
GLOBAL STANDARD FOR THE RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL

IFFO RS IMPROVER PROGRAMME: MILESTONE REPORT

LOGO

Fishery Under Verification	Panama Small Pelagic Fishery
Milestone	1 Year
Date	November 2016
Verifier	Sam Peacock





IP DETAILS AND SUMMARY OF THE MILESTONE VERIFICATION OUTCOME		
Name:		
Address:		
Country:	Zip:	
Tel. No.	Fax. No.	
Email address:	Applicant Code	
Key Contact:	Title:	
Verification Body Details		
Name of Verification Body:	RS Standards	
Assessment Period:	November 2016 – March 2017	
Scope Details		
Management Authority (Country/State)	Panama (ARAP)	
Main species	Anchoveta & Pacific herring	
Date of acceptance into IFFO RS IP	November 2015	
Original projected IP completion date	November 2020	
Fishery Location	Panama EEZ	
Gear Type(s)	Purse seine	
Outcome of Assessment		
Sections with Milestones	A2, B1, D3, E2	
Milestones not completed to the Fishery Action Plan	None	
Sections with Critical Milestones	None	
Critical Milestones not verified	N/A	
Recommendation	Maintain Improver Programme Status	
Critical Milestones Carried Over	None	

PREVIOUS FISHERY 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.

	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	Nov 15	May 16	Nov 16	Nov 17	Nov 18	Nov 19	Nov 20
A1	Projected						
	Actual	Milestone Completed					
A2	Projected						
	Actual		Milestone	Milestone			
A3	Projected						
	Actual			Milestone	Milestone	Milestone	
B1	Projected						
	Actual		Milestone	Milestone	Milestone		
B2	Projected						
	Actual				Milestone		Milestone
C1	Projected						
	Actual						
D1	Projected						
	Actual				Milestone		Milestone
D2	Projected						
	Actual	Milestone Completed					Milestone
D3	Projected						
	Actual		Milestone	Milestone			
E1	Projected						
	Actual	Milestone Completed					
E2	Projected						
	Actual	Milestone Completed	Milestone				

Rating key

Colour	IFFO RS Rating
	Highly Compliant to IFFO RS Raw Material Approval Criteria
	Medium Compliance to IFFO RS Raw Material Approval Criteria
	Low Compliance to IFFO RS Raw Material Approval Criteria
	Critical Milestone Raised

Critical Improvements

Section	Milestone date	Critical Milestone Due	

SUMMARY OF PROJECTED CHANGES – 1 YEAR

The following are the Projected Changes to be validated by this 1 year Milestone Report, along with a summary of the verification outcomes.

[A2] – VERIFIED – ADDITIONAL MILESTONE RAISED

Estimate discarding and bycatch rates.

Status: Estimates have been provided of bycatch rates in the small pelagic fishery. An additional milestone has been raised for the 2 year report, as follows:

- Provide information on the estimated bycatch rate of anchoveta and thread herring in other Panama fisheries, and on any discarding of the species which occurs.

[B1] – PARTIALLY VERIFIED

Conduct otolith sampling to provide age data.

Status: Efforts to initiate otolith sampling have been made, but only recently. Although there has been clear progress in data collection, this milestone has technically not been met. Due to progress being made no critical milestone has been raised; however additional progress will be required by the 2 year milestone report and the fishery has been marked as behind schedule on the FPP table (see end of report).

[D3] – VERIFIED – TIMELINE UPDATED TO REFLECT NEW DATA

Introduce a legal requirement for the reporting of interactions with ETP species.

Status: Although a legal requirement has not been implemented, data on ETP interactions has been collected via the observer programme. This data has raised a number of concerns about interactions with endangered and critically endangered species. Dealing with these concerns must form a key part of the future milestones for this section.

[D3] – VERIFIED

Introduce a habitat-monitoring component to fishery assessments.

Status: Significant progress has been made towards the conducting of a fishery-independent research cruise, including the contracting of a fishery consultancy.

[E2] – VERIFIED

Further detail on the fishery inspection regime is required. Evidence of the effectiveness of the Inspection, Surveillance and Control Department, for example enforcement statistics, would also be beneficial.

Status: Additional information was provided on fines applied to vessels in the fishery since 2012.

Validation Report

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<p>CeDePesca provided the results of two bycatch monitoring exercises, from 2016 and 2015, collected by on-board observers. Although no additional detail was provided for the 2015 data, the 2016 information included a comment that the data were collected from 318 fishing sets. The 2015 data indicates that <i>C. mysticetus</i> and <i>Opisthonema spp.</i> made up over 99% of the catch; the 2016 data shows they made up around 91%. Other species with a significant presence in the 2016 catch included the Pacific bumper (<i>Chloroscombrus orqueta</i>, 3.26% of catch) and Cachema weakfish or Sharpnose corvina (<i>Cynoscion phoxocephalus</i>, 1.4% of catch). Pacific bumper is categorised as a target species (although not included in the IFFO RS application), and so the non-target catch for 2016 was estimated at 3.9% of total landings.</p>																																																																																													
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<p>Catch composition of the Panama small pelagic fishery, as estimated by the observation of 318 fishing sets in 2016. Provided by CeDePesca.</p>																																																																																													
<p>The 2016 bycatch estimate also summarises the outcomes of the ETP monitoring logs as described in the evidence for section D3.</p>																																																																																													

No evidence was provided to indicate estimates of discarding rates have been made.

Validation Conclusion:

Clear steps have been taken to estimate bycatch rates, yielding useful information which indicates low rates of bycatch in the fishery (as is usual for targeted pelagic fisheries). The IFFO RS fishery assessment requires that stock assessments consider all fishery removals of the species under assessment, including bycatch in other fisheries and discards (if substantial). As progress has been made, no critical milestone has been raised. However, an additional standard milestone has been added for the 2 year milestone assessment as follows:

- Provide information on the estimated bycatch rate of anchoveta and thread herring in other Panama fisheries, and on any discarding of the species which occurs.

IFFO RS section	B1
Previous rating	Medium
New rating	Medium
Milestone	
Conduct otolith sampling to provide age data.	
Evidence Provided	
Initial steps have been taken to work towards an otolith collection programme. In September 2016 a meeting was held between ARAP and CeDePesca to determine the best approach to move forward with developing an otolith collection programme. The conclusions of the meeting were to hold a training day for ARAP researchers and members of the on-board Observer Programme with the assistance of experts from the Inter-American Tropical Tuna Commission (IATTC). The summary of the meeting provided by CeDePesca also notes that a tentative date was set for the training in November 2016, pending confirmation of support from the IATTC and the availability of herring specimens from the fishery.	
Validation Conclusion:	
The Fishery Progress Plan states that otolith sampling should be conducted as part of a wider effort to improve the understanding of stock structure through increased data collection. While it is clear that the process to enable otolith sampling to begin has started, the meeting to organise training was not held until nearly a year after the FPP was agreed and there was no evidence provided to demonstrate that the training occurred as indicated. As progress has been made (both here and in the collection of fishery-independent data, see section D3 below), a critical milestone has not been raised; however additional evidence should be provided by the fishery at the time of the 2 year milestone report to demonstrate that otolith sampling has been conducted and used in stock assessments. The fishery improver table below has been updated to reflect that the fishery is behind the timeline in this section.	

IFFO RS section	D3
Previous rating	Low
New rating	Low
Milestone	
Introduce a legal requirement for the reporting of interactions with ETP species.	
Evidence Provided	
<p>The on-board observer programme has been expanded to include collection of data on ETP interactions. Example logbooks were provided demonstrating the species ID keys and information recording used by observers to monitor interactions with turtles, sharks and rays. It is not clear what proportion of vessels or fishing trips have an observer present; the bycatch data reports that 318 fishing sets were observed in 2016. The summary reports that during 2016, the fleet encountered 42 turtles, 266 sharks and 48 rays.</p> <p>Of the turtles, all specimens were reported to be released; 85.7% apparently undamaged, 9.5% with minor injuries, and 4.8% with serious injuries. Species encountered were green sea turtle (<i>Chelonia mydas</i>, 33.3% of observations, listed as Endangered by the IUCN); olive ridley sea turtle (<i>Lepidochelys olivacea</i>, 26.2% of observations, listed as Vulnerable by the IUCN); and hawksbill sea turtle (<i>Eretmochelys imbricate</i>, 9.5% of observations, listed as Critically Endangered by the IUCN). The species of the remaining 31% of observations was not identified.</p> <p>No information was provided on the release or survival rates for sharks and rays. Of the species listed, the majority are categorised as Data Deficient by the IUCN. However the most significant shark interaction, in terms of numbers, is with the scalloped hammerhead, <i>Sphyrna lewini</i>. 249 individuals were caught in the sampled sets; scalloped hammerhead is categorised by the IUCN as Endangered.</p>	
Validation Conclusion:	
<p>Efforts to record interactions with ETP species have already yielded valuable information. Of particular interest is the apparently frequent capture of the endangered scalloped hammerhead, and the interactions with the endangered green turtle and critically endangered hawksbill. IFFO RS approval requires that fisheries identify potential impacts on ETP species, and put in place adequate measures to mitigate these impacts. The data collected by observers provides a clear indication to fishery managers of the interactions which are most in need of mitigation. As per the Panama Fishery Progress Plan, two further milestones will improve the score for section D3:</p> <ul style="list-style-type: none"> • Conduct a study to indicate potential ETP interactions – 2 years (Note that this milestone has already been largely met) • Implement technical measures to protect ETP species as required – 2 years + <p>Note that although there is no evidence of a legal requirement to report ETP interactions, it is clear that efforts have been taken to monitor the impacts of the fishery on ETP species via the existing observer programme. For this reason no critical milestone has been raised.</p>	

IFFO RS section	D3
Previous rating	Low
New rating	Low

Milestone

Introduce a habitat-monitoring component to fishery assessments.

Evidence Provided

Evidence was provided demonstrating a commitment to expanding fishery-independent data collection efforts, including the purchase of hydroacoustic equipment capable of studying habitats. An independent consultant, Albor Tecnológico of Lima, Peru, has been contracted to conduct a research cruise to collect fishery-independent data during February 2017. This cruise will include a hydroacoustic survey and purse seine sampling. Federico Iriarte, principle consultant of Albor Tecnológico, has submitted a set of costed survey options, which include up to ten days of surveys to study both the anchovy and herring stocks.

Área: Límites (al norte 9°00N 79°24W; al sur 8°06N; 80°29W y 8°06N; 78°17W)



Proposed survey route for hydroacoustic data collection. Provided by CeDePesca copy of a survey quote produced by Albor Tecnológico.

The documentation provided by CeDePesca also included invoices for payments made to Albor Tecnológico (for the survey) and for the hydroacoustic equipment.

Validation Conclusion:

There is clear documentary evidence of both a commitment to carry out fishery-independent surveys and progress being made towards these being conducted. One of the key findings of the initial assessment was that all the data used in stock assessments for these stocks was fishery-dependent, and thus the carrying out of a dedicated purse seine and hydroacoustic survey represents substantial progress. The extent to which this allows habitat to be considered in future stock assessments remains to be seen, but in any case the data collected during this cruise will help reduce uncertainty in stock projections and management decisions.

IFFO RS section	E2
Previous rating	Medium
New rating	Medium
Milestone	
Further detail on the fishery inspection regime is required. Evidence of the effectiveness of the Inspection, Surveillance and Control Department, for example enforcement statistics, would also be beneficial.	
Evidence Provided	
The Directorate of Inspection, Monitoring and Control provided a list of all the fines applied to vessels in the fleet since 2012; of these there were only five, three of which appear to have been a related incident (as they were all the same day). There have been no fines issues since 2013.	
Validation Conclusion:	
The 6 month milestone report concluded that insufficient evidence had been provided to demonstrate the effectiveness of the control and enforcement regime. This additional information on fines demonstrates that there is some enforcement of regulations. The information provided does not indicate whether the lack of sanctions over the last 3 years is due to a lax enforcement regime or high compliance rates among the fleet. At present this section would likely retain a score of medium compliance under a full IFFO RS assessment, which is adequate to allow approval of the fishery. However the score could be further improved with additional information covering the inspection regime applied to the fishery.	

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.

No additional information.

High Compliance	Green
Medium Compliance	Yellow
Low Compliance	Red

Ahead of FPP	Green
At FPP	Light Green
Behind FPP	Yellow

IFFO RS Scoring Criteria		Initial Score	Current Score	Key Improvements Required	Key Improvements Made	Status in Relation to FPP
A Management Framework	A1	Yellow	Green	- Provide additional information (6 months)	Provide additional information (May 2016)	Light Green
	A2	Yellow	Yellow	- Estimate Discarding & Bycatch rates (1 year) - Conduct a study on thread herring (2 years) - Conduct a stock distribution study (2 years)	Estimate discarding rates (Nov 2016)	Light Green
	A3	Yellow	Yellow	- Implement a management plan (2 years) - Develop reference points or proxies (3 years) - Manage the fishery in line with the plan and reference points (5 years)		Light Green
B Stock Assessment	B1	Yellow	Yellow	- Conduct otolith sampling (1year) - Introduce fishery-independent surveys (2 years) - Utilise the results and develop estimates of stock size and reference points (3 years)	Initiate process to enable otolith sampling (Nov 2016)	Yellow
	B2	Red	Red	- Ensure advice is regular (3 years) - Accumulate evidence (5 years)		Light Green
C Precautionary Approach	C1	Red	Red	- Progress in relation to other improvements.		Light Green
D	D1	Yellow	Yellow	- Develop stock size and reference point		Light Green

Management Measures				<ul style="list-style-type: none"> estimates (3 years) - Ensure scientific advice is based on these estimates (3 years onwards) - Accumulate evidence (5 years) 		
	D2			<ul style="list-style-type: none"> - Provide additional information (6 months) - Develop reference points and stay within them (5 years) 	Provide additional information (May 2016)	
	D3			<ul style="list-style-type: none"> - Continue bycatch monitoring and introduce technical measures (Ongoing) - Continue ecosystem monitoring and introduce technical measures (Ongoing) - Continue monitoring compliance with no-take zones (Ongoing) - Require the reporting of ETP interactions (1 year) - Introduce habitat monitoring (1 year) - Study potential ETP interactions (2 years) - Implement measures to protect ETP species as required (2 years) 	Implement measures by which interactions with ETP species are recorded by observers (Nov 2016)	
E Control & Enforcement	E1			<ul style="list-style-type: none"> - Provide additional information (6 months) 	Provide additional information (May 2016)	
	E2			<ul style="list-style-type: none"> - Provide additional information (6 months) - Provide additional information (1 year) 	Provide additional information (May 2016; Nov 2016)	

Panama Small Pelagic fishery, IFFO RS Improver Programme progress tracker, November 2016.