



Evaluation of National Monsoon Mission

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Why in News

Recently, the **National Council of Applied Economic Research** (NCAER) has evaluated the economic benefits of the National Monsoon Mission (NMM).

Established in **1956**, NCAER is India's **oldest and largest independent, non-profit, economic policy research institute**, based in **New Delhi**.

Key Points

- The study spanned **across 173 rain-fed districts** in **16 states** which appropriately represented agro-climatic zones, rain-fed areas, coverage of major crops, and incidence of extreme weather events in the country. It was conducted on behalf of the **Ministry of Earth Sciences** (MoES).
- The study refers to **economic benefits as direct monetary gains to crop farmers, livestock rearers, and fishermen** in the country.
India's investment of nearly **Rs. 1,000 crore** in the NMM and **High-Performance Computing (HPC) facilities** would provide benefits worth Rs. 50,000 crore to nearly 1.07 crore Below Poverty Line (BPL) agricultural households and 53 lakh BPL fisherfolk households in the country.

- The **total annual economic benefits** to agricultural households, farmers and livestock owners taken together, has been calculated at **Rs. 13,331 crore** and the **incremental benefits over the next five years** are estimated to be about **Rs. 48,056 crore**.

The benefits are from accurate weather forecasting by the **India Meteorological Department** (IMD) and other agencies working under the Ministry of Earth Sciences.

 - **Agro-meteorological services** for farmers is one of the most prominent weather services of IMD.
 - Every day Ocean **State Forecast** (OSF) and **warnings** to fishermen going out to the sea by the **Indian National Centre for Ocean Information Services** (INCOIS) helped in **elimination of less or not so productive trips** to the ocean.
 - **Potential Fishing Zone (PFZ) advisories** resulted in successful trips generating additional catches.

- **Data Analysis of the Benefits:**

- Based on weather advisories, **98% farmers made modifications** such as changing variety/breed of the crop, arranging storage of harvest, early/delayed harvesting, changed crop, early/delayed sowing, changed the schedule of ploughing/land preparation, changed pesticide application schedule, changed fertiliser application schedule and changed scheduled irrigation.
- **94% of farmers** were able to **avoid losses and increase income** because of services provided through NMM.
- **82% of fishermen** surveyed, reported **using OSF advisories** before they venture into the sea every time.
- A total of approximately Rs 1.92 crore additional income was generated from **1,079 successful fishing expeditions made using PFZ advisories**.

National Monsoon Mission

- It was launched by the **Ministry of Earth Sciences in 2012**.
- **Aim:** To improve the forecasting skills by setting up a state-of-the-art dynamic prediction system for monsoon rainfall different time scales.
- NMM builds a **working partnership between the academic and research and development (R&D) organisations**, both **national and international**.
- Its **augmentation with the HPC facilities** has helped the country in achieving a paradigm shift in weather and climate modelling for operational weather forecasts.

Source: IE