

## MarinTrust Improver Programme: Milestone Report Template

In this document the applicant should outline the milestones that make up the Fishery Action Plan (FAP) as part of the Fishery Improvement Project (FIP). Then during each review, update the relevant year to indicate whether the milestones have been met or not. This will be verified by the peer reviewers (accredited certification body) based on evidence submitted by the applicant.

<b>Fishery Under Verification</b>	Indian oil sardine( <i>Sardinella longiceps</i> ) and Indian Mackerel ( <i>Rastrelliger kanagurta</i> )
<b>Milestone</b>	Ist yearly check
<b>Date</b>	01/10/2020
<b>Verifier</b>	

Improver Programme Details and Summary of the Milestone Verification Outcome				
<b>Name:</b>	Omega Fishmeal & Oil Private Limited			
<b>Address</b>	Plot No.G/3, M.I.D.C., Mirjole, Ratnagiri			
<b>City/state</b>	Maharashtra			
<b>Province/country</b>	<b><u>INDIA</u></b>			
<b>Postal code</b>	415639	<b>Phone</b>	2352229072	<b>Fax</b>
<b>E-mail</b>	omegafishmeal@gmail.com			
<b>Key contact</b>	Mr. Amol Patil			
Verification Body Details				
<b>Name of Verification Body:</b>				
<b>Assessment Period:</b>				

Scope Details	
Management authority (Country/State)	Government of India; States of Maharashtra & Goa
Main species	Indian oil sardine( <i>Sardinella longiceps</i> ) and Indian Mackerel ( <i>Rastrelliger kanagurta</i> )
Date of acceptance into MarinTrust IP	October 2019
Original projected IP completion date	
Fishery location	Waters off the States of Goa and Maharashtra, SW India and adjacent Nationally managed waters.
Gear type(s)	Purse seine
Outcome of Assessment	
Sections with Milestones	
Milestones not completed to the Fishery Action Plan	
Sections with Critical Milestones	
Critical Milestones not verified	
Recommendation	
Critical Milestones carried over	

**TABLE 1 – MARINTRUST FISHERY ASSESSMENT PROGRESS SUMMARY**

The table below summarises the initial status of the fishery, the projected Improver Timeline, and the actual changes which have taken place as verified by previous Milestone Reports.

MarinTrust Fishery Assessment Section		Initial score	Immediate (6 months)	End of Year 1	End of Year 2	End of Year 3	End of Year 4	End of Year 5
Date								
M1	Projected							
	Actual							
M2	Projected							
	Actual							
A1	Projected							
	Actual							
A2	Projected		By catch management – suggestion that there needs to be specific by catch management arrangements in place.					
	Actual	Completed	Workshop undertaken as per draft FAP. Minutes and copies of presentations along with the outcomes of the follow up meeting held the day after with the College of Fisheries already submitted. Uses of boat based					

			<p>observers were discussed at both the workshop and the meeting. These have been used for research projects in the past including the 2016-2018 PhD thesis that evaluated by catch and discards in the Ratnagiri area.</p>					
A3	Projected							
	Actual							
A4	Projected							
	Actual							
B1	Projected							
	Actual							
C1	Projected							
	Actual							
D1	Projected							
	Actual							
F1	Projected		Involvement of CIFT					
	Actual	Completed	<p>CIFT – were committed to attending the workshop, but were delayed by monsoon floods in Mumbai and did not make it. Email trail</p>					

			<p>available to confirm if required</p> <p>A copy of the workshop outcomes has been supplied and follow up discussions held</p>					
F2	Projected		Involvement of CMFRI					
	Actual	Completed	<p>CMFRI - were committed to attending the workshop but were delayed by monsoon floods in Mumbai and did not make it. Email trail available to confirm if required.</p> <p>A copy of the workshop outcomes has been supplied and follows up discussions held. CFMRI kindly supplied a copy of their newly released comprehensive report entitled 'The Enigmatic Sardine' which contains a</p>					

			wealth of useful information.					
F3	Projected							
	Actual							

## Table 1 Rating key

Each section of the MarinTrust Fishery Assessment is assigned a Projected and Actual rating for each milestone date, according to the table below. Projected ratings are assigned when the FIP is accepted into the IP. Actual ratings are assigned as a result of the validation assessment conducted at each milestone date. In a FIP which is progressing according to the FAP timeline, the Projected and Actual ratings will be the same.

Colour	MarinTrust Rating
	Fully Compliant with all MarinTrust Raw Material Approval Criteria within this section. For sections in categories A-D this indicates that all criteria within that section are met for all applicable species.
	Compliant with some MarinTrust Raw Material Approval Criteria within this section. For sections in categories A-D this indicates that some criteria are not met by some applicable species.
	Non-Compliant with any MarinTrust Raw Material Approval Criteria within this section. For sections in categories A-D this indicates that no criteria are met by any applicable species.
	Critical Milestone Raised against one or more criteria within this section.

## Critical Improvements

Section	Milestone date	Critical Milestone Due

## Table 1 Summary

*[Summarise outcomes of table, i.e. is the FIP on track?]*

**TABLE 2 – FAP PROGRESS SUMMARY**

The table below summarises the progress the fishery has made in implementing the improvement actions detailed in the FAP. An ‘X’ indicates that the Improvement Action is scheduled to be completed by that milestone date, according to the FAP at the time of acceptance into the IP.

Improvement Action	6 months	End of Year 1	End of Year 2	End of Year 3	End of Year 4	End of Year 5
<p><b>1. Data collection program based on results of workshop</b></p> <p>As previously reported a workshop was held in Ratnagiri on 03/7/2019 in association with College of Fisheries Ratnagiri to discuss improved data collection for the fisheries with a focus on gaining a better understanding of aspects such as catch composition, any interactions with protected species and any seabed interactions. It was determined that an observer program was the best way to deliver on this and a follow up meeting was held with the College of Fisheries on 04/7/2019 to discuss sampling frequency, costs, logistics and sampling strategy.</p> <p>The 2019-2020 fishing season has proven to be extremely poor. For the months of October 2019 to March 2020 there were virtually no catches of oil sardines at all and the proposed observer program was postponed. The season is coming to a close by May end and, whilst official landings statistics are not yet available anecdotal reports from the main landing site in Ratnagiri and Goa suggest that sardine catches have declined considerably .</p> <p>The reasons for this decline are currently unknown but could include overfishing, natural environmental variation (via the Indian Ocean Dipole – the el Nino equivalent that operates in the Indian Ocean), climate change,</p>	<p>Completed prior to FAP approval but included in draft FAP</p>	<p>Research Project on Stock Assessment of Indian oil sardine and Indian mackerel commenced and progressing well. Memorandum of Understanding (MoU) with Diploma in Fisheries Engineering, Konkan Krishi</p>				

<p>or other factors. The main area of stock abundance and fishery production is to the south of the FIP area where there are considerable efforts underway to control catches of sardines</p> <p>(REFERENCE – The enigmatic Indian oil sardine By CMFRI : Attachment 1)</p> <p>Mackerel catches have been better. Previous studies have found that whilst sardines exhibit long term fluctuations in landings, mackerel landings are far more seasonal.</p> <p>(REFERENCE: Observed Variability in oil sardine and mackerel fishery of South West Coast of India – Statistical Approach ,A study Report by Cochin University of Science and Technology : Attachment 2)</p> <div data-bbox="203 863 707 1201" data-label="Image"> </div> <p>It should be noted that the fishing season saw large numbers of black triggerfish (<i>Melichthys indicus</i>)</p> <p>Whether this is a natural ‘outbreak’ or a symptom of some other change is unknown. At present there is some modelling being undertaken of the</p>		<p>Vidhyapeedh Ratnagiri was signed on 17<sup>th</sup> August 2020. The study is expected to be completed in August 2022.</p> <p>. Scanned copy of MoU is attached. (Attachment A)</p> <p>Data collection has been undertaken on a weekly basis. Please see attached note from Dr. M M Shirdhankar, Principal Investigator of the Project. (Attachment A1)</p>				
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<p>marine ecosystem in South West India which may shed some light on this as there is growing concern about excess fishing pressure (not sardine related), especially in the demersal trawl sector.</p> <p>A full tally of landings should be available some time later this year.</p> <p>Now the 2019 fish landing figures are available. According to CMFRI, though India's marine production registered a marginal increase of 2.1% (3.56 Million Tonnes) in 2019 compared to the previous year, Maharashtra and Goa recorded 32% and 44% fall respectively in fish landings. The red toothed trigger fish (<i>Odonus niger</i>) landing raised to 2,74,000 metric tonnes registered a huge increase in landings compared to its previous year landing of 72000 metric Tonnes. Maharashtra witnessed its lowest annual fish catch in 45yrs in 2019 at 0.201 million tonnes. The environmental factors such as extended heavy rain beyond monsoon, six tropical cyclones such as Fani in April, Vayu in June, Hika in September, Kyaar in October, Maha in October and Bulbul in November 2019 in the Arabian sea are the main reason for the significant drop in fishing hours and 36% drop in number of fishing days in 2019.</p> <p>Total estimated landings in Goa are 33000 Metric tonnes and Indian mackerel remained as the top most resources as in 2018 with slight drop in landings.</p> <p>The condition of the marine fisheries sector during this year also somewhat similar to the conditions prevailing last year. The lockdown imposed due to the outbreak of Covid 19 pandemic has created huge loss to the fishing industry. According to CMFRI, the first 40 days lockdown in the country created a country wise estimated loss of Rs.116520 Millions in fisheries sector. This is excluding the post harvest and export catch loss</p>		<p>Fish sampled for length and biological parameters. See attached 23 photos. (A2)</p>				
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<p>estimated separately in the sea food export sector. Even now nearly 40% fishing vessels are not venturing to sea due to the non availability of crew on account of Covid 19.</p> <p>(Sources: Marine Fish Landings in India 2019 by CMFRI, The Hindu dated 1st July 2020, Hindustan Times dated 1<sup>st</sup> July 2020 &amp; The Times of India dated 1<sup>st</sup> July 2020)</p> <p>(Attachments B,C,D &amp; E)</p>						
<p>2. MCS arrangements in Maharashtra</p> <p>Govt. of Maharashtra has a sound and effective Monitoring Control and Surveillance system with necessary legal backing. All fishing vessels will abide by the MCS requirements and have suitable Vessel Tracking System (VTS). The coastal districts of Maharashtra have one patrolling vessel each to undertake the monitoring activities in order to prevent deter and eliminate the IUU fishing. The vessels involved in IUU fishing activities are caught and fined as per the provisions in the Marine Fisheries Regulation Act of the State. (MFR Act copy –attachment 3)</p> <p>Update on the MCS activities in the state will be obtained once we have discussion with the Fisheries Department officials. We have been in contact with them for follow up. We attach emails documenting these efforts.( Attachment 4)</p> <p>We would like to reschedule this action item until after the COVID 19 lockdown is lifted and more urgent activities for officials are out of the</p>	<p>See attachments for progress to date. Will require carryover into post COVID19 period when lock down is lifted</p>	<p>Update from the Fisheries Department is awaited. Please see the copy of email dt.25th September 2020 addressed to the Asst. Commissioner of Fisheries, Ratnagiri. Lockdown in the country due to COVID 19 is still in force.</p>				

way.						
<p>3.Liaise with government officials over the need for proper resourcing for MCS in Goa</p> <p>We have been in contact with the officials in the Goa Department of Fisheries to follow this up. We attach emails documenting these efforts. At present the COVID19 lockdown is hindering progress on this Action item as officials prefer to meet in person.</p> <p>We would like to reschedule this action item until after the lockdown is lifted and more urgent activities for officials are out of the way.</p>	<p>See attachments for progress to date. Will require carryover into post COVID19 period when lock down is lifted</p>	<p>We are in regular contact with the officers at the department of fisheries Goa over phone. Direct liaison is possible only after the lifting of lockdown.</p>				
<p>4. Provide evidence of enforcement in both Goa and Maharashtra</p> <p>We have been in contact with the officials in the Goa Department of Fisheries to follow this up. We attach emails documenting these efforts. (Attachment4)We are aware of the existence of a high speed patrol vessel available for the waters of Goa and Maharashtra and there is also provision for the issuance of fines.</p> <p>For Goa, there is also provision for the issuing of fines for contravening</p>	<p>See attachments for progress to date. Will require carryover into post COVID19 period when lock down is</p>	<p>Documentary evidence from both the Fisheries Departments is awaited. Please see the copy of email dt.25<sup>th</sup> September2020 addressed</p>				

<p>fishing regulations . MFR Act of Goa is attached.(Attachment 5)</p> <p>At present the COVID19 lockdown is hindering further progress on this Action item as officials prefer to meet in person.</p> <p>We would like to reschedule this action item until after the lockdown is lifted and more urgent activities for officials are out of the way.</p>	<p>lifted</p>	<p>to the Director of Fisheries Goa, and Asst.Commissioner of Fisheries, Ratnagiri. Lockdown in the country due to COVID 19 is still in force (Attachment F&amp;G)</p>				
<p>5. Detailed review of literature including any local projects We have reached out to some research providers to gather information that may be relevant to the purse seine fishery.</p> <ul style="list-style-type: none"> <li>• According to the Ratnagiri College of Fisheries there are a number of student projects and post graduate degree theses that may be relevant but we would need to search the library in person. We are welcome to do this once the lockdown is lifted.</li> <li>• We were made aware (see attachment 6 : copy of email from Dr.Leela Edwin, Principal Scientist, Central Institute of Fisheries Technology(CIFT), Kochi) of a current PhD being undertaken that is relevant. Again, once the lockdown is lifted we are welcome to discuss the project with the student involved.</li> </ul>	<p>See attachments for progress to date. Will require carryover into post COVID19 period when lockdown is lifted</p>	<p>Access to the libraries of College of Fisheries, Ratnagiri and CIFT Kochi is controlled due to Covid pandemic. Once the situation improves, we will make it up.</p>				

<p>At present the COVID19 lockdown is hindering further progress on this Action item although we have made some headway.</p> <p>We would like to reschedule this action item until after the lockdown is lifted and we are able to search as requested.</p>					
<p>6. Resolve catching method for mackerel</p> <p>We have searched for information about the catching of mackerel. There is no law prohibiting a purse seine vessel from having both a sardine net and a mackerel net onboard. For the case of Maharashtra the regulations state that a sardine net should not have a mesh size of less than 25mm and for mackerel the mesh size should not be less than 49mm. Thus it would appear that fishing for the two species groups is conducted in separate operations (see Attachment 7 – Maharashtra Govt. order dt. 5<sup>th</sup>February,2016, page 2).</p> <p>We have obtained one scientific publication documenting the composition of catches in purse seines along the coast near Ratnagiri (Kamble et al 2017, see Attachment 8). The mesh size of the purse seines was not recorded. The catch of sardine species (oil and lesser) was about 43% and the catch of mackerels (Indian and horse) was about 24%. As is common in tropical fisheries, and as evidenced by the other literature cited as well, species composition is highly variable across time (months and years, and space).</p> <p>Further information on how fishing is conducted will be collected when the</p>	<p>See attachments for progress to date. Will require carryover into post COVID19 period when lock down is lifted</p>	<p>During the Stock Assessment study, catch composition of purse seine catches will be recorded by the onboard observer. Apart from that he will be asked to give a detailed report on mackerel catching which will help resolve the issue.</p>			

<p>observer program is underway. It should be possible to learn how fishermen fish separately for sardines versus mackerel and to see how the catch composition of the two different mesh types may differ.</p>						


### Table 2 Summary

*[Summarise Table 2, i.e. have all the scheduled improvement actions been implemented on time?]*

## Table 2 Rating key

Each major action in the FAP is assigned a progress rating for each milestone date, according to the table below. In a FIP which is progressing according to the FAP timeline, all progress ratings will be green.

Colour	FAP Progress Rating
Green	This action has been completed as planned, or earlier than planned.
Light Green	This action is not scheduled to have been completed by this milestone date, and there is no evidence that progress towards completing it has fallen behind schedule.
Red	This action is scheduled to have been completed by this milestone date, but has not yet been completed.
Blue	This action was scheduled to be completed by a previous milestone date and is still not completed. This represents a failure to complete a Critical Milestone.



## ADDITIONAL INFORMATION

The following section highlights any information provided by the fishery in support of this Milestone Report which does not relate directly to any of the Milestones above, but which is relevant to the ongoing monitoring of fishery management status.