** that are **vulnerable to droughts** and are largely **dependent on rainfed agriculture.**

  It is expected to benefit about 125,000 smallholder farmer households from 15 districts of Odisha.
- The project also aspires to support the **rehabilitation of 532 water tanks** thereby:
  - Promoting the **productivity improvements** at the farm level,
  - Supporting farmers to reduce the current emphasis on food grains (especially paddy- a water guzzler crop) and **increase the share of high-value and more nutritious products** like fruits and vegetables, and
  - Practising **aquaculture** in rehabilitated tanks so as to help farmers access affordable and quality fingerlings, and disseminate improved aquaculture practices and post-harvest management.

- This project is under the **National Action Plan on Climate Change (NAPCC)** of the government so as to achieve the **sustainable agriculture-related targets** of the SDGs by 2030.

    There are **8 national missions** that form the core of the NAPCC representing the multi-pronged, long term and integrated strategies for achieving key goals in climate change.

Need for Project

- Since 2009, the frequency of droughts in Odisha has increased from 1 in 5 years to 1 in 2 years.
- About 70% of the total cultivated area is prone to droughts as compared to 40% in the 1970s.
- In Odisha, agriculture is also a major source of **Greenhouse Gas (GHG) emissions** and is responsible for about 25% of the GHG emissions in the state.
- Such erratic and extreme weather are responsible for declining yields and falling incomes of the farmers.

Greenhouse Gases (GHG)

- These are the gases that absorb and emit radiant energy within the thermal infrared range.
- **Primary GHGs** are- water vapour, carbon dioxide, **methane,** nitrous oxide, and ozone.
- GHGs create Greenhouse Effect which is the process by which radiation from a planet's atmosphere warms the planet's surface.

Way Forward

The project is intended to be a game-changer for the State by creating a more resilient agricultural sector, enhancing food security, increasing farmers' incomes and reducing the GHG footprint of the sector.

Source: PIB