

Importance of Fishery Certification - Blue Swimmer Crab (BSC) in Palk Bay Towards the Process

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Introduction

MSC certification confirms whether the fishery is well-managed and is sustaining resources and livelihoods for future generations. Being MSC certified means meeting the world's most recognised benchmark for sustainability: the MSC Fisheries Standard. The MSC Fisheries Standard is based on the United Nations Food and Agriculture Organisation's (FAO) code of conduct for responsible fisheries. The Standard is developed in consultation with a range of people and organisations around the world, including government academics, researchers, the fishing industry and NGOs.

MSC certification may provide

- enhanced reputation
- better visibility
- improved dialogue with stakeholders
- a pathway for improvements
- protected livelihoods
- access to new markets
- secure markets
- promotional opportunities

What is MSC?

The **Marine Stewardship Council (MSC)** is an independent non-profit organization which sets a standard for sustainable fishing. Fisheries that wish to demonstrate they are well-managed and sustainable compared to the science-based MSC standard are assessed by a team of experts who are independent of both the fishery and the MSC. Seafood products can display the blue MSC ecolabel only if that seafood can be traced back through the supply chain to a fishery that has been certified against the MSC standard.

The mission of the MSC is to use its ecolabel, for which the MSC receives royalties for licensing it to products, and fishery certification program to contribute to the health of the world's oceans by recognizing and rewarding sustainable fishing practices, influencing the choices people make when buying seafood, and working with partners to transform the seafood market to a sustainable basis.

When buyers choose MSC-certified fish, well-managed fisheries are rewarded for sustainable practices. In turn, the growing market for certified sustainable seafood generates a powerful incentive for other fisheries to demonstrate they are fishing sustainably or to improve their performance so that they too can be eligible for MSC certification. In this way, the MSC program helps to harness market forces to incentivise positive environmental change.

The MSC Fisheries Standard

The MSC Fisheries Standard is used to assess if a fishery is well-managed and sustainable. The Standard reflects the most up-to-date understanding of internationally accepted fisheries science and management. We review and develop the MSC Fisheries Standard in consultation with scientists, the fishing industry and conservation groups.

How is it used?

When a fishery is successfully certified to the Fisheries Standard, its certified catch can be sold with the blue MSC label. Certification to the MSC Fisheries Standard is voluntary. It's open to all fisheries who catch marine or freshwater organisms in the wild. This includes most types of fish and shellfish. Fisheries are assessed by accredited independent certifiers called Conformity Assessment Bodies (CABs) – also called certification bodies.

What is assessed?

The MSC Fisheries Standard has three core principles that every fishery must meet.

1. Sustainable fish stocks

Are enough fish left in the ocean? Fishing must be at a level that ensures it can continue indefinitely and the fish population can remain productive and healthy.

2. Minimising environmental impact

What are the impacts? Fishing activity must be managed carefully so that other species and habitats within the ecosystem remain healthy.

3. Effective fisheries management

Are operations well managed? MSC certified fisheries must comply with relevant laws and be able to adapt to changing environmental circumstances.

Fisheries Certification Process

The Fisheries Certification Process (FCP) accompanies the Fisheries Standard. It sets out how the MSC Fisheries Standard should be interpreted by certifiers during assessments.

These requirements make sure that the Standard is applied equally to fisheries around the world, regardless of species, fishing method, environment or size. They also give certification bodies the guidance and support they need to assess a fishery against the Fisheries Standard.

(For step by Step details refer MSC Guide – “Get Certified”-23p.)

Indian Scenario

The community-based Ashtamudi short-neck clam fishery (*Paphia malabarica*) is the first MSC certified fishery in India and it is only the third fishery in Asia to have received this recognition. This mile stone been achieved through the efforts made by WWF-India, the Central Marine Fisheries Research Institute (CMFRI) and the Kerala State Fisheries Department, working hand-in-hand with the local fishing community. Short-neck clam fishery contributes to the 90% of the total clam export from India and Ashtamudi Clam Governing Council is the first in India for managing a living resource (Source: www.wwfindia.org).

Blue Swimming Crab (BSC)

Currently few more Indian species are in the process of certification and during 2017, MSC has identified few Indian species, and the Blue Swimming Crab, *Portunus pelagicus* is in the Priority-I list. Further, Indian Crab Meat Processors Association (CMPA) has resumed their work in this line, which has initiated in later period of 2013 with the following objectives.

- To carry-out a MSC Fishery Improvement Project (FIP) for the Gill net Blue Swimmer Crab fishery.
- To Conduct a fishery assessment, organize stakeholders, and formalize a multi-faceted Work Plan that seeks to improve industry sustainability.
- To apply fishery management systems that ensure that blue swimmer crab populations remain productive, and those that rely on the resource remain economically viable now and in the future.



Figure 1. Blue Swimmer Crab – fresh landings from trawls at Mandapam (Palk Bay)

National Fisheries Institute (NFI) Crab Council was formed in 2009 and is comprised of 17 member companies representing more than 85% of the blue swimming crab imported into the U.S. The sole purpose of the Council is to encourage and support efforts to improve blue swimming crab fisheries. The council is funding CMPA to carry-out a Fishery Improvement Project (FIP) following the guidelines in association with all the stakeholders of the fishery which ultimately ensure that blue swimmer crab populations remain productive and remain economically viable to the beneficiaries for a long term. Apart from the fishers and Processors, other important stakeholders are CMFRI (Research Partner providing inputs for the management strategies), WWF (as FIP Co-ordinator - for planning and coordinating the various activities of the all the stakeholders), State Fisheries department officials for the implementation and monitoring the management plans.

BSC fishery is now completed Pre- assessment (PA), the first step towards certification, which is an optional preliminary review to inform whether your fishery is ready to enter full assessment. During a pre-assessment, the assessor will identify the strengths and weaknesses of the fishery in relation to the MSC's 28 performance indicators and allocate an approximate score for each PI. Their results will be used to determine the likelihood of your fishery meeting the MSC Fisheries Standard. The pre-assessments are carried out by an accredited independent certification body. At the end of the pre-assessment, the certification body will present you with a pre-assessment report which identifies any obstacles that need to be addressed before your fishery enters full assessment. The pre-assessment report remains confidential between the party and the certification body and the concerned team can take own decision whether to proceed to full assessment.

The pre-assessment will consist of:

- A meeting between the fishery client and the certification body
- A site visit (this is optional during the pre-assessment stage)
- A review of available data
- Identification of any stakeholder issues or interests
- A pre-assessment report outlining the extent to which your fishery meets the MSC Standard
- A description of potential obstacles that will need to be addressed before your fishery meets
- the requirements of the MSC Standard

Fishery Improvement Projects (FIPs)

An increasing number of fisheries are making the necessary changes to become sustainable with the hope of achieving certification. This has led to considerable growth in organised efforts to improve fisheries, often called 'Fishery Improvement Projects' (FIPs). If the results of the pre-assessment indicate that your fishery is not meeting the MSC Standard, tools and technical assistance are available to help your fishery make the improvements required to meet the standard. Once the areas needing improvement have been identified in your pre-assessment report, the next stage is

to develop an action plan for improvement. We have developed an Action Plan for Improvement Template which can be used to lay out and report what needs to be done, by who and when. Successful FIPs rely on the support of stakeholders, including retailers, governments, NGOs and funders. The MSC Benchmarking and Tracking Tool (BMT) can be used to track the progress being made by fisheries as they improve towards sustainability, and help stakeholders understand the status of the FIPs that they are engaging with.

Fishery – Background

The demand for *Portunus pelagicus*, commonly known as Blue Swimming Crab (BSC) is consistently increasing and the State of Tamil Nadu is leading in marine crab landings particularly for the blue swimming crab production in India (Fig.2). The major landing centres for BSC are located in the Palk Bay (PB) and Gulf of Mannar (GoM) areas of Ramanathapuram, Pudukkottai and Thanjavur districts of the state. BSC products form the most important internationally traded commodity from the region and contribute significantly to the livelihood of crab merchants and crab fishers of the area (Josileen et.al., 2018 unpublished).

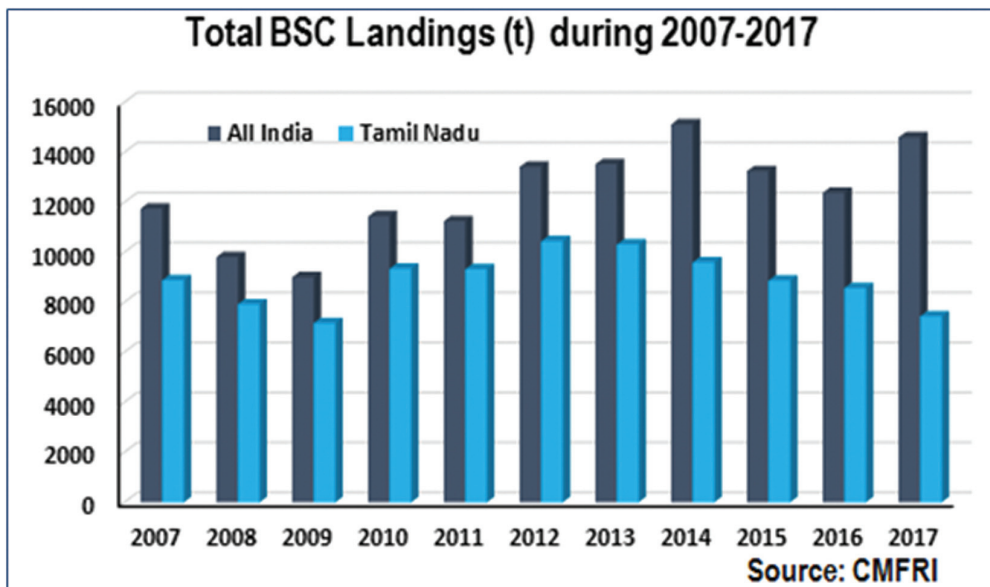


Fig. 2. Total BSC landings during 2007-2017

The overall trend of the BSC clearly shows a declining trend and it is the right time to make necessary steps to control and manage the fishing towards a sustainable fishery for the future use. Here we make an attempt to certify the fishery which is a long term process and through which all the stakeholders of the fishery would be cautious and work hand-in-hand to bring the fishery to the status of a well-managed fishery.



Fig. 3. View of a gill net landing centre at Palk Bay, Tamil Nadu

For the management of the fishery needs a thorough knowledge about the following aspects:

- Fishery and Fishing practices-Craft & gear
- Total Landings –gear wise & centre wise (10 or more years data)
- Ecology of the fishing area
- By-catch
- Market & Price structure (Value chain)
- BSC Biology & life history
 - Life Cycle the
 - Size Composition and Sex Ratio
 - Size at maturity
 - Breeding and composition of berried crabs
 - Fecundity
 - Carapace Width-Total Weight Relationship
 - Morphometric relationship
 - Food & feeding

- Growth & growth parameters
- Maximum Sustainable Yield (MSY) - Palk Bay BSC
- Harvest strategy

Based on these information, we have to identify the strengths and weakness of the fishery and appropriate management plan should be prepared and implemented to achieve the long term goals as a well-managed fishery. In the management plan, roles of each stakeholder should be clearly envisaged and strict adherence to the rules and regulations must be ensured. A well-managed fishery not only focus on the sustenance of the fishery but perform in a wider perspective, to the triple bottom line approach- environmental, economic and social sustainability.

The strengths of the BSC fishery are as follows: regular monitoring of fishery, ecological and geographical parameters of fishing area i.e., Palk Bay, total landing of the BSC and other resources, complete life history with detailed biological parameters of the BSC from the area etc. available with published information. BSC is a fast growing species reaching 100g size within 6 months' time with a short life span of 2.5 to 3 years and mass seed production and farming of the species are proven.

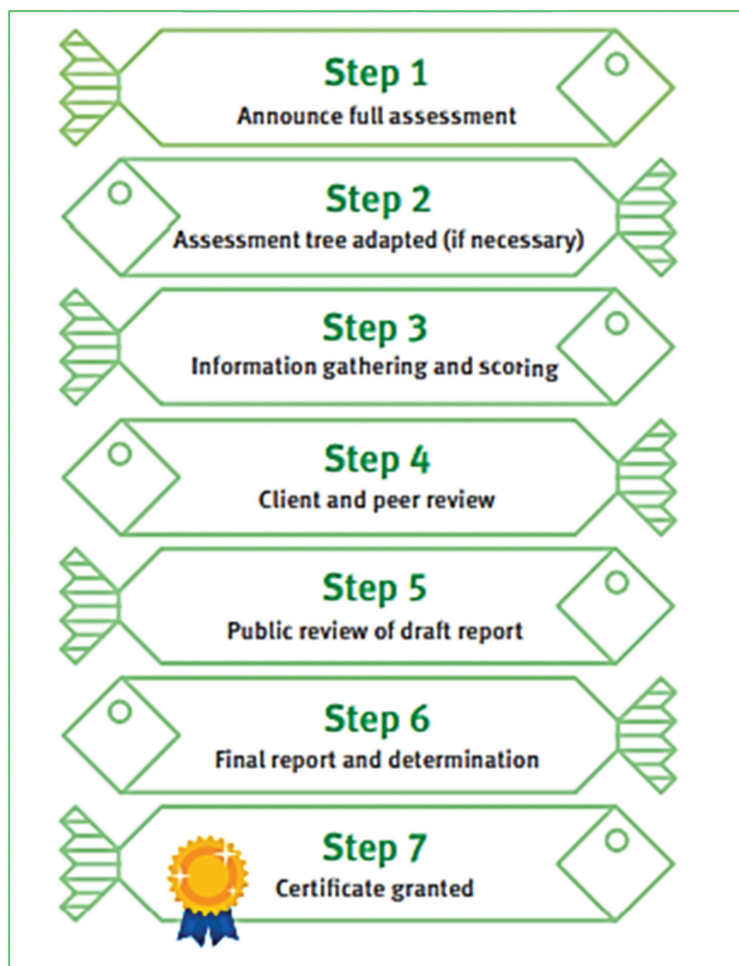
For certification purpose it is very important to select the gear and the area of fishery; for Blue Swimming Crab certification, "gill net fishery of Palk Bay" been identified. Crab gill net locally known as 'nanduvalai' is a non-destructive gear and no ETP species are caught in Nanduvalai. In Crab gill net, only Crabs are targeted; BSC is the major species caught however, minor quantities of other crabs, prawns, fishes and gastropods are also form a part of the catch. The stake holder consultations conducted in this regard gave encouraging approach by fishers and processors, which is a welcoming act. Majority of the fishers and Crab Meat Processors Association (CMPA) are ready to accept and comply the proposed management plan. The most crucial immediate steps to be implemented for promoting the fishery to the sustainable level are:

- The Minimum Legal Size (MLS) is also soon implemented through TNMFRA i.e., it will permit to land and sell/purchase crabs of size (carapace width CW) 90 mm CW and above.
- Total Ban on landing of berried females- berried crabs must be put back to the sea as early as possible.
- No trade of berried crabs - Crab processors/merchants should not buy berried crabs/ undersized crabs.

Full Assessment

Full assessment is the detailed, public, rigorous process that the certification body will follow to determine whether or not your fishery meets the MSC Fisheries Standard. The process starts when you, the fishery client, sign a contract with your certification body and they notify the MSC that your fishery is entering full assessment. The average time taken for a full assessment is 12 months and the minimum is 8 months. The length depends to some extent on your preparation as well as the nature and complexity of your fishery.

Overview of the full assessment process



Once the fishery become certified against the MSC Chain of Custody Standard, products from your MSC certified fishery can bear the MSC ecolabel on packs or menus. The blue fish label is only applied to wild fish or seafood from fisheries certified to the MSC standard, a scientific measure of sustainable fishing.



Impact

For over 20 years fisheries, scientists, consumers and industry have been part of a collective effort to make sure our oceans are fished sustainably. Since its foundation in 1997, fisheries responsible for 12% of marine catch have been certified to the MSC Fisheries Standard. Certification is helping to grow and maintain the number of sustainable fish populations. To remain certified, fisheries have so far made over 1,200 improvements to their performance and management. More than 38,000 sites, including supermarket chains, restaurants, fishmongers and hotels are now certified to sell seafood with the blue MSC label. Now, more than 25000 products are sold with the blue MSC label in the market.

A virtuous circle

When you buy a product with our blue fish label, you become part of a virtuous circle, helping to protect the productivity and health of our oceans.

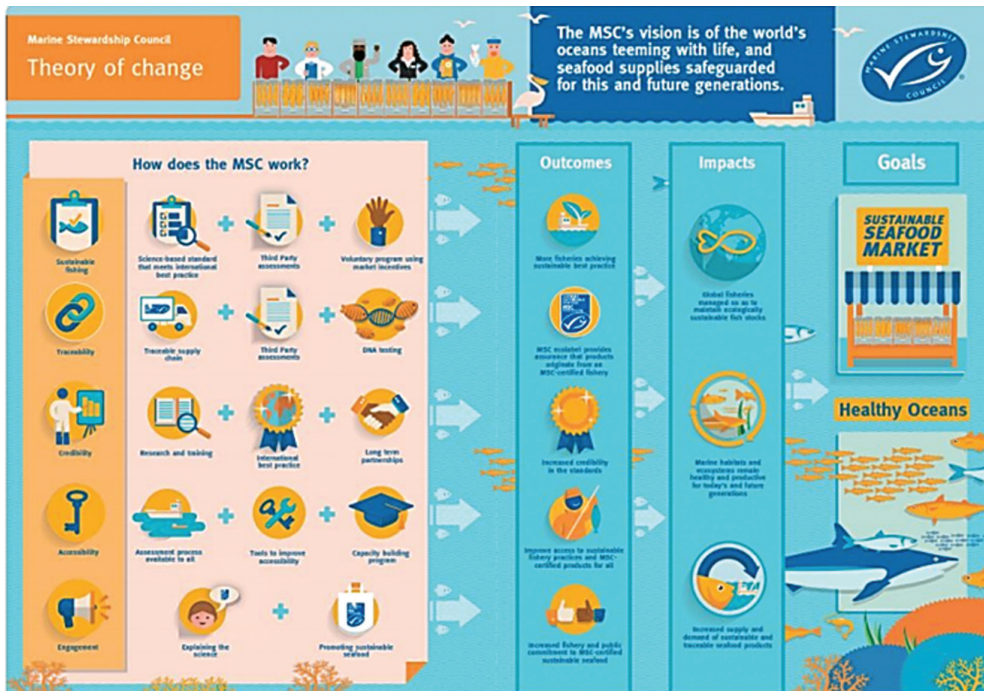
Here's how it works:

1. **Fisheries** -that meet the MSC Standard are independently certified as sustainable
2. **Retailers and restaurants**- choose MSC certified sustainable seafood
3. **A traceable supply chain**- assures consumers that only seafood from an MSC certified fishery is sold with the blue MSC label
4. **Consumers**- preferentially purchase seafood with the blue MSC label



5. **Market demand-** for MSC certified seafood increases
6. **More fisheries-** choose to improve their practices and volunteer to be assessed to the MSC Standard

MSC's theory of change describes how the program will contribute to the MSC achieving oceans teeming with life, and seafood supplies safeguarded for future.



For Further reading- visit: <https://www.msc.org>