

## Prohibited Fishing Practices: India

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### SUMMARY

The worldwide problem of illegal, unreported, and unregulated (IUU) fishing greatly impacts millions of people's livelihoods and marine ecosystems. An estimated 520 million people make their living from fishing and related activities. However, the growing demand for marine resources has brought about detrimental activities that break both national and international laws, like the use of insufficient nets, blast fishing, and poison fishing. Fish populations are decreased and these harmful approaches badly damage marine habitats. The ocean's biodiversity and coastal populations are two areas where the effects of IUU fishing are most noticeable. In addition to posing a threat to different species and upsetting food webs, overfishing also reduces the availability of seafood in coastal areas, which strains the local economies of those communities that depend on robust fish supplies.

### INTRODUCTION

Ocean provides the livelihood for an estimated 520 million people through fishing & related activities. Fish resources can be utilized as much as possible for the welfare and prosperity of the people (Haryanto, T. and Rosyadi, S., 2018). The global demand for marine resources ultimately pressures the fisheries, thus leading to destructive & prohibited fishing practices. The catching of juvenile fish of a target species can lead to growth overfishing and can thus lead to a decline in the resource of interest (Gjertsen et al., 2010). Prohibited fishing practices are the term subjecting to violation of national, regional or international fishing laws governing marine resources. Any fishing method can be destructive if improperly used or used to excess (Joeli et al., 1995). Prohibited fishing practices are also called illegal, unreported and unregulated fishing practices. IUU practices also put immense pressure on legal fishers, coastal communities and biodiversity. FAO formulates many agreements for the prevention, including recognising 5<sup>th</sup> June as the international day for the fight against IUU fishing. Hundreds of marine species are affected by the IUU fishing practices. IUU fishing involves various methods, including poisoning, explosive, and muramic. To evaluate regulations, IUU fishing vessels under-reported or failed to report their actual catch, thus causing an effective inquiry in the fish stock estimation. Unsustainable fishing affects the environmental stocks of both coastal and deep-sea resources. The illegal fishing practices increase the competition for resources and poor fishers

### Prohibited Fishing Practices:

**Use of Explosives:** Often referred to as "dynamite fishing" or "fish bombing," blast fishing is an extremely harmful and frequently prohibited method of fishing in which explosives are used to shock or kill schools of fish so that they can be easily collected. The explosions from this technique seriously damage the surrounding marine ecosystem by destroying the coral reefs and other underlying habitats vital to fish life.



**Poisoning:** The technique of employing poisonous materials to render fish helpless or dead, thus making them easier to catch, is known as "poison fishing." For ages, tribes worldwide have used this technique involving

natural and artificial poisons. The plant-based poisons are derris root powder and modern fishing poison includes cyanide, bleach, and pesticides (Veitayaki et al.,1995). Fish are killed or rendered unconscious using a variety of harmful chemicals, including bleaching powder (sodium hypochlorite), copper sulphate ( $\text{CuSO}_4$ ) and sodium cyanide. (Ranjan, D et al.,2023).



**Trawling Regulations:** In order to give fish stocks time to recover, India imposes an annual seasonal fishing ban (SFB) that prohibits motorized fishing for 61 days. During the closed season, this ban has effectively increased fish biomass by 5–9%.

- In Tamil Nadu, Pair trawling is banned under the TNMFR Act.
- According to TNMFRA,1983, Bottom trawling operations shall not be conducted within three nautical miles of the coastline.

**Regulations on Mesh size:** Nets with undersized mesh are prohibited to prevent juvenile fish capture, which is essential for maintaining sustainable fish populations.

According to, Tamil Nadu Marine Fishing Regulation Rules, 1983

- No gill net having a stretched mesh size of less than 25 mm. From knot to knot shall be used.
- No shrimp trawl net having a stretched mesh size less than 37 mm. Mesh opening of 25-mm at the Cod end shall be used.
- No fish trawl nets with a stretched mesh size of less than 75 mm at the wings and 40 mm at the cod end shall be used.
- Fishing within 100 metres below a river mouth is prohibited.

**Electric fishing:** Electrofishing is a technique that temporarily stuns the fish, making them easier to catch and it's been legally restricted in order to protect sustainable practices and stop overfishing.



**Restricted Gear activities:** Purse seine are nonselective fishing gear that can catch all type of fish. So due to declining stocks of some pelagic resource in east coast of india, purse seining is restricted but still operating on west coast.



**Spear Fishing with powered spearguns:** Spearfishing involves using handheld tools, such as harpoons or spearguns, to stab fish underwater. In India, spearfishing is restricted primarily to protect marine biodiversity. It was documented in August 2018 that the Gulf of Mannar coast is a high fishery resource area. Spear-fishing has become a significant threat to commercially important species in the Tuticorin region of the Gulf of Mannar.



**Illegal fishing:** Illegal fishing comprises of IUU fishing practice which posts to a thread to global biodiversity and affects the livelihood of fishers. Illegal fishing also involves of fishing by foreign vessel without the knowledge of state's government.

**Impact:**

The impact of prohibited fishing practices or IUU fishing can be observed under 2 categories, ocean biodiversity and coastal communities and food security.

**Ocean biodiversity:** Overfishing is a type of IUU fishing that causes population depletion and disrupts the marine ecosystem, The levels of bycatch are exponentially high by the use of IUU fishing, which in further step causes the endangered/protected species to be unintentionally caught as non-target species, Some IUU fishing practices cause the physical damage to the habitat, critical breeding and feeding grounds like deep sea ecosystem, seagrass meadows and coral reefs. In some specific cases, certain particular top predators or prey species populations are depleted, causing imbalance/disturbance in the ecosystem and food web, thus resulting in trophic cascades.

**Coastal communities:** The impacts of IUU fishing do not end within the marine ecosystem but also extend outside. The level of impact observed in the ecosystem is also seen in coastal communities and feed security. Prohibited fishing practices directly affect the small fishing communities as the fish stocks are depleted, causing minimal income and pushing them into poverty. Apart from coastal communities, normal people are dependent on fish resources, which become scarce due to less availability, leading to food insecurity. The IUU fishing indirectly causing economic loss for .

## CONCLUSION:

Controlling IUU fishing is critical for maintaining marine biodiversity and assisting coastal communities that rely on healthy fish stocks. These nonactions have far-reaching results in environmental degradation; this endangers millions of people's livelihoods and contributes to global food insecurity. To tackle IUU fishing, governments and international organizations must strengthen legislation and increase enforcement efforts. Further, understanding and practising sustainable fishing practices can encourage local communities to use responsible fishing methods. We can help to preserve our oceans for future generations by developing a culture of compliance with fishing restrictions and encouraging stakeholder collaboration.

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