the economic benefit accruing due to the incremental growth of fish during the ban period. The transaction cost thus estimated will help to derive the net social benefit due to the implementation of the SFB in the selected maritime states. The final result will be helpful in arriving at management decisions like continuation of the SFB to modify the management measures to improve the implementation process.

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Light fishing - conflicts and concerns in Maharashtra

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Technological intervention in the Indian fishing industry are intended to increase marine fish production of the country. Crude light fishing methods practiced in Mandapam was reported for catching silverbellies (Sekharan 1955, *Indian J. Fish.*, 1955; Anon., 1957, *Indian J. Fish*). Fishing experiments with light attraction for pelagic fishes using purseseines was conducted by Fishery Survey of India (Ninan and Sudarsan, 1988, *Occasional papers of Fishery Survey of India No. 5*) who reported that no aggregation was noticed in the areas where water turbidity was high and strong current (above 2 Knots) was present. Mohamed (2016) reviewed light fishing practices in India and suggested restrictions in power of lights used, area of operation, mesh size for exploitation etc (*Marine Fisheries Policy Brief No. 4, 2016, ICAR- CMFRI*).

In Maharashtra, the use of lights designed for fishing was limited earlier, and mostly confined to squid fishing boats (squid jigger) along the coast. Currently, high power light-emitting diode (LED) lights ranging from 2000-6000 watts are used by purse-seine net operators with the help of power generator, and almost all kinds of pelagic fish such as mackerel, tuna, seer fish, sardine, moon fishes, pelagic sharks etc. which are attracted to the light get netted.

Single boat light fishing operation is accomplished by a single boat, where high power LED lights are mounted on-board on purse-seiners. In some cases, submerged light bulb costing over ₹ 1 lakh is also used to attract fish when boat is anchored. This kind of operation is handled by single boat owner. Two boat light fishing operations are also observed where one specially fitted light providing vessel illuminates the sea. Once sizable fish congregate around the vessel, the purse seine net is operated by the second boat to encircle and capture the attracted fish resources. The light...
illuminating time depends upon the abundance of the fish resources in the region. This fishing practice was first observed in Raigad district of Maharashtra where the specialized vessel powered metal halide lamps of 1000 W and 4000 W with diesel generator (Total light capacity ranging from 20 to 30 kW). The profit shared between the owners of light provider boat and purse seine boat is in the ratio of 40:60. For this specific purpose as light providing vessel, few fishers have converted their traditional crafts 10-15m OAL (Over All Length). This system is being slowly adopted by the fishers of neighboring villages.

As per Marine fisheries census records (2010) Maharashtra has 435 numbers of purse-seiners. Following Karnataka and Goa, purse-seine fishers of Maharashtra are also adopting light fishing which has raised concerns as juvenile fish are caught along with mature fish and conflicts with the small-scale fishers arise. Hence appropriate regulations are of paramount significance.

Observations on the monsoon prawn fishery in Kerala

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The ban on trawling in Kerala from June 15th to July 30th coincides with the southwest monsoon. During the period fishermen venture into the sea with their traditional/motorised crafts and gears such as thermocol boats (Alapuzha) and Thanguvallom (Ernakulam and Thrissur). The latter is operated with outboard engines and operate up to 8 km from the shore. The thermocol boats fish very near the shore (up to 3 km). The gear operated are ring seines or thangu vala and gill nets. The unique phenomenon in the monsoon season known as mud-bank or ‘chakara’ is characterised by calm areas close to the shore. The area marked by nutrient rich water upwelled from the bottom layers to the surface favors aggregation of fishes and crustaceans and hence ideal for fishing. This plays a pivotal role in the livelihood of fishermen as it provide them opportunity to catch large quantities of fishery resources during the lean fishing period. But over the years there has been inconsistency in the appearance of mud bank with certain years having very poor mud bank formations. Erratic monsoons may be a reason for the diminishing mud banks and declining trend in the mud bank fishery (Kurup, 1979, Mar. Fish. Infor. Serv. T&E Ser., 12:12-13).

The monsoon prawn fishery in Kerala including the mud bank areas was studied based on samples collected during July 2015 from different fish landing centres in the Alapuzha (Punnapra, Paravoor, Kappakadavu, Thottappally), Ernakulam (Kalamukku, Chellanam), Thrissur (Chavakkad) and Malappuram (Chettuva, Ponnani) districts. Prawn samples were collected from both mud-bank and non-mud bank areas for the study. Comparison of the sex ratio of Metapenaeus dobsoni and Fenneropenaeus indicus and maturity stages of females between mud-bank and non-mud bank samples was done. Means of total length, weight, juvenile composition, length weight relationship and gastro somatic index of males and females of mud bank and non-mud bank samples were compared using standard methods.

Prawn fishery: An estimated 17377 outboard ring seine units and 17684 non-motorized ring seines were operated during the period (Table 1). Outboard