



Deep Sea Fish Conservation

Prelims: Purse Seine Fishing, Exclusive Economic Zone, UNCLOS, Total allowable catch

Mains: Purse Seine Fishing Technique and its concerns, Conservation Efforts for Marine Animal Resources

Why in News?

Supreme Court (SC) has given **permission to fishermen using Purse Seine Fishing gear to fish beyond territorial waters (12 nautical miles) and within the Exclusive Economic Zone (EEZ)** (200 nautical miles) of Tamil Nadu but observing certain restrictions.

- This comes in the **backdrop** against the **banning of purse seine fishing by the Tamil Nadu Government** in February 2022.
- SC has **restricted the purse seiner to fish on two days**, Monday and Thursday from 8am to 6pm revoking the complete ban imposed by Tamil Nadu government.

What are the Concerns?

- **Insufficient Conservation Efforts:**
 - Court's order **seems to be more concerned about regulating fishing** with administrative and transparency measures **than about the conservation measures** and obligations under the **United Nations Convention on the Law of the Sea (UNCLOS)**.
 - Under **UNCLOS**, coastal states have sovereign rights to **ensure that the living and non-living resources of the EEZ are used, conserved and managed, and not subject to overexploitation**.
 - In order to prevent overexploitation, coastal States must determine the total **allowable catch (TAC)** in the EEZ.
 - **Restricting the purse seiner to fish on two days is not sufficient** without regulating fishing methods.
- **Threatens Livelihood of Traditional Fishers:**
 - **Purse seiners tend to overfish**, unlike traditional fishermen using traditional fish gear, thus **endangering the livelihood of the traditional fisher**.
 - It is a **non-targeted fishing gear** and **catches all sorts of fishes** which come in the way of the net, **including juveniles**. Hence, they are very much detrimental to marine resources.
- **Threat to Food Security:**
 - A major concern is the dwindling availability of oil sardines, a favourite of Kerala fish eaters.
 - In 2021, Kerala recorded a catch of just 3,297 tonnes of sardine, a sharp decrease from the haul of 3.9 lakh tonnes in 2012.
- **Threatens Endangered Species:**
 - Non-selective fishing methods by purse seiners resulting in the **by-catch of other marine living species** (which could include **endangered species too**) may threaten with a potential trade embargo.

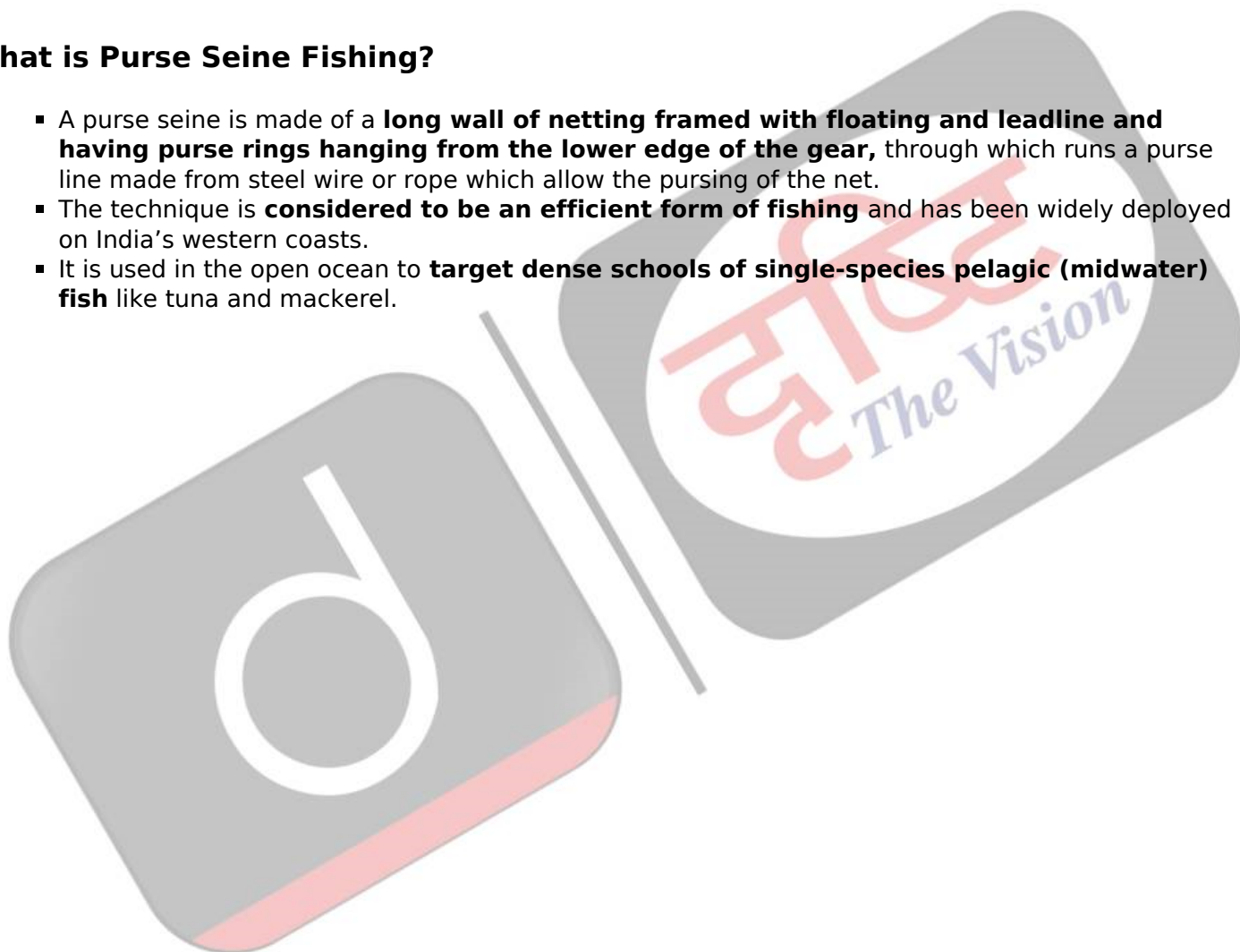
What is UNCLOS?

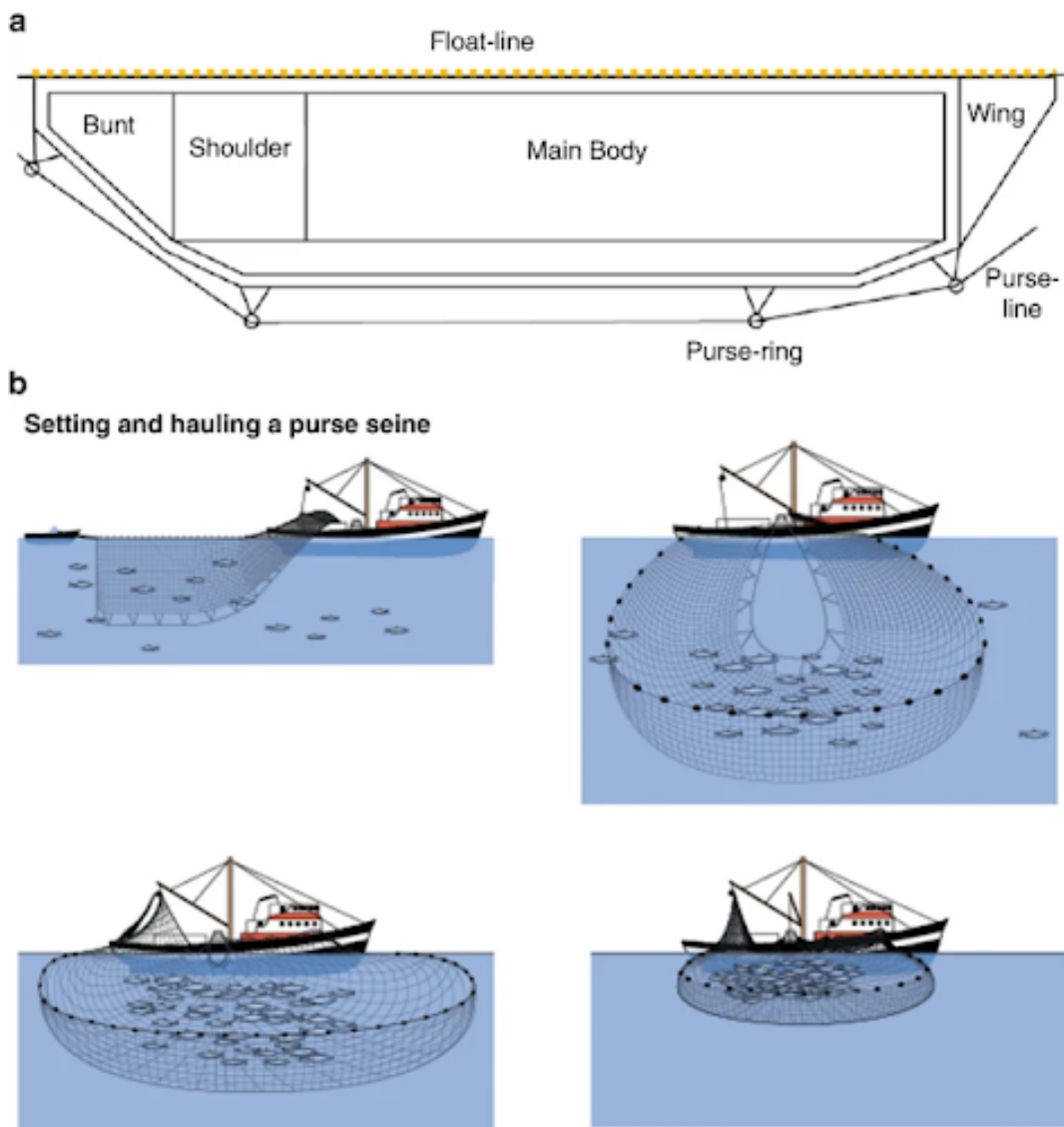
- The **UNCLOS, 1982** is an international agreement that establishes the legal framework for marine and maritime activities.
- It is also known as **Law of the Sea**. It divides marine areas into **five main zones** namely- **Internal Waters, Territorial Sea, Contiguous Zone, Exclusive Economic Zone (EEZ)** and the **High Seas**.
- It is the only international convention which **stipulates a framework for state jurisdiction in maritime spaces**. It provides a different legal status to different maritime zones.
- It provides **the backbone for offshore governance by coastal states and those navigating the oceans**.
- It not only zones coastal states' offshore areas but also **provides specific guidance for states' rights and responsibilities** in the five concentric zones.

What is Purse Seine Fishing?

- A purse seine is made of a **long wall of netting framed with floating and leadline and having purse rings hanging from the lower edge of the gear**, through which runs a purse line made from steel wire or rope which allow the pursing of the net.
- The technique is **considered to be an efficient form of fishing** and has been widely deployed on India's western coasts.
- It is used in the open ocean to **target dense schools of single-species pelagic (midwater) fish** like tuna and mackerel.

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What are the Conservation Efforts for Marine Animal Resources?

- **The [United Nations](#) General Assembly passed Resolutions in 1989 and 1991:**
 - It called for a moratoria on all large-scale pelagic drift net fishing vessels in high seas.
- **[UN \(United Nations\) Ocean Conference 2002:](#)**
 - To ensure global cooperation towards protection and **sustenance of the Ocean ecosystem** of the world.
- **[One Ocean Summit:](#)**
 - Combating illegal fishing, decarbonising shipping and reducing plastic pollution.
- **Convention for the Conservation of Southern Bluefin Tuna 1993 (SBT):**
 - The objective of this Convention is to ensure, through appropriate management, the conservation and optimum utilisation of southern bluefin tuna
- **Convention for the Prohibition of Fishing with Long Drift Nets 1989:**
 - It is a regional convention in the South Pacific to restrict port access for drift net fishing vessels.
- **Tarawa Declaration 1989:**
 - It is a declaration of the **South Pacific Forum** to prohibit the use of large drift nets or at least call for their prohibition.

Conclusion

Garrett Hardin's concept of the '[Tragedy of the Commons](#),' which suggests that "Freedom in a commons brings ruin to all," should serve as a compelling argument for authorities, fishermen, particularly

purse seiners, to work together and adhere to conservation efforts.

UPSC Civil Services Examination Previous Year Questions (PYQs)

Prelims

Q. Other than poaching, what are the possible reasons for the decline in the population of Ganges River Dolphins? (2014)

1. Construction of dams and barrages on rivers
2. Increase in the population of crocodiles in rivers
3. Getting trapped in fishing nets accidentally
4. Use of synthetic fertilizers and other agricultural chemicals in crop-fields in the vicinity of rivers.

Select the correct answer using the code given below:

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1, 3 and 4 only
(d) 1, 2, 3 and 4

Ans: (c)

- Habitat of Ganges River Dolphins is freshwater mainly the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu River systems of Nepal, India, and Bangladesh. They are essentially blind. They hunt by emitting ultrasonic sounds, which bounces off of fish and other prey, enabling them to “see” an image in their mind.
- As per the study conducted by WWF-India, the causes of decline in population of Gangetic River Dolphins are:
 - Construction of dams and barrages on the rivers; **hence, 1 is correct.**
 - Dolphins getting trapped in fishing nets; **hence, 3 is correct.**
 - Use of synthetic fertilizers and other industrial pollutants around the vicinity of rivers. **hence, 4 is correct.**
- The increased population of crocodiles in the rivers has not been cited as a reason for the decline in population of Ganges River Dolphins. **Hence, 2 is not correct. Therefore, option (c) is the correct answer.**

Mains

Q. Defining blue revolution, explain the problems and strategies for pisciculture development in India. (2018)

Source: TH