NEXT IAS

DAILY EDITORIAL ANALYSIS

TOPIC

OVERFISHING: A THREAT TO OCEAN WEALTH AND LIVELIHOODS

OVERFISHING: A THREAT TO OCEAN WEALTH AND LIVELIHOODS

Context

- India's marine fisheries sector has reached its maximum potential yield, however it needs to take decisive steps to ensure sustainable fishing practices, balancing economic growth with marine conservation.

India's Fisheries Sector

- India is the **second largest fish producing country** with **around 8% share in global fish production.**
- It has vast and diverse inland fisheries resources, including 0.28 million km of rivers and canals, 1.2 million ha of floodplain lakes, 2.45 million ha of ponds and tanks, and 3.15 million ha of reservoirs.
- I**ndia's marine fisheries potential** is estimated at 5.31 million tons, with activities spread across the country's vast coastline and Exclusive Economic Zone (EEZ).

Concerns Related To Fisheries Sector in India

- **Stabilised Yields, Unequal Gains:** India's marine fisheries sector has stabilized at **around three to four million tonnes** of capture per year.
  - However, **small-scale fishers make up 90%** of the fishing population but catch **only 10% of the total volume**, while **larger mechanized fishing** operations dominate the industry.
- **Ecological Consequences:** Overfishing has led to **juvenile fishing**, where **smaller mesh sizes allow sub-legal fish to enter nets**, depleting spawning stock biomass and causing long-term declines in commercially important species like **sardine and mackerel**.
  - It mirrors global collapses like **Canada's Northern Cod crash (1992) and California's Pacific sardine collapse (1960s–1980s)**
- **Policy Fragmentation and Regulatory Loophole:** Each Indian coastal state has its own **Marine Fisheries Regulation Act (MFRA)**, creating a **regulatory patchwork**.
  - Fishers exploit these gaps — landing **juvenile fish** in one state that would be illegal in another.
  - It enables the laundering of protected species and obstructs conservation.

Government Efforts & Initiatives

- **Union Budget 2025-26:** It proposed the **highest ever** total annual budgetary support of Rs. 2,703.67 crores for the fisheries sector.
  - It highlights **enabling a framework for sustainable harnessing of fisheries** from **EEZ and High Seas** with special focus on Lakshadweep and A&N Islands.
- **National Fisheries Development Board (NFDB):** It oversees fisheries development, ensuring sustainable practices and supporting fish farmers.
- **Pradhan Mantri Matsya Sampada Yojana (PMMSY**): It delves into the domain of inland fisheries and aquaculture, recognizing their pivotal role in bolstering production and ensuring robust food security.
- **Blue Revolution Scheme:** It focuses mainly on increasing fisheries production and productivity from aquaculture and fisheries resources, both inland and marine with its multi-dimensional activities.
- **Technological Advancements:**
  - **Satellite Technology Integration:** National Rollout Plan for Vessel Communication and Support System, application of Oceansat, Potential Fishing Zones (PFZ) etc.
  - **GIS-Based Resource Mapping:** For mapping marine fish landing centers and fishing grounds, aiding in effective resource management.

India's Sustainable Fishing Efforts

- **National Policy on Marine Fisheries (2017):** It focuses a strong emphasis on **sustainability as the core principle** for all marine fisheries actions. It guides the conservation and management of India's marine fishery resources.

- **Regulation and Conservation Measures:**
  - **Uniform Fishing Ban:** A 61-day uniform fishing ban **during the monsoon season** in the EEZ to allow fish stocks to replenish.
  - **Prohibition of Destructive Fishing Methods:** Bans on pair trawling, bull trawling, and the use of artificial LED lights in fishing.
  - **Promotion of Sustainable Practices:** Encouraging sea ranching, the installation of artificial reefs, and mariculture activities such as seaweed cultivation.

Best Practices

- **New Zealand's Quota Management System (QMS):** It aligns science with policy through:
  - Total allowable catch based on stock assessments
  - Transferable quotas for various fishing sectors
  - Stabilised and rebuilt fish stocks over decades.
  - India could pilot a QMS model for its large mechanised fleet, ensuring fishing quotas reflect ecological health — not vessel size or engine power.
- **Kerala's Minimum Legal Size (MLS) Strategy:** It led to a 41% catch increase within a single season. It proves that allowing fish to reach maturity before capture ensures both better yields and higher incomes.

Way Forward

- **Towards a Unified, Science-Based Framework,** India needs to harmonise its fisheries management through:
  - National **Minimum Legal Size (MLS)** for species;
  - **Gear restrictions** to reduce juvenile catch;
  - **Closed seasons** based on spawning cycles;
  - **Scientific catch limits** for all fleets;
- A cohesive, science-driven framework would streamline enforcement and protect marine biodiversity.
- **Multi-Level Action is Critical:** There is a need that India should harmonize regulations into a national standard, integrating scientifically established catch limits, uniform minimum legal sizes, fishing gear restrictions, and closed seasons.

Source: TH

Mains Practice Question

[Q] Considering the ecological and economic consequences of overfishing, should India adopt a stricter national regulatory framework similar to the quota management system of New Zealand?

■■■■