



“Trawl fisheries in Malaysia - issues, challenges and mitigating measures” (Nuruddin & Mohd. Isa)
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Trawl fisheries in Malaysia - issues, challenges and mitigating measures

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BACKGROUND

Trawl fisheries are an important component of the capture fisheries sector in Malaysia. Although small in terms of percentage of licenses issued (11.79%), their significance is underlined by their contribution to the overall landings (48.19%), as shown in the table below for the year 2011.

AREA	Number of licenses issued			Total Landings (tonnes)		
	Trawlers	Overall	% of trawlers	Trawlers	Overall	% by trawlers
West Coast Peninsular Malaysia	2,827	21,092	13.40	367,642	725,064	50.70
East Coast Peninsular Malaysia	1,162	9,273	12.53	152,521	323,077	47.21
Sabah, Sarawak & Labuan	2,127	21,527	9.88	141,588	324,965	43.57
Whole Malaysia	6,116	51,892	11.79	661,751	1,373,106	48.19

GOVERNANCE

Malaysian fisheries is governed by the Fisheries Act 1985 and other related regulations. Only licensed fishing vessels and fishing gears are allowed to operate in Malaysian fisheries waters. The capture fisheries sector is also regulated by a zoning system meant to separate fishing vessels by fishing method and size classes, to prevent conflict between traditional fishers and others, and to protect critical habitats, such as inshore waters where breeding and nursery areas occur.

Fishing is also prohibited around Marine Protected Areas (MPA) such as Marine Parks. Area closures are also in place for specific purposes, such as waters off Rantau Abang, Terengganu during the turtle nesting season and waters off Tanjung Tuan, Port Dickson, Negeri Sembilan. Apart from Zone A mentioned above, there are no closed areas specifically for trawlers.

Since the zoning system had been in place for a very long time, it is difficult to ascertain its impact on the current biological and stock status of the fish resources.

The zoning system is based on distance from shore as shown below:

Zone	Limits	Fishing methods allowed
A	Less than 5 nautical miles from shore	All methods except trawlers and fish purse seines and any fishing vessel greater than 40 GRT (including those operating traditional fishing gears).
B	5 to 12 nautical miles from shore	All methods except trawlers and fish purse seines greater than 40 GRT.
C	12 to 30 nautical miles from shore	All methods except trawlers and fish purse seines greater than 70 GRT.
C2	More than 30 nautical miles from shore	All methods.

ISSUES RELATED TO TRAWL FISHERIES

There are, however, a number of issues and challenges related to the capture fisheries sector. Some of these concern all fishing methods while others are closely linked to the trawl fisheries; with varying degrees of importance. So far, there has not been any attempt to prioritise these issues and they are dealt with as they arise or when the prevailing situation dictates that measures should be put in place to address them.

Major issues related to the trawler fisheries are listed below, but not in order or significance or priority.

1. Overcapacity

It is suspected that there is overcapacity in the trawl fisheries, especially in the inshore waters, i.e. less than 30 nautical miles from shore. This suspicion or assumption is partly based on anecdotal evidence, such as grievances voiced by some fishers on declining catches. A number of C2 trawlers are currently having difficulty to meet their requirement of landing a minimum of 250 tonnes annually, as a condition for renewing their license. However, there has not been any recent scientific assessments to ascertain the degree of overcapacity objectively. This situation is compounded by a lack of recent scientific data on the status of the fish resources, such as estimation of biomass.

Mitigating measures:

- A moratorium on the issuance of new trawler license had been in placed since 1980, particularly for the inshore waters. Currently, fishing permits are only considered for the offshore waters; more than 30 nautical miles from shore (Zone C2), for trawlers greater than 70 GRT.
- The Department of Fisheries (DOF) is currently reviewing the first NPOA-Fishing Capacity. Among the amendments proposed is the setting up of a steering committee to oversee the overall implementation of the NPOA. It will be further suggested that a technical committee be established by the steering committee to

recommend the method of determining and limiting the fishing capacity, such as using input controls (number of licenses) or output controls (catch quota).

- An exit plan for Zone B trawlers ($\leq 40\text{GRT}$) was implemented in the state of Kedah some years ago, with plans to continue its implementation in the future. However, the implementation is subject to the availability of funds for the buy-back scheme.
- Foreign fishermen working on Malaysian trawlers may tend to spend more time at sea compared to Malaysian fishers thus increasing the trawlers fishing effort. Currently, requests from Zone B trawler owners to employ foreign fishers have been rejected by the government.

2. Growth overfishing and trash fish

Trawlers tend to land a high proportion of trash fish, which includes juveniles of commercially important species. The table below shows the 2011 data for trash fish landings by all fishing methods and by trawlers, for comparison. The trash fish component of trawler landings are usually used in the fish meal industry, aquaculture and value added products such as surimi, thus creating a demand for this category of catch.

AREA	Trash fish landings (tonnes)			% trash in trawl landings
	Trawlers	All methods	% by trawlers	
West Coast Peninsular Malaysia	132,304	169,709	77.96	35.99
East Coast Peninsular Malaysia	58,777	60,599	96.99	38.54
Sabah, Sarawak & Labuan	23,899	31,362	76.20	16.88
Whole Malaysia	214,980	261,670	82.16	32.49

Mitigating measure:

The Fisheries Act 1985 specify that the stretched codend mesh size of trawl nets should not be less than 38mm. Although already in place for about 30 years, this regulation was not enforced, although this was attempted in 2006, resulting in mass protests by some trawl fishers in some areas. However there is a move to enforce it by November 2013.

3. Trawl net specifications

There was a lack of specifications governing the design of trawl nets, with the exception of the codend mesh size mentioned above. Some innovative trawl fishers have modified their nets by increasing the wing mesh size to greatly increase the vertical opening. This led to increased fishing effort (increase in the volume of water traversed by the net), as well as competition with other fishing methods, such as drift/gill netters, for pelagic and semi-pelagic resources.

Mitigating measure:

The DOF recently issued extra conditions to trawl licenses to address this issue. The mesh size of the trawl wing has been limited to a maximum of 5 meters and the length of the head rope has been limited to a maximum of 40 meters.

Note: These extra conditions are reactive to complaints by some traditional fishers. There need to be proactive actions to define the overall trawl net design, to counter possible further modifications to other parts of the trawl net that may lead to increasing the fishing effort which will be detrimental to sustainable fisheries.

4. IUU fishing

IUU fishing occurs when unlicensed trawlers engaged in fishing operations or when licensed trawlers encroach in waters prohibited to them. The lengthy Malaysian coastline makes fisheries enforcement activities a challenging task. The recently established Malaysia Maritime Enforcement Agency (MMEA) has been declared as the sole maritime enforcement agency in Malaysia, thus taking over the role of the DOF in enforcing fisheries related regulations at sea. They are also tasked with other equally, if not more important, duties such as combating piracy, smuggling, illegal immigrants, etc. Thus, MMEA may not be able to focus primarily on fisheries issues.

Mitigating measure:

The DOF is considering to request that it be allowed to carry out some maritime fisheries enforcement activities, especially in the inshore waters where encroachment by trawlers into Zone A have occurred.

The “unreported” aspect of IUU fishing may not be as big an issue as the “illegal” and “unregulated” aspects, since catch and effort data are sampled by the DOF, irrespective of whether the fishing vessel is licensed or otherwise.

5. Workforce in the trawl fishery

Currently there is a lack of interest in the younger generation of Malaysians to be involved in capture fisheries, including in the trawler fisheries. This has led to an aging local workforce in these fisheries. There is a large foreign workforce employed legally in the larger trawlers, i.e. in Zone C and Zone C2 (trawlers \geq 40 GRT). Although having foreign fishermen will compensate for the lack of Malaysian workers, this may have an impact on the fishing effort. Foreign fishermen, by virtue that they are away from their home and families, may tend to work for longer periods at sea compared to their local counterparts. This in turn will lead to an increase in fishing effort, since there is no regulation governing the length of time spent at sea for fishing vessels.

Mitigating measures

- Working conditions on trawlers need to be improved to attract a younger workforce. There have been moves by the DOF to review and improve the design of trawlers to make them more comfortable and conducive as a workplace.
- Making the trawl fisheries sustainable and thus reducing the uncertainty of fish availability as a source of income will provide an attraction to younger Malaysians to engage in the trawl fisheries.

6. Fuel subsidy

Trawlers, and operators of other fishing gears, are provided with subsidised fuel. The monthly quota for each fishing vessel is based on the fishing method and vessel size class. Although this subsidy is meant to help improve the socio-economic well-being of fishers, it also tends to keep inefficient fishing vessels and fishers in the industry, thus competing with more efficient operators for a limited and finite resource.

7. Licensing of trawlers

Currently there is only one type of license issued to trawlers. These trawlers may, however, operate 3 different type of trawl nets targeting different commodities, namely fish, prawns and sergestids. There are some differences in the operating methods and areas for these resources. For example, prawn resources are found closer to shore (Zone A and Zone B) and trawlers targeting them use tickler chains attached to the foot-rope instead of rollers or bobbins. Sergestid trawlers need to use smaller codend mesh size than that stated in the Fisheries Act 1985. Having one type of license and related regulations governing these trawlers may not provide a suitable platform for efficient management.

Mitigating measure:

There is a need to review the existing regulations with the possibility of separating the 3 types of trawlers and licensing them accordingly. Such a move will require intensive and extensive consultations with the stakeholders.

8. Fisheries Management Plan

Currently, there is no management plan for the trawl fisheries. The absence of this plan will hinder the efficient management of these fisheries.

Mitigating measure:

The relevant management plan will need to be formulated. In line with the EAFM concept, various stakeholders will need to be involved in the preparation, formulation and subsequent acceptance of this plan.

9. **Leasing of trawler license**

Leasing of trawler licenses to other parties have occurred. This is against the stated policy of the DOF.

Mitigating measure:

The DOF have carried an audit on trawlers and those found to be involved in activities contravening the regulations have had their licenses revoked.

10. **EU regulations on food safety**

EU regulations on food safety had prevented trawlers that do not comply with these regulations from exporting their product to EU countries.

Mitigating measure:

Trawler owners and operators are being encouraged to comply with these regulations. A number of trawlers have already complied with the Hygiene-on-board (HOB) requirements, although the number is still relatively small.

11. **Funding for management**

There is a lack of fundings available for MCS activities, including the management of the trawl fisheries. Proper and efficient management that will lead to sustainable fisheries require sufficient funds to relevant activities to be carried out.

Mitigating measure:

Requests for funding will be carried out. However, central fund managers may not see the need for such activities vis-a-vis other sectors or industries. There is a need for fisheries managers to impress upon the central fund managers on the importance of the capture fisheries, and the need for these fisheries to be managed efficiently. Fisheries managers will need to engage more with the fund managers and increase awareness building among the general public regarding fisheries management and fisheries sustainability.