

DRAFT Indian Sardine Fishery Improvement Project Action Plan

March 2018

Background

Omega Fishmeal and CP India have progressed the implementation of a Fishery Improvement Project (FIP) as part of their commitment to ensuring responsible and sustainable fisheries in India. The companies have chosen to use the Responsible Sourcing Standard of the International Fishmeal and Fishoil Organisation (IFFO RS) as the goal for guiding management improvements in the fishery as this aligns with the FAO Code of Conduction for Responsible Fisheries, which has also been adopted by the government of India.

This Action Plan is a key part of the process established by IFFO RS to ensure that all stakeholders are committed to making measurable progress towards a fishery approval under the IFFO RS program. When finalised it will be a publicly available document that forms the basis for regular reporting by the companies and will be subject to scrutiny by interested parties from around the world. The companies have set up a website to provide background information and Action Plan updates which can be accessed at: <http://indiasardinefip.co.in/index.php>

Endorsement of the FIP by the IFFO RS Approvals Committee is a necessary step to enabling access to certain supply chains that require verifiable evidence that a credible FIP is in place that will deliver a fishery that can produce responsibly sourced fish meal and oil. Ongoing achievement of the actions is required for the Approval and supply access to be maintained.

This Action Plan sets out:

- the actions required to address the gaps between the current performance of the fishery
- the timetable for achieving the aims of the actions
- responsibilities for implementation
- budgets required – to be added
- reporting activities – to be added

Units covered

The India sardine FIP covers the catching of Indian oil sardine and the lesser (fimbriated) sardine in the waters of Goa and Maharashtra States and adjacent nationally managed waters.

Outcome of the fishery assessment

The fishery evaluation was conducted by an independent consulting company, RS Standards, which is approved by IFFO RS to evaluate fisheries against the Responsible Sourcing Standard. The IFFO RS Standard is based on a pass/gap fishery assessment system and criteria which have been judged to pass require no further work in this Action Plan.

Table 1 summarises the outcomes of the fishery assessment and is used as the basis for the draft Action Plan (Table 2).

Table 1 – output from the fishery assessment conducted by RS Standards.

M1	Management Framework –Minimum Requirements		
	M1.1	There is an organisation responsible for managing the fishery.	Pass
	M1.2	There is an organisation responsible for collecting data and assessing the fishery.	Pass
	M1.3	Fishery management organisations are publically committed to sustainability.	Pass
	M1.4	Fishery management organisations are legally empowered to take management actions.	Pass
	M1.5	There is a consultation process through which fishery stakeholders are engaged in decision-making.	Pass
	M1.6	The decision-making process is transparent, with processes and results publically available.	Pass
M2	Surveillance, Control and Enforcement - Minimum Requirements		
	M2.1	There is an organisation responsible for monitoring compliance with fishery laws and regulations.	Gap
	M2.2	There is a framework of sanctions which are applied when laws and regulations are discovered to have been broken.	Yes
	M2.3	There is no substantial evidence of widespread non-compliance in the fishery, and no substantial evidence of IUU fishing.	Gap
	M2.4	Compliance with laws and regulations is actively monitored, through a regime which may include at-sea and portside inspections, observer programmes, and VMS.	Gap

F1	Impacts on ETP Species - Minimum Requirements		
	F1.1	Interactions with ETP species are recorded.	Gap
	F1.2	There is no substantial evidence that the fishery has a significant negative effect on ETP species.	Gap
	F1.3	If the fishery is known to interact with ETP species, measures are in place to minimise mortality.	Gap
F2	Impacts on Habitats - Minimum Requirements		
	F2.1	Potential habitat interactions are considered in the management decision-making process.	Pass
	F2.2	There is no substantial evidence that the fishery has a significant negative impact on physical habitats.	Pass
	F2.3	If the fishery is known to interact with physical habitats, there are measures in place to minimise and mitigate negative impacts.	Pass
F3	Ecosystem Impacts - Minimum Requirements		
	F3.1	The broader ecosystem within which the fishery occurs is considered during the management decision-making process.	Gap
	F3.2	There is no substantial evidence that the fishery has a significant negative impact on the marine ecosystem.	Gap
	F3.3	If one or more of the species identified during species categorisation plays a key role in the marine ecosystem, additional precaution is included in recommendations relating to the total permissible fishery removals.	Gap

Species Name	Indian Oil Sardine		
A1	Data Collection - Minimum Requirements		
	A1.1	Landings data are collected such that the fishery-wide removals of this species are known.	Yes
	A1.2	Sufficient additional information is collected to enable an indication of stock status to be estimated.	GAP
	Stock Assessment - Minimum Requirements		

A2	A2.1	A stock assessment is conducted at least once every 3 years (or every 5 years if there is substantial supporting information that this is sufficient for the long-term sustainable management of the stock), and considers all fishery removals and the biological characteristics of the species.	GAP
	A2.2	The assessment provides an estimate of the status of the biological stock relative to a reference point or proxy.	GAP
	A2.3	The assessment provides an indication of the volume of fishery removals which is appropriate for the current stock status.	GAP
	A2.4	The assessment is subject to internal or external peer review.	GAP
	A2.5	The assessment is made publically available.	GAP
A3	Harvest Strategy - Minimum Requirements		
	A3.1	There is a mechanism in place by which total fishing mortality of this species is restricted.	GAP
	A3.2	Total fishery removals of this species do not regularly exceed the level indicated or stated in the stock assessment. Where a specific quantity of removals is recommended, the actual removals may exceed this by up to 10% ONLY if the stock status is above the limit reference point or proxy.	GAP
	A3.3	Commercial fishery removals are prohibited when the stock has been estimated to be below the limit reference point or proxy (small quotas for research or non-target catch of the species in other fisheries are permissible).	GAP
A4	Stock Status - Minimum Requirements		
	A4.1	<p>The stock is at or above the target reference point, OR IF NOT:</p> <p>The stock is above the limit reference point or proxy and there is evidence that a fall below the limit reference point would result in fishery closure OR IF NOT:</p> <p>The stock is estimated to be below the limit reference point or proxy, but fishery removals are prohibited.</p>	GAP

Proposed Actions

The actions proposed in the table below were discussed in a series of six thematic workshops with members of the FIP Stakeholder Committee at a meeting in Panjip (Goa, India) in February 2018.

This consultation sought comment from members of the stakeholder committee who then agreed to discuss with member organisations and government agencies about the content of the plan. Once these entities are supportive of the Plan it will be submitted to IFFO RS for approval.

Table 2 – proposed Actions to close the gaps

Proposed Actions – stock assessment Gaps addressed A1.2, A2.1-A2.5	Outputs	Year start	Time budget	Lead responsibility	Comment
Organise a workshop on future approaches to stock assessments aimed at reducing the amount of time between assessments to three years. Include analysis of rapid assessment approach and what may be needed to enable it to produce estimates of sustainable yield Workshop to include industry groups, fishery managers, science providers and other interested parties	Report for consideration	Year 1	6 months	Scientific research agency? Consultant?	<ul style="list-style-type: none"> Request Department of fisheries and department of fisheries will assign any institute for research. State department can appoint or request college of fisheries and this research can be done.
Data collecting program based on results of workshop. Investigate alternative data collection approaches if stock	Research report	Year 1	24 months	Science agency staff and fishermen?	

assessment cycle cannot be changed by government.					
Draft preliminary stock assessment and seek peer review. Assessment to contain estimate of sustainable yield and assessment of current state versus draft reference points (see next Section)	Report	Year 2	12 months	Science agency staff	
Ensure that stock assessment is publicly available	Web page	Year 3	3 months	Science agency staff, FIP project	
Proposed Actions – harvest strategy Gaps addressed A3.1-A3.3	Outputs	Time Table	Time budget	Lead responsibility	Comments
Establish reference points for the sardine stock based on best practice. Based on discussion document	Discussion document Workshop reports	Year 2	12 months	Fisheries agency plus stakeholders from all sardine fisheries	Dr. Shrinadkar from the college of fisheries Ratnagiri suggested that from data available since 1978 an average catch can be calculated using this we and find the trigger points.
Establish harvest control rules for each sector	Discussion document Workshop reports	Year 3	12 months	Fisheries agency plus stakeholders from all sardine fisheries	There are two sectors for harvest control. ie., Purse seine/ shore seine Mesh size and dimension of the gear to be optimum as

					recommended by ICAR-CIFT
Prepare and publish regulations to give effect to control rules	Advisory document	Year 4	6 months?	Fisheries agency and law makers	
Proposed Actions – Monitoring, Control and Surveillance Gaps addressed M2.1, M2.3, M2.4	Outputs	Time Table	Time budget	Lead responsibility	Comments
Clarify MCS arrangements in Maharashtra State	Short report	Year 1	3 months	FIP support consultant and agency staff	VTS rules should be available.
Liaise with government officials over the need for proper resourcing for MCS	Meetings	Year 1	6 months (and repeat if required)	FIP members	Secretary Director of Goa Fisheries department has said that enforcement is his top priority
Document MCS activities in both Goa and Maharashtra and provide evidence of enforcement	Short report	Year 1	12 months	FIP support consultant and agency staff	Each district in Maharashtra has a patrol vessel and there are two in Goa
Document how MCS efforts work towards implementation of national policy	Report	Year 2	3 months	MCS Consultant and agency staff	
Proposed Actions – ecosystem impacts Gaps addressed F3.1-F3.3	Outputs	Time Table	Time budget	Lead responsibility	Comments
Update and extend current Ecosim with Ecopath (EwE) model for SW India. Include	Report	Year 2	12 months	Science agency staff	

climate change effects and effects of predators such as dolphins					
Model and evaluate the effects of the fishery of interest and other sardine fisheries. Workshop with stakeholders	Report	Year 3	6 months	Science agency staff	
Incorporate any of the important results of the modelling into the fishery planning.	Fishery regulations	Year 3	6 months	Fisheries management staff and stakeholders	
Proposed Actions – protected, endangered and threatened species Gaps addressed F3.1-F3.3	Outputs	Time Table	Time budget	Lead responsibility	Comments
Detailed review of literature, including any local projects, that may have researched this area	Report	Year 1	6months	Consultant and agency staff	Mr Shrindakar from the Ratnagiri college of fisheries will give data to fill the gaps
Vessel based observer work	Report	Year 3	24 months	Consultant, fishermen and science support	CIFT may have some information based on vessel based work looking at dolphin depredation ICAR-CIFT is conducting work on depredation in ring seine by dolphins in South Kerala

Proposed Actions – other retained species	Outputs	Time Table		Lead responsibility	Comments
Write to RS Standards regarding the unit of assessment	Email exchange	Already done	Completed	FIP consultant	Will need to source information that documents how the mackerel and sardine fisheries are separate
Detailed review of literature, including any local projects, that may have researched this area	Short report	Year 1	3 months	FIP support consultant plus agency staff and other science providers	<p>If sardine shoals are encircled, then only sardine will be caught (more than 95%). Study can be undertaken along Maharashtra and Goa state to get actual knowledge of species composition percentage wise.</p> <p>Monthly department data (statistics) can be obtained from department of fisheries and college of fisheries showing different seasons for oil sardine and lesser sardine landings.</p>
Observer based catch sampling	Report	Year 3	24 months	Science providers and fishermen	

Once the proposed items have been approved they will be budgeted and a reporting schedule established.

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