

Action plan for the preparation of an Eastern Atlantic - Ghana based - pole and line tuna Fishery Improvement Project (FIP)

Prepared for Thai Union – restricted distribution

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Report Information

Disclaimer: This report has been prepared with the financial support of Thai Union Europe (TUE). **Its findings and proposed actions are based to the best data collection and knowledge of the authors within the time period set to carry out the assignment (see introduction of the report for additional details).** The views expressed in this study are purely those of the authors and do not necessarily reflect the views of TUE, nor in any way anticipates their future policy in this area. The content of this report may not be reproduced, or even part thereof, without explicit reference to the source.

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Abbreviations

B	Biomass
BET	Bigeye tuna
C	Critical (IPG)
CMM	Conservation and Management Measures
CoC	(MSC) Chain of Custody
CoP	Code of (good) Practices
CECAF	Fishery Committee for the Eastern Central Atlantic
CPC	Contracting Party and Cooperating Non-Contracting Party
CR	Certification Requirements
EA PS FIP	Eastern Atlantic PS FIP
e.g.	<i>exempli gratia</i> in Latin, which means ‘for example’
EEZ	Exclusive Economic Zone
EMS	Electronic monitoring system
ETP	Endangered, Threatened and Protected
EU	European Union
EUR	Euro
F	Fishing mortality
FAD	Fish Aggregating Device
FAO	Food and Agriculture Organization of the United Nations
FCR	Fisheries Certification Requirements
FCWC	Fisheries Committee for the West Central Gulf of Guinea
FIP	Fishery Improvement Project
FMSY	Fishing mortality rate that would give maximum sustainable yield
FPA	Fisheries Partnership Agreement
GT	Gross Tonnes
GTA	Ghana Tuna Association
HCR	Harvest control rules
i.e.	Latin <i>id est</i> meaning ‘that is’
ICCAT	International Commission for the Conservation of Atlantic Tunas
ILO	International Labour Organisation
IPG	Improved Performance Goal
ISSF	International Seafood Sustainability Foundation
IUU	Illegal Unreported and Unregulated (fishing)
m	metre(s)
MCS	monitoring, control, and surveillance
MIRAH	Ministère des Ressources Animales et Halieutiques (Côte d’Ivoire)
MoFAD	Ministry of Fisheries and Aquaculture Development (Ghana)
MSC	Marine Stewardship Council
MSE	Management Strategy Evaluation
MSY	Maximum Sustainable Yield
mt	Metric tonnes (‘tonne’ is preferably used in the document)
N/A	Not available
Na (or na)	Not applicable
NC	Non-critical (IPG)
NGO	Non-governmental organisation
nm	Nautical mile
P	(MSC) Principle (P1, P2 and P3)
PI	Performance Indicator



PMT	Project Management Team
PRI	Point of Recruitment Impairment
PVR	ProActive Vessel Register
RBF	Risk-Based Framework
RFMO	Regional Fisheries Management Organisation
SB	Spawning Biomass
SG	Scoring Guidepost
SI	Scoring Issue
SKJ	Skipjack
t	tonne(s)
tbd	to be determined
TUE	Thai Union Europe
UoA	Unit of Assessment
UoC	Unit of Certification
v.	version
VMS	Vessel Monitoring System
YFT	Yellowfin tuna



1 Introduction

The conventional approach to preparing a scoping document then an action plan for a fisheries improvement project (FIP) is to base it upon an MSC pre-assessment, which identifies the weaknesses of the fishery and what improvements have to be made. In this case, whilst a previous pre-assessment has been conducted in the last five years, it has not been made available to the consultants.

TUE has requested Poseidon Aquatic Resource Management Ltd (Poseidon), a UK based fisheries consultancy firm at the request of Thai Union Europe (TUE) to rapidly draft a preliminary scoping document for a Ghanaian pole and line fishery so that they can initiate the FIP preparation process. The preliminary scoping document was written in January 2018:

- Using the background of a scoping document drafted for a similar pole and line fishery in the Eastern Atlantic and through knowledge of the fishery through field missions in Ghana for other assignments; and
- Applying a precautionary approach to adapt the scoping document to the Ghanaian pole and line fishery.

An MSC pre-assessment has been conducted early in March 2018. Under these circumstances and to keep the objective of launching the FIP as soon as possible, Poseidon has developed the action plan by updating, amending and correcting if necessary the text of the preliminary scoping document based on the findings and the text of the MSC pre-assessment report.

The preliminary scoping remains a work document being not aimed to be available to the public. The MSC pre-assessment is annexed to the action plan.

Currently the budget for the FIP is slightly below EUR 600 000 (equivalent to ~ GHS 3 million). Economies of scale have been applied on proposed similar actions scheduled within the Eastern Atlantic Purse Seine FIP in which a majority of pole and line FIP partners participates too. Also, half of the budget is dedicated to installing an electronic monitoring system (EMS). This latest action is therefore to be discussed between FIP partners. Without this action, the FIP represents EUR 60 k per year on five years (without including the costs for the project management team).

[Milestones by IPG/IPG action can be added after receiving comments from TUE and FIP partners]



2 Background

2.1 Purpose of the document

This document sets out the action plan for a Fisheries Improvement Project (FIP) for the Ghana-flagged pole and line vessels fishing for tuna in the Eastern Atlantic Ocean and landing most of their catches in Ghana, where the vessels are permanently based, and to some extent in Côte d'Ivoire (further details on the fishery provided in Chapter 3). A FIP aims to enable the fishery to pass the Marine Stewardship Council (MSC) certification standard.

2.2 Purpose of the FIP and reaching MSC fisheries certification

2.2.1 The MSC Standard for Responsible Fisheries

Under the MSC programme, fisheries are certified and entitled to display the blue ecolabel if they meet the MSC Standard: the principles and criteria for sustainable fishing. The Standard comprises three core principles:

1. Sustainable target fish stocks (Principle 1);
2. Impact minimisation of fishing on ecosystems (Principle 2); and
3. Effective fisheries management (Principle 3) (based on MSC FCR v 2.0¹).

The actions that fisheries take to demonstrate they meet these three principles vary considerably and take into account the unique circumstances of each fishery. Certification to the MSC Standard is a multi-step process conducted by independent certification bodies. The process usually begins with a **pre-assessment** to determine whether a fishery is ready for full assessment against the Standard and provides guidance about the issues that may need improvement to meet the MSC performance requirements. In this case (see previous Chapter), **a pre-assessment² will be conducted for this fishery in February/March 2017, so this scoping document can be considered preliminary in nature only.**

Briefly, the assessment process involves scoring 28 Performance Indicators - PIs (under FCR version 2.0) using narrative guides to the characteristics that will achieve scores (called scoring guideposts, SGs for short). To obtain the MSC certification, the fishery needs to achieve a score of 60 or more for each PI. If a fishery achieves a score of less than 60 on any PI, certification will not be awarded. Additionally, the fishery must have an aggregate score of 80 or higher for each of MSC's three principles to be certified.

2.2.2 Fisheries Improvement Projects

If the pre-assessment demonstrates that a fishery is unlikely to achieve the required standard across the three MSC principles, it will need to consider how the necessary improvements will be made to the identified weaknesses. If the improvements to the fisheries management procedures and information base could be made over a relatively short time-frame, that is five years or less, that would give greater confidence that the fishery is ready for full assessment. One approach to making these improvements is through a formal **Fisheries Improvement Project (FIP)**.

¹ See Page 5 of the FCR v 2.0.

² A pre-assessment has been carried out within the last three years however the document was not available to the public nor to Poseidon/Thai Union Europe at the date of drafting this document.

A FIP is a well-established process to improve fisheries sustainability over a set time. FIPs are usually:

1. Based on a MSC pre-assessment;
2. Have an agreed Action Plan with measurable indicators and an associated budget;
3. Involve a FIP 'Partnership' with a secretariat, a coordinator, and technical facilitators;
4. Have a final goal of MSC certification.

FIPs can give better market access as a FIP demonstrates commitment to reach the market-driven MSC standard. They can provide a framework to move a fishery towards sustainability by an agreed time by:

- Creating partnerships between fishers, buyers, researchers, and government;
- Strengthening fisheries management by addressing key gaps identified by a pre-assessment;
- Identifying clear targets and activities.

A FIP normally follows a pre-assessment which informs the design and initial benchmarking, and once under implementation, undergoes regular evaluation to track progress to the FIP's ultimate goal, be this MSC certification or an alternative agreed end point (see figure below).

FIPs are intended to be transparent process, with pre-assessments, workplans and progress evaluations open to public scrutiny. To this end, the website www.fisheryprogress.org/ has been developed to host FIP websites and documents.

2.2.3 Social and ethical issues in fisheries – an MSC self-declaration on forced labour in the future

Prior to launching an MSC assessment, the MSC Fisheries Certification Requirements v.2 requires that the assessment scope be confirmed. Among other conditions, the certification body must ensure that the fishery to be certified does not include an entity that has been successfully prosecuted for violations against forced labour laws based on national and international rules. The MSC evaluates forced labour in compliance with the International Labour Organisation (ILO)'s definition of forced labour.

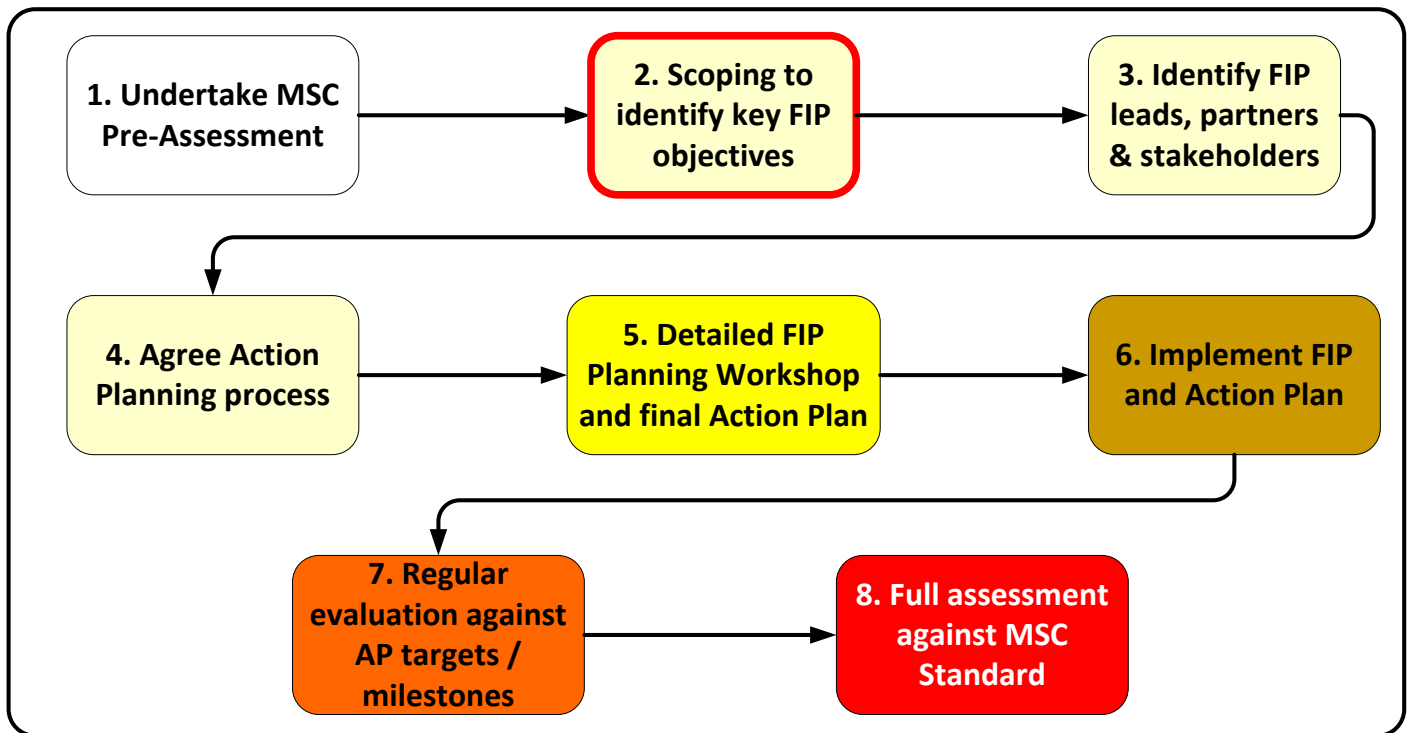
The MSC anticipates applying agreed risk-based and auditable social requirements in 2020. The development of the approach can be followed [online](#) on the MSC's programme improvements hub. This FIP will monitor progress of this initiative closely and engage with the MSC process at the earliest opportunity.

Note, in parallel, that Thai Union Europe applies an internal sourcing policy to assess whether Ghana pole and line vessels conforms to it. TUE's sourcing policy requires suppliers to comply with Thai Union Code of Conduct on Business Ethics. There is a **low risk of forced labour noticed by TUE on Ghana pole and line vessels supplying them tuna in 2017.**

2.3 Design Process

The development of a FIP is very much a stakeholder-driven process. As suggested by the figure below (next page), the starting point is the MSC pre-assessment report, which will have identified which Performance Indicators (PIs) have scored less than 80 being the unconditional pass level for MSC. Therefore, all those PIs that scored <60 (fail) or 60 – 79 (conditional pass) need to be assessed to determine the key weaknesses, how they can be addressed and by whom.

Figure 1: FIP Planning Process



Source: Poseidon

2.4 Background to the fishery

The 'Ghana' pole and line fleet is both flagged and based in Ghana. It fishes mostly in waters under the jurisdiction of Ghana, Côte d'Ivoire, and Benin waters and to some extent in the high seas (without licences, pole and line tuna fishing does not occur in Togo waters).

Their catch is brine-frozen at sea and landed at Tema Fishing Harbour to be processed in canning factories in Tema.

In some circumstances, some Ghana flagged pole and line vessels that are authorized to fish in Côte d'Ivoire waters tranship at port in Abidjan (Côte d'Ivoire) and the tuna intended to cans are then transported in frozen containers to Tema to be processed. The Ghanaian pole and line vessels may land fish in Abidjan, but this is infrequent. Pole and line vessels might also tranship from Takoradi.

Pole and line fishing is highly selective and the volume of tuna unfit to canneries is marginal. Tuna unfit for tuna canneries are sold to local markets, mostly through Tema and to some extent Abidjan.

The fleet catch mainly skipjack (2/3 of their total catch) and yellowfin tuna (currently around 1/3) as target species, in association with bigeye tuna (see catch composition in section 3.1). To catch tuna, the pole and line vessel vessels use drifting fish aggregating devices (DFADs) and small pelagic fish caught in Ghana waters as bait.

Historically all or part of the Ghana pole and line fleet has collaborated with purse seiners to catch tuna (IPNLF, 2012). This collaboration is no longer authorised by the Ghanaian fisheries authorities (since 22 June 2017) and the Ghana Tuna Association has informed the Ghanaian authorities that they will not apply this method anymore. Since then, the Ghanaian fisheries authorities has reportedly been deploying systematically an observer on board any fishing trip of a Ghanaian pole and line vessel to monitor the fishing activities (GTA, pers. comm., August 2017, see also the pre-assessment report).

2.5 Overall scope



The scope of the FIP has been defined as follows:

Table 1: overall scope of the FIP (to be confirmed at a later stage)

Target species	Skipjack tuna (<i>Katsuwonus pelamis</i>), yellowfin tuna (<i>Thunnus albacares</i>), and bigeye tuna (<i>Thunnus obesus</i>)
Fishing area	FAO fishing area 34 subdivision 3.3, 3.4, 3.5, 4.1. and 3.6 ³
Management system	ICCAT - International Commission for the Conservation of Atlantic Tunas – the areas above are under the mandate of the ICCAT, the regional tuna fisheries management organisation – RFMO - in the Atlantic Ocean:
Stocks	Eastern Atlantic skipjack tuna, Atlantic yellowfin tuna, Atlantic skipjack tuna
Fishing method	Pole and line
Unit of assessment (UoA)	<ul style="list-style-type: none"> • UoA 1 Ghana pole and line fishing fleet (skipjack tuna) • UoA 2 Ghana pole and line fishing fleet (yellowfin tuna) • UoA 3 Ghana pole and line fishing fleet (bigeye tuna)
Expected unit(s) of certification (UoCs)	<ul style="list-style-type: none"> • UoC 1 Ghana pole and line fishing fleet (skipjack tuna) • UoC 2 Ghana pole and line fishing fleet (yellowfin tuna) • UoC 3 Ghana pole and line fishing fleet (bigeye tuna)
FIP participants	<p><i>Main partners:</i></p> <ul style="list-style-type: none"> • FIP Coordinator: to be confirmed; • FIP facilitator: Thai Union Europe; • FIP country partner: the government of Ghana • FIP industry partners: owner of the pole and line fishing vessels and Cosmo <p><i>External partners:</i> WWF, ISSF // <i>Other potential external partners:</i> the government of Côte d'Ivoire, processors and traders in Ghana and Côte d'Ivoire; flag States of the vessels participating to the FIP and coastal States where the UoC vessels operate.</p> <p><i>Other key stakeholders:</i> ICCAT, the MSC</p>

Assumptions are that a) the UoAs are the units of certification (UoCs) for no other P&L fishery is present in the fishing area of the UoA and the entire Ghana P&L fishery is likely to apply for the fisheries certification; and b) the P&L fishing vessels are all members of the Ghana Tuna Association (GTA).

It is recognised that the fishing fleet might change over time if the FIP partnership is enlarged or decreased. The minimum requirement for a vessel to enter the FIP is to be listed on the International Seafood Sustainability Foundation (ISSF)'s proactive vessel register⁴.

³ <http://www.fao.org/fishery/area/Area34/en#FAO-fishing-area-34.1> , latest access: 23 February 2018.

⁴The ISSF ProActive Vessel Register (PVR) enables tuna vessel owners to identify themselves as active participants in meaningful sustainability efforts, such as implementing specific best practices.' ISSF website: <http://issf-foundation.org/knowledge-tools/databases/proactive-vessel-register/> , access: 13 March 2018.

3 Background to the fishery

3.1 Fleet of the fishery

Ghana is a member of ICCAT with a fleet of 20 bait boats (e.g. pole and line vessels) - and 17 purse seiners - registered in the ICCAT database (MSC pre-assessment report and, for the year 2016, Ghana national report to ICCAT, COC 301-TRI⁵).

3.2 Catch composition

The Ghana flagged pole and line fleet caught slightly less than 20 000 tonnes of skipjack, yellowfin and bigeye tuna in 2015 and 2016 in the East tropical Atlantic⁶. In 2016, skipjack represented two third of the fleet's total catch (excluding live bait) while yellowfin tuna represented a third. Bigeye dropped from about 12 % to 2 % of the fleet annual total catch in 2016 (ICCAT data, see Table 2). The pole and line fleet flagged in Ghana caught approximately SKJ 70 %; YFT 25 %; BET 5 % in 2017 according to GTA estimate.

Table 2: Ghana flagged pole and line vessels – catches by species by year in the East Tropical Atlantic (2014 – 2016, in tonnes) in tonnes

SpeciesGrp	Species	Stock	2014	2015	2016	2014	2015	2016
1-Tuna (major sp.)	BET	A+M	2 073	2 643	324	12%	13%	2%
	SKJ	ATE	11 393	13 562	13 051	68%	68%	63%
	YFT	ATE	2 766	2 950	6 447	16%	15%	31%
Total 1-Tuna (major sp.)			16 233	19 155	19 821	97%	96%	96%
Total 2-Tuna (small)								
3-Tuna (other)	TUN	A+M		844	821		4%	4%
	TUX	A+M	554			3%		
Total 3-Tuna (other)			554	844	821	3%	4%	4%
Total 4-Sharks (major)								
Total 5-Sharks (other)	FAL	A+M		2	11		0,01%	0,05%
	SPN	A+M	2	3	6	0,01%	0,01%	0,03%
	THR	A+M	5	7	13	0,03%	0,03%	0,06%
Total 5-Sharks (other)			7	12	30	0%	0%	0%
Total général			16 794	20 011	20 672	100%	100%	100%

Source: Poseidon – extraction of data from the ICCAT database⁷

For the catch location, see Section 2.4.

⁵ <http://www.iccat.int/com2017/>

⁶ ICCAT Statistical area.

⁷ <http://www.iccat.int/en/accesingdb.htm> database 'Task I Excel', extracted on 13 March 2018 (see the pre-assessment report for details).

3.3 Live bait and proportion of total catch

Live bait caught by the pole and line vessels themselves along the Ghanaian coast include anchovy (*Engraulis encrasicolus*), juvenile sardinella and scad⁸.

The Ghanaian pole and line vessels are authorised to catch bait within waters shallower than 30 m depth through their fishing licences (from examples of fishing licences collected by the authors in 2016 and August 2017).

The species, volume and composition of the live bait needs to be confirmed at a later stage of the FIP preparation or investigated as one of the first actions of the FIP.

At this early stage, as a **precautionary approach, the volume of anchovy is assumed to represent more than 5 % of the total catch when including all catches based on estimates provided by GTA and the FSSD (see rationale in the pre-assessment report).**

Following the ban of the purse seine collaboration (June 2017), the Ghanaian pole and line vessels are likely to increase the volume of bait used. This assumption was supported during a mission held by one of the authors in Ghana in August 2017, but this needs to be investigated further in the first actions of the FIP.

⁸ Anchovy was mentioned during a field mission of one of the authors in Ghana in August 2017. Anchovies and young sardinellas were also mentioned in Kwei et al., 1995 (see also Table 3 in IPNLF, 2012). There is a likelihood that bait boats use other species in lower quantities, however it ought to be confirmed through recent (scientific) data during the FIP.

4 Estimating MSC Performance Indicators requiring improvements based on similar initiatives

4.1 Related initiatives

The more northerly Senegal pole and line fishery was pre-assessed in the summer 2017 and is planning to enter a FIP. The scoping document to prepare it has been used by the authors to draft this scoping document due to the similar fishing methods and target stocks and updated-adpated using the pre-assessment of the Ghana pole and line fishery early in March 2018 (see Chapter 1 Introduction). The key differences are that i) bait fishing is carried out only by fishermen on board the Ghana pole and line vessels (as opposed to by other artisanal fishermen in Senegal) and ii) Ghanaian pole and line vessels use non-entangling FADs and tend to use biodegradable FADs, based on ISSF training regularly held in Tema (mission held in August 2017).

The Ghanaian pole and line fishery has been MSC pre-assessed in the recent years by a seafood trading company (Lovering) but the document is not public.

4.2 MSC Principle 1: Stock management

The fishery targets the same stocks to the ones under an **Eastern Atlantic purse seine tuna FIP** launched recently by Thai Union and other FIP participants in collaboration with WWF⁹. **The PI scoring less than 80 and the subsequent improved performance goals are harmonized on this FIP with minor adaptations when necessary.** However, ISSF has recently updated the scoring of the MSC Principles 1 and 3 in December 2017 (see Medley and Gascoigne, 2017). The Ghana pole and line FIP action plan has been adapted considering this updated ISSF scoring. The ISSF document showed an improvement in the P1 scoring of the tropical tuna with yellowfin showing a likelihood of passing P1 although scoring mathematically an aggregate of 80.6 only, so further improvements would be necessary to ensure a comfortable pass at full assessment.

4.3 MSC Principle 2: Ecosystem management

At this early stage, the live bait species anchovy is considered as main secondary species (no formal management tools in place) with similar issues as the ones noticed in the Senegalese pole and line fishery as a precautionary approach. Small pelagic species are targeted by artisanal and industrial fishing near the shores with stocks straddling and caught in waters under the jurisdiction of several coastal States from Côte d'Ivoire to Benin.

⁹ <https://www.wwf.org.uk/updates/tuna-fishery-improvement-project-formally-launched-eastern-atlantic-ocean> , latest access: 2 January 2018.

Their stocks are:

- Fully exploited – case for the European anchovy (FAO, 2017b) and the flat sardinella *S. maderensis* (FAO, 2017c);
- Overexploited – case for the round sardinella *S. aurita* (FAO, 2017c);
- With an uncertain stock status, for instance for the bonga shad (FAO, 2017a) and cunene horse mackerel *Trachurus trecae* (FAO, 2017d).

Habitat and ecosystem impacts are not likely for the pole-and-line fishery itself, but are possible in relation to the bait fishery, depending on the fishing method, fishing areas (depth, habitat) and the status of the relevant stocks. These cannot be evaluated until more information is available about the bait fishery.

As a first key action, it is recommended that a research project about the bait fishery (species, size, quantity, areas and habitats, fishing methods, usage rates) be implemented based on current related research projects'. For instance, USAID is funding research in Ghana to understand the stock status of small pelagic fish (Lazar et al., 2017). This key action is proposed within the FIP.

4.4 MSC Principle 3: Fisheries Governance and Management

Improved Performance Goals (IPGs) are both at regional (e.g. fisheries management body ICCAT) and national (e.g. Ghana) levels.

In particular, the management of the live bait stocks needs to be improved. Regional management of these stocks are not set under an explicit framework. Under those circumstances and as a precautionary approach the scoring mechanism and the proposed actions by IPGs are set based on the similar initiative in Senegal.

Similar issues were noticed as in the Senegal fishery: the fishing logbooks need to be expanded to include live bait capture (species, usage). Although these logbooks are intended to ICCAT, improvements are therefore required in terms of monitoring bait fishing.

Ghanaian legislation enables real-time monitoring of the pole and line vessels by VMS (but not through an automatic identification system). Sanctions have been recently updated. Also, Ghana published a FAD management plan in 2015, following ICCAT requirements.

Ghana has implemented an observer scheme on board its national pole and line fleet since mid-2017, in particular to ensure that collaboration with purse seiners does not occur anymore (collected information during field missions by the authors in March 2016 and August 2017). However improvements on data collection is required to better understand the potential interactions of fleet with the ecosystem.

Nothing major were noticed in terms of new ICCAT Conservation and management measures (CMM) expect a recommendation to flag States to retain all tropical tuna on board for baitboats (ICCAT recommendation 17-01). An 'ICCAT recommendation' is an obligation for ICCAT parties except if written differently. The ICCAT recommendation 17-01 will be active from mid-June 2018¹⁰.

¹⁰ See <http://www.iccat.int/Documents/Recs/compendiopdf-e/2017-01-e.pdf> , access: 13 March 2018 (see article 3). New ICCAT CMM not in force yet: <http://www.iccat.int/en/RecsRegsresults.asp?selectYear=2017&cajaKey=checkbox&cajaType=checkbox&cajaGroup=checkbox&cajaAct=checkbox&Submit=Search> , access: 13 March 2018.

5 Improved Performance Goals and outline of the FIP Action Plan

5.1 Issues to address by IPGs

The FIP will use various pre-assessment scoring information to identify where the fisheries will need to demonstrate improved performance to meet the MSC Standard for Responsible Fisheries. These deficiencies are used to formulate a set of 'Improved Performance Goals' (IPGs). There are two classes of IPGs as follows:

- **Critical IPGs:** For those PIs that scored less than 60 in the pre-assessment (i.e., a fail)
- **Non-critical IPGs:** For those PIs that scored between 60 and 79 in the pre-assessment (i.e., a possible conditional pass)

Note, however, that non-critical IPGs may in practice be critical as key elements of critical IPGs (for example in P2 where management scores <60 and information 60-79, but better management cannot be implemented without better information).

Based on related initiatives, **Table 3** summaries the requirements for critical and non-critical IPGs. Where the score is above 80, no IPG is required and that PI is not included in the FIP. **Note again that a precautionary approach has been applied in drafting the action plan.**

The purpose of the FIP is to improve the performance of individual PIs (and their constituent Scoring Issues (SI)) over time to the point at which they will consistently score 80 or above. It is important to remember that a pass can only be achieved at the Principle level, as it is the weighted average across the Principle that is required. Therefore, a fishery can fail even if none of the individual PIs scored <60. Hence the more IPGs the FIP addresses, the more certainty that an 80-aggregate score for that Principle can be achieved.

The sections 6.3 to 0 provides further details on the proposed IPGs in the Tables below. The tables set out i) which PIs the IPG applies to, ii) which stocks (UoA) it applies to and iii) its level (critical vs. non-critical). It provides a set of detailed objectives for the IPG, which are taken from the relevant scoring issues scoring <80 for the PIs concerned. It then proposes actions to achieve these objectives **[milestones will be added following receipt of first comments on the action plan from TUE]** – these should be considered a basis for discussion. **IPGs are numbered in Table 3 based on the numbering of the IPGs in sections 6.3 to 0.**

Table 3: Identification of Improved Performance Goals (precautionary approach)

PI	Score	IPG number	UoA SKJ	UoA YFT	UoA BET	Bait fishery	Issue for IPG to address	Critical vs. non-Critical
1.1.1	60-79	1		x	x		Stock status in relation to achievement of MSY	NC
1.1.2	60-79	1			x		Stock rebuilding ¹¹	NC
1.2.1	60-79	2	x	(x)	x		Harvest strategy for the targeted stocks	NC
1.2.2	60-79	2	x	x	x		Effective harvest control rule and tools for the stocks	NC
1.2.3	60-79	3	x				Improved information for stock assessment for skipjack	NC
1.2.4	60-79	3	x				Assessment of stock status	NC
2.1.1	60-79	1			x		Maintain BET above the PRI (precautionary approach), handled under IPG for PI 1.1.1	NC
2.1.3	60-79	3	x				Improved information for stock assessment for skipjack, handled under IPG for PI 1.2.3	NC
2.2.1	60-79	4 5, 6				Bait fishery	<i>Note: main secondary species: anchovy but to be confirmed by robust evidence</i> Main secondary species above biologically based limit or UoA not hindering recovery if below the limit	NC
2.2.2	<60	5, 6				Bait fishery	<ul style="list-style-type: none"> UoA strategy and measures in place to manage live bait fishing in Ghana (main secondary species) Regional and national management of key bait stocks (see P3) 	C
2.2.3	<60	4				Bait fishery	Robust data on bait use in the pole-and-line fleet (species, quantity, fishing characteristics, location etc.)	C*
2.3.1	60-79	7				FADs	Ensure that the fishery is not having an impact on ETP species through FADs: implementation of ICCAT requirements on FADs and robust evidence of the UoA of not hindering recovery of ETP species	NC**
2.3.2	60-79	7				FADs	Ensure that ICCAT FAD requirement are applied in full and review alternative measures to minimise mortality of ETP species	NC
2.3.3	<60	7				FADs	Ensure that information is collected and provided to ICCAT as per requirements	C
2.4.3	60-79	8				Bait fishery	Evaluate habitats in the bait boat fishing areas (precautionary approach)	NC
2.5.1	60-79	5				Bait fishery	Ensure the bait fishery is not having unacceptable impacts on the ecosystem	NC
2.5.2	<60	5				Bait fishery	Improve local management of live bait fishery such that ecosystem impacts are at an	NC

¹¹ Note: PI 1.1.1 stock status for yellowfin was scored at 60-80, but in this case, 1.1.2 (stock rebuilding) is taken to the associated 'action'; it scored 80 or above, therefore no further actions are required for this PI.

PI	Score	IPG number	UoA SKJ	UoA YFT	UoA BET	Bait fishery	Issue for IPG to address	Critical vs. non-Critical
							acceptable level	
2.5.3	<60	4				Bait fishery	Collect information on the ecosystem where bait fishing occurs so that the impacts of the bait fishery can be evaluated	NC
3.1.1	60-79	9				Tuna fishery	Improve the ICCAT dispute-resolution framework	NC
	<60	6				Bait fishery	Establish a framework for regional and national management of key bait stocks observing local community rights and dispute resolutions	C
3.1.2	60-79	9				Tuna fishery	Support ICCAT to improve information from stakeholders	NC
	<60	6				Bait fishery	Establish a framework for regional-national management of key bait stocks with consultation processes	C
3.1.3	60-79	6				Bait fishery	Establish explicit objectives for regionally-shared bait stocks applying a precautionary approach at regional and national level	NC
3.2.1	60-79	6				Bait fishery	Establish explicit objectives for regionally-shared bait stocks	NC
3.2.2	60-79	5, 6				Bait fishery	Ensure that management decision-making for bait fishery and stocks is precautionary	NC
3.2.3	60-79	9				Tuna fishery	Support ICCAT, and flag-coastal States (Ghana especially) when appropriate, in improving fisheries monitoring and sanctions such that they are an effective deterrent	NC
		7				FAD	FAD: Ensure that exhaustive information is collected and provided to ICCAT as per ICCAT requirements	NC
	<60	5				Bait fishery	Ensure that there is an effective compliance system for the bait fishery in Ghana waters (precautionary scoring)	NC
3.2.4	60-79	5				Bait fishery	Establish a system for monitoring and reviewing the specific bait fishery management system in Ghana waters	NC

* same as 2.5.3; ** same as PI 2.3.2 and 2.3.3

5.2 Summary of the IPGs

Below the proposed IPGs are summarised based on Table 3 above. Note that because the MSC PIs are non-independent to each other, one IPG can cover a set of PIs on related issues (the same approach is applied in the budget).

List of IPGs:

IPG 1 for yellowfin and bigeye tuna



-
- IPG 2 for targeted tuna under P1: harvest strategy and control rules development and implementation
- IPG 3 for Eastern skipjack under Principle 1: Improved knowledge for stock assessment
- IPG 4 for bait fishing under Principle 2: information improvement
- IPG 5 for bait fishing under Principles 2 and 3: stock status and management improvements at national level
- IPG 6 for bait fishing under Principles 2 and 3: stock status and management improvements at regional level
- IPG 7 FAD (and ETP) management under Principle 2: Impact minimisation and monitoring enhancements
- IPG 8 for bait fishing under Principle 2: Habitat impact minimisation (precautionary approach at this stage)
- IPG 9 for tuna fishing under Principle 3: better tuna fishing governance

6 Action plan Next steps

6.1 Overview

This preliminary scoping exercise fulfils the first step advocated by WWF for FIP processes:

- **Step 1** requires that 'FIPs must have a **Scoping Document and an MSC pre-assessment completed** by an independent, third-party auditor who has experience applying MSC Fishery Assessment Standard' (WWF, 2016). *This preliminary scoping report will be upgraded over the next few months with a new pre-assessment report (see below for more details).*

The subsequent steps:

- **Step 2: Action Plan Development.** An Action Plan (likely to be up to five years) must be developed to improve the fishery to a level conforming to MSC standard, targeting any deficiencies identified during the Scoping in Step 1; and
- **Step 3: Implementation.** FIPs must make progress according to the indicators and timeframes agreed in the Action Plan, and should employ an independent system for tracking and reporting progress against Action Plan indicators ensuring milestones (such as policy changes, improvements in fishing practices, reduced habitat impacts or stock improvements), are met. FIP fisheries must also commit to ensure transparent operations. **[milestones will be added following receipt of comments on the action plan from TUE and FIP partners]**

are discussed in more detail below.

6.2 Action Plan Development

This preliminary scoping document identified the critical and non-critical Improved Performance Goals that must be achieved to reach a level where the MSC certification is likely to be successful. The next stage, following the pre-assessment and finalisation of the scoping report, is the development of a detailed Action Plan to review and adjust the IPGs proposed above, and provide practical action planning to enable the FIP to achieve the milestones outlined in the IPGs above. **[ibid]**

Key elements of the Action Plan include:

1. **Listing of fishing company partners that will participate to the FIP** based on the minimum selection requirements (ISSF Proactive Vessel Register or PVR listed first but not exclusively) to identify the potential future Units of Certification.
2. **Eligibility of fishery products to enter further Chains of Custody:** a brief analysis of the eligibility of certified fishery products to enter further MSC Chains of Custody will be part of the next stage. Entries could indeed be carriers at transshipping locations (for instance in Côte d'Ivoire) and fish storage at landing locations (for instance in Ivory Coast and Ghana) - all landing locations will need to be considered.
3. **Detailed development and agreement of IPGs, actions and time-bound milestones [ibid]:** the IPGs provided in this scoping document are provided as a simple framework and need to undergo considerable development by the FIP partnership. This will include:
 - a. Review of the IPGs to ensure that they capture all the weaknesses as determined by ALL the relevant pre-assessments.
 - b. Development of actions that are practical and achievable by the FIP partners and other key stakeholders. In particular, it is important to consult with key stakeholders outside the FIP partnership, especially ICCAT having an important role in meeting the action plan milestones



and private stakeholders¹² having already implemented activities to responding to IPGs listed in the previous pages (IPG tables above).

- c. Specification and agreement of the various outputs and milestones resulting from the activities, including their timing. It is important to ensure that co-dependencies across different IPGs are fully recognised and their design and timing amended accordingly.

4. **Allocation of responsibilities:** responsibilities will need to be allocated at two levels:
 - a. **Activity-level:** each activity will need to have a designated lead partner, together with an identification of other partner responsibilities as well as any external (e.g. outside the FIP partnership) cooperation and inputs.
 - b. **FIP level:** there needs to be a clear organisation structure and lines of command within the FIP partnership. The action plan will need to agree the need for – and responsibilities of – the different roles that will be played by FIP partners and their resources.
5. **Review processes:** it is planned that this FIP will take place over a five-year period. It will be necessary to both include progress *monitoring tools* e.g. recurrent reporting and the possible use of the MSC FIP Benchmarking and Tracking Tool (BMT) as well as an independent evaluation of FIP progress, possibly by an accredited Conformity Assessment Body (CAB).
6. **Budget development:** a considerable number of actions are proposed by this scoping study which will require both staff time and expenses. In addition, there will be costs associated with the management of the FIP, as well as the intermittent evaluation processes. These costs need to be quantified and set into a formal budget once the action plan has been formulated.
7. **Funding:** finally, but still crucial, is the identification and confirmation of funding for the budget. This needs to be agreed and put in place before the FIP can be launched.

The PMT and the FIP participants are invited to develop, when possible, collaboration mechanisms to save costs with:

- related FIPs in the region especially the Eastern Atlantic purse seine FIP launched in December 2017¹³ (EA PS FIP) and the potential future FIP for the Senegal pole and line fishery but also, when agreed by FIP participants, the 'OPAGAC' FIP (a FIP carried out in the Eastern Atlantic by a Spanish purse seine fishing association, which started in October 2016¹⁴); and
- Related initiatives such as public funded development projects to improve sustainable fisheries, for instance EU, World and US funded projects.

Cost-efficiency could occur by sharing experience, information and, when possible, joining forces in carrying out some common actions, for instance but not exclusively on those related to IPGs to meet the MSC Principles 1 and 3.

The next sections present the actions by IPG based on the structure above with.

- An Action lead: The (proposed) organisation that will take responsibility for the IPG actions. The action lead is further discriminated between the Action Lead (usually one of the FIP partners) and the implementation partner e.g. ICCAT, MoFAD.
- Action partners: Other organisations directly involved in implementing the IPG actions;

¹² For instance, related purse seine FIPs in the Eastern Atlantic Ocean with results of implemented projects to pass P2.

¹³ <https://www.wwf.org.uk/updates/tuna-fishery-improvement-project-formally-launched-eastern-atlantic-ocean> , access: 16 March 2018.

¹⁴ <https://fisheryprogress.org/fip-profile/atlantic-ocean-tropical-tuna-purse-seine-opagac> OPAGAC acts as an observer to the EA PS FIP.

-
- Other stakeholders: Other stakeholders with an interest, or who could potentially support FIP activities under this IPG, including other Atlantic FIPs (for instance the Mauritanian small pelagic FIP¹⁵).

¹⁵ <https://fisheryprogress.org/fip-profile/mauritanian-small-pelagics-purse-seine> , latest access: 17 Oct. 2017.



6.3 IPG 1 for yellowfin and bigeye tuna – sustainable stocks

IPG 1		1.1.1 The yellowfin tuna and bigeye tuna stocks are at a level which maintains high productivity and has a low probability of recruitment overfishing 1.1.2 Where the stock is reduced, evidence of stock rebuilding within a specific timeframe				
Target species	SKJ	YFT	√	BET	√	
Status	Non-critical					
Scoring Issue	Actions	Timescale / Milestones	Action lead / implementation	Action partners	Other stakeholders	
1.1.1 (b) Stock status in relation to achievement of Maximum Sustainable Yield (MSY)	Monitor the enactment of routine YFT and BET stock assessments by ICCAT and, if deferred or delayed, advocate that they continue as per the current schedule (for safety follow the situation of SKJ)	<ul style="list-style-type: none"> No milestones. Annual review of YFT and BET stock assessment and status in line with the recovery plan (Expected stock assessment – current ICCAT schedule: 2018 for BET, YFT 2021 and SKJ 2019 – see pre-assessment report)	PMT ICCAT	MoFAD Eastern Atlantic Purse Seine FIP PMT	ISSF WWF	
1.1.2 (a) Rebuilding timeframes	A practicable rebuilding timeframe is specified without exceeding one generation time	<ul style="list-style-type: none"> End Y1: Robust, comprehensive BET rebuilding strategy developed. End Y2: ICCAT has adopted the above rebuilding strategy. End Y3: Stock rebuilding strategy implemented. 	Key coastal States (Côte d'Ivoire, Ghana): Ghana Fishing Authorities (MoFAD) and MIRAH ICCAT (with independent scientific assistance)	WWF FIP industry partners FIP Country partners	FIP external country partners	
1.1.2 (b) Rebuilding evaluation	There is evidence that the rebuilding strategies are rebuilding stocks, or it is likely based on simulation modelling, exploitation rates or previous performance that they will be able to rebuild the	<ul style="list-style-type: none"> End Y3: Fishing mortality F is $<F_{MSY}$. End Y5: Stock assessment or other incontrovertible evidence shows that stocks can rebuild the stock within the specified timeframe. 	Key coastal States (Côte d'Ivoire, Ghana): Ghana Fishing Authorities (MoFAD) and MIRAH	FIP industry partners FIP Country partners	FIP external country partners	



	stock within the specified timeframe (SG80).		ICCAT		
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Note template above from the Eastern Atlantic Purse Seine FIP

Actions to be coordinated by the Eastern Atlantic Purse Seine FIP PMT (economies of scale) - – potential share of costs to carry out the actions to be discussed with the EA PS FIP partners

Year	Activities	Resources	Approx. cost (EUR)
Year 1	1a Monitor the enactment of routine stock assessments by ICCAT and, if deferred or delayed, advocate that they continue as per ICCAT's schedule	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 2	1b Ibid	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 3	1c Ibid	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 4	1d Ibid	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 5	1e Ibid	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 1	1a: Monitoring independent scientific assistance provided by the Eastern Atlantic PS FIP (EA PS FIP)	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 2	None	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 3	2. Monitoring re-evaluation of rebuilding plan through the EA PS FIP	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 4		PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 5		PMT / Eastern Atlantic Purse Seine FIP resource	-
Total			-



6.4 IPG 2 for targeted tuna under P1: harvest strategy and control rules development and implementation

IPG 2	1.2.1 There is a robust and precautionary harvest strategy in place. 1.2.2 There are well defined and effective harvest control rules (HCRs) in place.					
Target species	SKJ	√	YFT	(√)	BET	√
Status	Non-critical					
Objective(s) (relevant SG80 scoring issues)				Overall action - indicative timeline		
<p>1.2.1 – scoring issue (a,bc, and e)</p> <ul style="list-style-type: none"> The harvest strategy is responsive to the state of the stock and the elements of the harvest strategy work together towards achieving stock management objectives reflected in PI 1.1.1 SG80. The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives. Regular review of the potential effectiveness and practicality of alternative measures to minimise mortality of unwanted catch and they are implemented as appropriate → to handle PI 2.1.2e <p>1.2.2 (scoring issue a,and c)</p> <ul style="list-style-type: none"> Well defined HCRs are in place that ensure that the exploitation rate is reduced as the PRI is approached, are expected to keep the stock fluctuating around a target level consistent with (or above) MSY The HCRs are likely to be robust to the main uncertainties. Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the HCRs. 				<ul style="list-style-type: none"> Year 1: Develop clear harvest strategy objectives by target species (Target reference points are already agreed but these should also include rebuilding objectives, such as maximum acceptable rebuilding time, also maximum acceptable risk of the stock falling below the limit reference point etc. They may also include other management criteria such as limits to the inter-annual change in catch limits, mechanism and review of alternative measures, etc.) Year 2: Evaluate candidate HCRs for their performance against the agreed management objective (MSE) End Year 2/Year 3: Based on the conclusions of the MSE, agree HCR. Year 3: Agree tools for the implementation of the HCR (e.g. catch limits or other) End Year 3: Implement the HCR and tools (with a mechanism of alternative measures review and implementation at the UoA level) 		

Activities coordinated by the EA PS FIP – monitored by the Eastern Atlantic (Ghana) PMT only – economies of scale. See EA PS FIP for further details for each action – potential share of costs to carry out the actions to be discussed with the EA PS FIP partners

Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
PMT ICCAT – EA PS FIP PMT	MoFAD (and MIRAH when appropriate), FIP industry partners, FIP Country partners, ISSF	WWF



Year	Activities (note: activities subject to regular updates based on the ICCAT plan and progress to develop harvest strategies and related HCR)	Resources	Approx. cost (EUR)
Year 1	3a: Engage with Ghana scientists and delegations (EA PS FIP action) - monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	€PMT
	3b: Schedule regular meetings with relevant government stakeholders (EA PS FIP action) – participation - savings may occur if the EA PS FIP PMT represent the Eastern Atlantic (Ghana) P&L FIP in some circumstances	PMT 4 meetings / year over 3 years (2, 3 & 4)	€PMT
	3c: ICCAT Briefing Document on Harvest Strategies – (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	€PMT
Year	Activities	Resources	Approx. cost (EUR)
Year 1 (cont'd)	3d: Position paper for a harvest control strategy and HCRs - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	3e: Promote best practice for harvest strategy and stock rebuilding - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	3f: Strengthen partnership with ABNJ , a World Bank funded programme with FAO coordination - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	3g: Proposal to ICCAT of a work plan and timetable for the implementation of Rec. 15-07 for each stock - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	3h: Progress harvest strategy development - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	3i: Review the detailed catch composition of unwanted targeted tuna in the UoA and list alternative management measures currently applied by the UoA to minimise mortality	Action to be carried by GTA in association with FSSD (observation) Bycatch (or fisheries management specialist) as advisor, started in the	-

¹⁶ *: ICCAT working party on tropical tuna was [meeting on 4-8 Sept. 2017](#) with one objective to develop a timetable for putting in place a harvest strategy for the tropical tunas. Actions and milestones are as a placeholder until the timetable is available. The proposed approach above is close to the one foreseen by the ICCAT secretariat. (The meeting report - http://www.iccat.int/Documents/Meetings/Docs/2017_TRO_REPORT_ENG.pdf (see Table 11 especially p. 29), latest access: 15 March 2018). The ICCAT meeting to enhance dialogue between scientists and managers to be held on 21-23 May 2018 is likely to provide updated information. Documents and data to prepare this meeting are not available at the date of writing the action plan (<http://www.iccat.int/en/meetingscurrent.htm> , latest access: 15 March 2018.).



Year	Activities (note: activities subject to regular updates based on the ICCAT plan and progress to develop harvest strategies and related HCR)	Resources	Approx. cost (EUR)
		field during other activities the same year – 5 d remote	
	3j: Define a (short but robust) plan to elaborate, implement and review alternative measures to minimise mortality 'of unwanted catch in the UoA' (even if no or very marginal unwanted catch) – action at the UoA level: to be carried by the fleet with external advice (suggested to be added within a specific fishery management plan) - next actions to be determined and budgeted based on this first activity Milestone: action plan implemented in year 2	See budget and resource in line above (within the 5 d remote above: 3 d)	-
Year 2	3k: Progress in harvest strategies reviewed - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	3l: Implement the action plan to minimise mortality of unwanted catch of targeted tuna by alternative measures and regularly review them based on 3j – PMT monitoring (end of year 2 or early year 3)	PMT	
Year 3	3m: Progress in harvest strategies reviewed - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 4	3n: Progress in harvest strategies reviewed and progress evaluated - (EA PS FIP action) monitoring	PMT / EA PS FIP FIP resource	-
Year 5	None		
Year 1	4a: Building regional consensus on the need for robust HCRs - (EA PS FIP action) monitoring	PMT / EA PS FIP FIP resource	-
	4b: Ensure a holistic implementation HCR development - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
	4c: Provide an independent paper on the scope and needs of HCRs - (EA PS FIP action) monitoring	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 2	4d: On-going engagement with coastal states and ICCAT over HCR development - (EA PS FIP action) monitoring.	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 3	4e: Independent evaluation of HCR robustness and effectiveness - (EA PS FIP action) monitoring.	PMT / Eastern Atlantic Purse Seine FIP resource	-
Year 4	4f: On-going engagement with coastal states and ICCAT over HCR development - (EA PS FIP action) monitoring	PMT / EA PS FIP resource	-
Year 5	None		
TOTAL			-



6.5 IPG 3 for Eastern skipjack under Principle 1: Improved knowledge for stock assessment

IPG 3	1.2.3 Relevant information is collected to support the harvest strategy. (Next SKJ stock assessment expected by ICCAT: 2019)	
	1.2.4 There is an adequate assessment of the stock status.	
Target species	Eastern SKJ:	√
Status	Non-critical	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>1.2.3 (S1a and b)</p> <p>Sufficient relevant information related to stock structure, stock productivity, fleet composition and other data are available to support the harvest strategy</p> <p>With recent sustained higher exploitation, the fisheries will need to develop more accurate abundance indices and catches measures</p> <p>1.2.4 (S1b)</p> <p>The assessment estimates stock status relative to reference points that are appropriate to the stock and can be estimated.</p> <p>The assessment takes uncertainty into account.</p>		<ul style="list-style-type: none"> • Year 1: Ensure the fishery is providing all information to ICCAT as per requirements. • Year 1: Work with ICCAT secretariat to evaluate whether the fishery can provide additional information useful for improving the stock assessment. • Year 2: Develop systems to provide additional information as proposed by ICCAT • Year 3: Implement improved information system.

Activities coordinated by the EA PS FIP – monitored by the Eastern Atlantic (Ghana) PMT only – economies of scale. See EA PS FIP for further details for each action – potential share of costs to carry out the actions to be discussed with the EA PS FIP partners

Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
WWF	MoFAD (and MIRAH)	ISSF
PMT	FIP external partners (especially national fisheries research institutes in Ghana and IRD and AZTI)	
ICCAT and FIP fishing partners		



Year	Activities	Resources	Approx. cost (EUR)
Year 1	5a: Engage with ICCAT SCRS and stock WGs to evaluate key data gaps. Short-term technical assistance in Yr. 1 with ICCAT SCRS to review and assess data quality of SKJ removals in the EAO. Will develop methodology (for ICCAT) to improve estimates, more accurate abundance indices, catch measures, and reduce uncertainties.	EA PS FIP tuna stock assessment specialist (+1d from the EA GHA P&L FIP)	-
Year 2	None		
Year 3	None		
Year 4	5b: Review of updated information systems on fisheries removals. Review of the actions taken to date, progress in work plan implementation, and an evaluation of remaining gaps in data collection and analysis.	EA PS FIP tuna stock assessment specialist (+1d from the EA GHA P&L FIP)	-
Year 5	None		
Year	Activities	Resources	Approx. cost (EUR)
Year 1	6a: Engagement with ICCAT SKJ Species and WGSAM on developing more robust, quantitative approaches to stock assessment (see Report of the 2014 ICCAT East and West Atlantic Skipjack Stock Assessment Meeting (Dakar, Senegal - June 23 to July 1, 2014)	Project Management Team	€PMT
Year 2	6b: Follow up next SKJ stock assessment report and recommendations to ensure stock assessments support the development of applicable, quantitative HCRs	Project Management Team	€PMT
Year 3			
Year 4			
Year 5			
TOTAL			-



6.6 IPG 4 for bait fishing under Principle 2: information improvement on bait fishing activities

IPG 4	<p>(2.2.1 Main secondary species above biologically based limit or UoA not hindering recovery if below the limit)</p> <p>2.2.3 Information on the nature and amount of secondary species taken is adequate to determine the risk posed by the UoA and the effectiveness of the strategy to manage secondary species.</p> <p>2.5.3 There is adequate knowledge of the impacts of the UoA on the ecosystem.</p>	
Target species	SKJ -YFT - BET	√
Status	Critical	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>(2.2.1. Understanding which live bait main and minor secondary species are to score the PI)</p> <p>2.2.3 (SI a,b,c)</p> <ul style="list-style-type: none"> Some quantitative information is available and is adequate to assess the impact of the UoA on the main secondary species with respect to status. Information is adequate to support a partial strategy to manage main secondary species <p>2.5.3 (SI a to e)</p> <ul style="list-style-type: none"> Main impacts of the UoA on key ecosystem elements can be inferred from existing information, and some have been investigated in detail Adequate information is available on the impacts of the UoA on these components to allow some of the main consequences for the ecosystem to be inferred Adequate data continue to be collected to detect any increase in risk level 		<p>Year 1</p> <ul style="list-style-type: none"> Work with scientists to assess what information is required from the pole-and-line vessels to improve management of the bait fishery and its effect on underlying ecosystems Work with the fishing companies to develop a system for providing the relevant information on bait species use (e.g. adapted paper or electronic logbooks) Work on technical issues with scientists (e.g. conversion bait volume to weight for selected species, how to sample mixed-species bait) Develop training as required (e.g. bait species identification, sampling, completing the logbooks) <p>Year 2</p> <ul style="list-style-type: none"> Continue analysis of technical issues as required Start to roll out training to fleet on bait data collection Implement data collection system on selected vessels; make changes as required <p>Year 3</p> <ul style="list-style-type: none"> Implement data collection system across the fleet



Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
PMT The Fisheries Commission (MoFAD) in general FIP fishing partners (GTA)	FIP external partners Regional fisheries bodies advising on small pelagic (CECAF) ISSF if relevant	WWF Related pole and line tuna FIP in West Africa

Year	Activities	Resources	Approx. cost (EUR)
Year 1	7a: Industry to work with national fisheries scientists-managers to assess: <ul style="list-style-type: none"> What information is required from the pole-and-line vessels to meet the IPG, (for instance, identify what can be and shall be systematically recorded by the crew and what shall be recorded by observers); Technical issues for data collection: for instance, conversion bait volume to weight for selected species, how to sample mixed-species bait <p>The action of recording information on live bait fishing be initiated by the industry and the Fisheries Commission, that is before a fisheries biologist be recruited to provide any support/advice</p> <p>(To list national/international research/fisheries management projects that may contribute to respond to the IPG – see ‘IPG 5 for bait fishing under Principles 2 and 3: stock status and management improvements at national level’ first action)</p>	Fisheries biologist (5 days field mission) EAFM specialist (8 days field mission + 5 days remote) (with experience or knowledge in responding to P2 issues and in tropical small pelagic fish) (PMT)	-
	7b: Work with the Industry and national fisheries scientists-managers to develop a recording system for providing the relevant information on bait species use (e.g. adapted paper or electronic logbooks) - suggested to be coordinated by the Fisheries Commission	See line above	-
	7c: Develop data collection training as required based on the above a and b (e.g. bait species identification, sampling, completing the logbooks) - suggested to be coordinated by the Fisheries Commission	See line above	-
Year 2	7d: Continue analysis of technical issues as required – PMT monitoring through external expertise: suggested to be carried out by FSSD	Fisheries biologist (1 remote) EAFM specialist (5 days field mission)	-
	7e: Start to roll out training to fleet on bait data collection – PMT monitoring: as line above	See line above	-



Year	Activities	Resources	Approx. cost (EUR)
	7f: Implement data collection system on selected vessels; make changes as required – PMT monitoring	See line above	-
Year 3	7g: Implement data collection system across the fleet – PMT monitoring	PMT	-
Year 4	7h: External review of the mechanism for potential improvement	Fisheries biologist (1 remote) EAFM specialist (5 days field mission)	-
TOTAL			-



6.7 IPG 5 for bait fishing under Principles 2 and 3: stock status and management improvements at national level

IPG 5	<p>2.2.1 and 2.2.2 There is a strategy in place for managing secondary species that is designed to maintain or to not hinder rebuilding of secondary species; and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch.</p> <p>2.5.1 The UoA does not cause serious or irreversible harm to the key elements of ecosystem structure and function.</p> <p>2.5.2 There are measures in place to ensure the UoA does not pose a risk of serious or irreversible harm to ecosystem structure and function.</p> <p>3.2.2 The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives and has an appropriate approach to actual disputes in the fishery.</p> <p>3.2.3 Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with</p> <p>3.2.4 There is a system for monitoring and evaluating the performance of the fishery-specific management system against its objectives. There is effective and timely review of the fishery-specific management system.</p>	
Target species	SKJ -YFT - BET	√
Status	Critical	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>2.2.1 - 2.2.2</p> <ul style="list-style-type: none"> There is a partial strategy in place, if necessary, for the UoA that is expected to maintain or not hinder rebuilding of main secondary species at/to levels which are highly likely to be above biologically based limits or to ensure that the UoA does not hinder their recovery. There is some objective basis for confidence that the measures/ partial strategy will work, based on some information directly about the UoA and/or species involved There is some evidence that the measures/ partial strategy is being implemented successfully <p>2.5.1</p> <ul style="list-style-type: none"> The UoA is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. <p>2.5.2</p> <ul style="list-style-type: none"> There is a partial strategy in place, if necessary, which takes into account available information and is expected to restrain impacts of the UoA on the ecosystem so as to achieve the Ecosystem Outcome 80 level of performance. There is some objective basis for confidence that the measures/ partial strategy will work, 		<p>Year 1</p> <ul style="list-style-type: none"> Source external projects/organisations as required to improve the management of the fishery and ecosystem (e.g. West Africa Regional Fisheries Project, PESCAO - EU project towards improving sustainable management, the small pelagic FIP in Mauritania (see www.fisheryprogress.org) may serve as an example even if not within the fishing area of this FIP) Bring together stakeholders from the live bait fishery to discuss issues relevant to management (e.g. ecosystem impacts of the fishery, other environmental issues such as pollution, socio-economic issues, institutional issues etc.) Evaluate options for alternative sources of bait <p>Year 2</p> <ul style="list-style-type: none"> Based on the stakeholder analysis of issues develop an outline strategy and framework for putting in place management of the live bait fishery in Ghana Agree proposed strategy with key stakeholders (<u>including artisanal</u>



<p>based on some information directly about the UoA and/or the ecosystem involved</p> <ul style="list-style-type: none"> • There is some evidence that the measures/partial strategy is being implemented successfully <p>3.1.3</p> <ul style="list-style-type: none"> • Precautionary approach to long term management of the small pelagic <p>3.2.2</p> <ul style="list-style-type: none"> • Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation, and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. • Decision-making processes use the precautionary approach and are based on best available information <p>3.2.3</p> <ul style="list-style-type: none"> • Sanctions to deal with non-compliance exist, are consistently applied, and thought to provide effective deterrence • Some evidence exists to demonstrate fishers comply with the management system under assessment, including, when required, providing information of importance to the effective management of the fishery <p>3.2.4</p> <ul style="list-style-type: none"> • A mechanism in place to evaluate key parts of the fishery specific management system • Regular internal and occasional external review 	<p><u>fishermen targeting the same stocks)</u></p> <ul style="list-style-type: none"> • Develop and agree details of strategy, e.g. stock and ecosystem objectives, consultative decision-making processes, timeframe for implementation <p>Year 3</p> <ul style="list-style-type: none"> • Start to implement strategy, potentially initially as a pilot, including rolling out a compliance system <p>Year 4</p> <ul style="list-style-type: none"> • Evaluate successes and failures of initial implementation; adapt strategy and framework as required <p>Year 5</p> <ul style="list-style-type: none"> • Full implementation of the specific management system for live bait fishery
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Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
<p>PMT</p> <p>The Fisheries Commission (MoFAD) in general FIP fishing partners (GTA)</p>	<p>FIP external partners Artisanal fishermen catching the same fish used as live bait by the pole and line fishery</p>	<p>WWF Related pole and line tuna FIP in West Africa Regional fisheries bodies advising on small pelagic (CECAF) ISSF if relevant</p>



The actions below can (should) be initiated by the FIP partners without depending on external expertise. The quality of the outputs expected by the actions below will be highly dependent on the good level of information on live bait fishing – previous IPG to answer to PI 2.2.3. The planning proposed for this IPG is therefore considering this dependence.

Economies of scale made by contracting part of the same external expertise for IGP PI 2.2.3 above (costs not added again below then).

Year	Activities	Resources	Approx. cost (EUR)
Year 1	8a: Source external projects/organisations as required to improve the management of the fishery and ecosystem (a related list may be available at the Fisheries Commission) – reevaluate budget responsibilities for the related IPGs – not exclusively this one - if external support available // including advocacy to integrate the precautionary approach to the Ghana Fisheries Act (see IPG related to P3) – <i>cross-cutting activity for live bait fishing improvement, to update the list twice a year (at least once a year) over the FIP until end of year 5</i>	PMT (punctual from the external expertise such as the FMP and EAFM specialist if necessary)	-
	8b: Stakeholder consultation on live bait fisheries management (and on establishing in writing a draft regular consultation process) and practical guidance to develop and implement a strategy and potential alternative sources of bait (to prepare the next actions)	Fisheries management specialist – as external advisor (preferably with experience in MSC P2 on secondary species management) 5 days in the field EAFM specialist – as external advisor 5 days in the field Meeting costs	-
	8c: Evaluate options for alternative sources of bait – PMT monitoring	PMT	-
Year 2	8d: Develop an outline strategy and framework for putting in place management of the live bait fishery Strategy including a mechanism for its evaluation and regular review (with one to review alternative management measures)	Fisheries management specialist – as external advisor 2 days (remote) EAFM specialist (2 days	- -



Year	Activities	Resources	Approx. cost (EUR)
		remote)	
	8e: Agree a proposed strategy with key stakeholders (including representative(s) of artisanal fishermen targeting the same stocks) – meeting	Meeting costs See line above	-
	8f: Develop and agree details of strategy, e.g. stock and ecosystem objectives, consultative decision-making processes, timeframe for implementation	Fisheries management specialist – as external advisor 3 days (remote) Meeting costs EAFM specialist (3 days remote)	- -
Year 3	8g: Pilot strategy implementation – PMT monitoring	PMT	-
Year 4	8h: Evaluate successes and failures of initial implementation; adapt strategy and framework as required	Fisheries management specialist – as external advisor (5 days in the field) EAFM specialist (5 days in the field)	- -
Year 5	8i: Full implementation of the specific management system for live bait fishery – PMT monitoring	PMT	-
TOTAL			-



6.8 IPG 6 for bait fishing under Principles 2 and 3: stock status and management improvements at regional level

IPG 6	<p>2.2.2 There is a strategy in place for managing secondary species that is designed to maintain or to not hinder rebuilding of secondary species; and the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of unwanted catch.</p> <p>3.1.1 Existing management system within an appropriate legal and/or customary framework (respect for rights)</p> <p>3.1.2 Management system with an effective consultation process</p> <p>3.1.3 Management policy with clear long-term objectives that guide decision-making</p> <p>3.2.1 Fishery specific management system with clear specific objectives</p> <p>3.2.2 Fishery specific management system with effective decision-making processes</p>	
Target species	Eastern SKJ, YFT, BET:	√
Status	Critical	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>2.2.2</p> <ul style="list-style-type: none"> • There is a partial strategy in place, if necessary, for the UoA that is expected to maintain or not hinder rebuilding of main secondary species at/to levels which are highly likely to be above biologically based limits or to ensure that the UoA does not hinder their recovery. • There is some objective basis for confidence that the measures/ partial strategy will work, based on some information directly about the UoA and/or species involved • There is some evidence that the measures/ partial strategy is being implemented successfully <p>3.1.1</p> <ul style="list-style-type: none"> • There is an effective national legal system and organised and effective cooperation with other parties, where necessary, to deliver management outcomes consistent with MSC Principles 1 and 2 • The management system incorporates or is subject by law to a transparent mechanism, for the resolution of legal disputes, which is considered to be effective in dealing with most issues and that is appropriate to the context of the UoA 		<p>Year 1</p> <ul style="list-style-type: none"> • Evaluate relevant stocks and their geographic distribution based on preliminary results from IPG related to 'IPG 4 for bait fishing under Principle 2: information improvement on bait fishing activities' • Evaluate the status of relevant stocks and associated requirements for management • Evaluate the most appropriate regional framework for management of these stocks (e.g. national, bilateral, multi-lateral) • Engage with other regional stakeholders as appropriate <p>Year 2</p> <ul style="list-style-type: none"> • Work with regional stakeholders to prepare a workplan for putting in place management for relevant stocks • Start the development of a clear regional framework for management of shared stocks



<p>3.1.2</p> <ul style="list-style-type: none"> The management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained. The consultation process provides opportunity for all interested and affected parties to be involved <p>3.1.3</p> <ul style="list-style-type: none"> Implicit clear long-term objectives that guide decision-making, consistent with MSC fisheries standard and the precautionary approach, are explicit within management policy. <p>3.2.1</p> <ul style="list-style-type: none"> Short and long-term objectives, which are consistent with achieving the outcomes expressed by MSC's Principles 1 and 2, are explicit within the fishery-specific management system. <p>3.2.2</p> <ul style="list-style-type: none"> Decision-making processes respond to serious and other important issues identified in relevant research, monitoring, evaluation, and consultation, in a transparent, timely and adaptive manner and take account of the wider implications of decisions. Decision-making processes use the precautionary approach and are based on best available information 	<ul style="list-style-type: none"> Agree plan with relevant regional stakeholders <p>Year 3</p> <ul style="list-style-type: none"> Start work on implementing management plan and framework for relevant regional shared stocks <p>Year 4</p> <ul style="list-style-type: none"> Continue implementation based on the remaining weaknesses <p>Year 5</p> <ul style="list-style-type: none"> Regional framework and management in place
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Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
<p>PMT</p> <p>The Fisheries Commission (MoFAD) in general, FSSD on stock assessment</p> <p>FIP fishing partners (GTA), MIRAH</p>	<p>Regional fisheries bodies advising on small pelagic (CECAF)</p> <p>Fisheries Committee for the West Central Gulf of Guinea (FCWC)</p> <p>FIP external partners, Artisanal fishermen catching the same fish used as live bait by the pole and line fishery</p>	<p>WWF</p> <p>Related pole and line tuna FIP in West Africa</p> <p>ISSF if relevant</p>



Year	Activities	Resources	Approx. cost (EUR)
Year 1	9a: Evaluate relevant stocks and their geographic distribution based on results of 'IPG 4 for bait fishing under Principle 2: information improvement on bait fishing activities	Action led by FSSD in liaison with CECAF <i>(to assess at an early stage of the FIP process if external expertise required – see 9c if needed otherwise PMT monitoring)</i>	
	9b: Evaluate the status of relevant stocks	Same as above	
	9c: Evaluate the associated requirements for management	Fisheries Management specialist (5 d field)	-
	9d: Evaluate the most appropriate regional framework for management of these stocks (e.g. national, bilateral, multi-lateral) including a mechanism of its regular review with one to review alternative management measures	See line above	
	9e: Engage with other regional stakeholders as appropriate -action including advocacy and a public position paper of the FIP partners to regional fishery bodies mentioning a need of a precautionary approach to regional fisheries management policies if currently missing in those current policies)	See line above	
Year 2	9f: Work with regional stakeholders to prepare a workplan for putting in place management for relevant stocks	Fisheries management specialist (5 days remote over the year 2) 1-day meeting costs if needed	-
	9g: Start the development of a clear regional framework for management of shared stocks (including a mechanism of regular review with one to review alternative management measures	See line above	
	9h: Agree plan with relevant regional stakeholders	See line above 1-day meeting costs if needed	
Year 3	9i: Implementing an effective management plan and framework for relevant regional shared stocks – PMT monitoring	PMT	
Year 4	9j: Continue implementation with improvements based on the remaining weaknesses	Fisheries management specialist (5 days in the field)	-
Year 5	9k: Regional framework and management in place – PMT monitoring	PMT	
TOTAL			-



6.9 IPG 7 FAD (and ETP) management under Principle 2: Impact minimisation and monitoring enhancements

IPG 7	<p>2.3.1 The UoA meets national and international requirements for protection of ETP species. The UoA does not hinder recovery of ETP species.</p> <p>2.3.2 The UoA has in place precautionary management strategies designed to: - meet national and international requirements; and - ensure the UoA does not hinder recovery of ETP species. - Also, the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of ETP species.</p> <p>2.3.3 Relevant information is collected to support the management of UoA impacts on ETP species, including: - information for the development of the management strategy; - information to assess the effectiveness of the management strategy; and - information to determine the outcome status of ETP species.</p> <p>3.2.3 Monitoring, control and surveillance mechanisms ensure the management measures in the fishery are enforced and complied with.</p>	
Target species	Eastern SKJ, YFT, and BET:	√
Status	Critical (through 2.3.3)	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>2.3.1</p> <ul style="list-style-type: none"> Direct effects of the UoA are highly likely to not hinder recovery of ETP species. Indirect effects have been considered for the UoA and are thought to be highly likely to not create unacceptable impacts. <p>2.3.2</p> <ul style="list-style-type: none"> There is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species. There is an objective basis for confidence that the partial strategy/ strategy will work, based on information directly about the UoA and/or the species involved. There is some evidence that the measures/strategy is being implemented successfully <p>2.3.3</p> <ul style="list-style-type: none"> Some quantitative information is adequate to assess the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species Information is adequate to measure trends and support a strategy to manage impacts on ETP species <p>3.2.3 FAD monitoring (and control if necessary) according to ICCAT requirement is adequate in</p>		<p>FAD management improvement to monitor based on the Ghana FAD Management plan (year 2015) and any update (none for the moment)</p> <p>ETP management plan</p> <p>Year 1</p> <ul style="list-style-type: none"> Review ICCAT requirements for FADs with all FIP fishing companies (e.g. – activity to carry out in association with IPG 9 for tuna fishing under Principle 3: better tuna fishing governance Review the FAD management plan and update/improve if necessary based on the above Work with the fishing companies and the Ghanaian national observer programme to develop a system for providing the relevant information if any weakness noticed (such as FAD logbooks to capture data on FADs, collecting historical data on FADs, collecting information on ETP species and FAD characteristics) Pilot new FAD and ETP species data collection system if necessary; review outcome and adapt as required to respond to the ICCAT requirements and the FIP objectives Work with the fishing companies to source or develop new FAD designs, if



the fishery	<p>necessary (with the support of ISSF training)</p> <ul style="list-style-type: none"> Complete conversion to non-entangling (if still necessary) and, if possible, biodegradable FADs (required by ICCAT: ICCAT rec. 16-01 article 24 point ii) <p>Year 2:</p> <p>To respond to any new ICCAT requirements on FADs</p> <ul style="list-style-type: none"> First, check that all FADs used are biodegradable (ICCAT rec. 16-01) Review new ICCAT requirements for FADs with all FIP fishing companies; Review the current FAD design and test then implement new FAD designs in the fishery if necessary; and Review the FAD data collection system and FAD management plan and improve both again if necessary <p>--</p> <ul style="list-style-type: none"> Elaborate an ETP specific fishery management strategy (based on the current measures applied by the fleet) to respond to all scoring issues within the MSC PI 2.3.2 including applying-reviewing alternative measures (within or without the FAD management plan above - tbd) <p>Year 3 - 5: ibid.</p> <p>To respond to any new ICCAT/ MSC requirements on FADs</p> <ul style="list-style-type: none"> Implement the ETP specific fishery management strategy
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Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
<p>PMT The Fisheries Commission (MoFAD) in general FIP fishing partners (GTA)</p>	<p>ICCAT FIP external partners, ISSF</p>	<p>WWF Related pole and line tuna FIP in West Africa</p>



Year	Activities	Resources	Approx. cost (EUR)
Year 1	10a Review ICCAT requirements for FADs with all FIP fishing companies (e.g. – activity to carry out in association with IPG 9 for tuna fishing under Principle 3: better tuna fishing governance.	FAD/bycatch specialist (5 days and 5 days remote)	-
	10b Review the FAD management plan and update/improve if necessary based on the above	See line above	-
	10c Work with the fishing companies and the Ghanaian national observer programme to develop a system for providing the relevant information if any weakness noticed (such as FAD logbooks to capture data on FADs, collecting historical data on FADs, collecting information on ETP species and FAD characteristics)	See line above	-
	10d Pilot new FAD and ETP data collection system if necessary; review outcome and adapt as required to respond to the ICCAT requirements and the FIP objectives	PMT	-
	10e Work with the fishing companies to source or develop new FAD designs, if necessary (with the support of ISSF training)	See 10a	-
	10f Complete conversion to non-entangling (if still necessary) and, if possible, biodegradable FADs (required by ICCAT: ICCAT rec. 16-01 article 24 point ii)	See 10a	-
Year 2	10g First, check/control that all FADs used are biodegradable (ICCAT rec. 16-01)	FAD/bycatch specialist (5 days remote)	-
	10h Review new ICCAT requirements for FADs with all FIP fishing companies	See line above	-
	10i Review the current FAD design and test then implement new FAD designs in the fishery if necessary; and	See line above	-
	10j Review the FAD data collection system and FAD management plan and improve both again if necessary	See line above	-
	10k Elaborate an ETP specific fishery management strategy Milestone: implementation end of year 2	FAD/bycatch specialist (5 days remote)	-
Year 3	10l Review the FAD/ETP data collection system and FAD/ETP management plan and improve both again if necessary	FAD/bycatch specialist (5 days in the field)	-
Year 4	10m - Ibid (10j) – PMT monitoring	PMT	-
Year 5	10n – Ibid (10j)	FAD/bycatch specialist (5 days in the field)	-
TOTAL			-



6.10 IPG 8 for bait fishing under Principle 2: Habitat impact minimisation (precautionary approach at this stage)

IPG 8	2.4.3 Information is adequate to determine the risk posed to the habitat by the UoA and the effectiveness of the strategy to manage impacts on the habitat. (precautionary approach at this early stage of the FIP preparation)	
Target species	Eastern SKJ, YFT, and BET:	√
Status	Non-critical	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>2.4.3</p> <p>The nature, distribution, and vulnerability of the main habitats in the UoA area are known at a level of detail relevant to the scale and intensity of the UoA.</p> <p>Information is adequate to allow for identification of the main impacts of the UoA on the main habitats, and there is reliable information on the spatial extent of interaction and on the timing and location of use of the fishing gear</p> <p>Adequate information continues to be collected to detect any increase in risk to the main habitats</p>		<p>Year 1</p> <ul style="list-style-type: none"> Evaluate available information on habitats and MPAs related to habitat protection in the fishing areas (for instance, analyse first the Ghana MPA strategy: its situation, implementation and monitoring, a 157-p. draft available in January 2018) Evaluate the likely habitat impacts of the gears used by live-bait fishers Assess whether more information is required to assess habitat impacts of the live-bait fishery – <u>if not, stop.</u> <p>Year 2</p> <ul style="list-style-type: none"> If necessary collect habitat information such that any sensitive areas can be identified, now or in a future (in that case, additional budget to be determined during the FIP implementation)

Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
<p>PMT</p> <p>The Fisheries Commission (MoFAD) in general: FSSD</p>	<p>FIP fishing partners (GTA)</p> <p>Government ministries especially the Ministry of Environment, Science and Technology and the Environmental Protection Agency (EPA)</p> <p>Local civil society, artisanal fishermen active in the same fishing areas</p> <p>FIP external partners; CEEAC and WCFC</p>	<p>WWF</p> <p>Related pole and line tuna FIP in West Africa to share experience</p>



Year	Activities	Resources	Approx. cost (EUR)
Year 1	11a Evaluate available information on habitats and MPAs related to habitat protection in the fishing areas (for instance, analyse first the Ghana MPA strategy: its situation, implementation and monitoring, a 157-p. draft available in January 2018)	As external advisor to the Fisheries Commission: EAFM specialist during his/her mission on 'IPG 4 for bait fishing under Principle 2: information improvement on bait fishing activities' + 4 days remote	-
	11b Evaluate the likely habitat impacts of the gears used by live-bait fishers	See line above	
	11c Assess whether more information is required to assess habitat impacts of the live-bait fishery – <u>if not, stop</u>	See line above - PMT	
Year 2	Not applicable (NA) – see overall action previous page		
Year 3	NA		
Year 4	NA		
Year 5	NA		
TOTAL			-



6.11 IPG 9 for tuna fishing under Principle 3: better tuna fishing governance

IPG 9	<p>3.1.1 The management system exists within an appropriate and effective legal and/or customary framework which ensures that it (i) is capable of delivering sustainability in the UoAs, (ii) observes the legal rights created explicitly or established by custom of people dependent on fishing for food or livelihood; and (iii) incorporates an appropriate dispute resolution framework.</p> <p>3.1.2 The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties.</p> <p>3.1.3 The management policy has clear long-term objectives to guide decision-making and incorporates the precautionary approach.</p> <p>3.2.1 The fishery-specific management system has clear, specific objectives designed to achieve the outcomes expressed by MSC's P1 & P2.</p> <p>3.2.2 The fishery-specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives, and has an appropriate approach to actual disputes in the fishery. 3.2.3 MCS mechanisms ensure the management measures in the fishery are enforced and complied with.</p> <p>3.2.3 Compliance and enforcement</p>	
Target species	Eastern SKJ, YFT, and BET:	√
Status	Non-Critical	
Objective(s) (relevant SG80 scoring issues)		Overall action - indicative timeline
<p>3.1.1</p> <p>a) The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes which is considered to be effective in dealing with most issues and that is appropriate to the context of the UoA; and</p> <p>b) Compatibility of laws and standards with effective management in the context of the UoA</p> <p>3.1.2</p> <p>a) Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction.</p> <p>b) The (national) management system includes consultation processes that regularly seek and accept relevant information, including local knowledge. The management system demonstrates consideration of the information obtained (not an issue at the regional level according to</p>		<p><i>The following actions shall be implemented, monitored, and if necessary updated, in line with ICCAT milestones to modernise its regional management activities.</i></p> <p>Year 1:</p> <ul style="list-style-type: none"> • Improve monitoring of the UoA fleet by applying EMS (assess the need to update the Ghanaian fisheries legislation to require pole and line vessels to have EMS on board) – PI 3.2.3 • Improve monitoring of the UoA fleet by applying AIS (update Ghanaian fisheries legislation to require Ghanaian pole and line tuna fleet to have a permanently active AIS device on board except in case of force majeure) – PI 3.2.3 • Monitor ICCAT progress in improving the dispute resolution procedures, if slow progress: PI 3.1.1 <ul style="list-style-type: none"> ○ Intersessional discussions with ICCAT CPCs to improve resolution of dispute ○ Advocacy paper to ICCAT plenary session on dispute resolution • (End year 1) Roles and responsibilities of data transmission to ICCAT in relevant format



Medley and Gascoigne, 2017 p. 222)

3.2.3

- ICCAT level: sanctions to deal with non-compliance exist, are consistently applied, and thought to provide effective deterrence (3.2.3 related to a robust FAD monitoring and control too: see IPG 7 FAD (and ETP) management under Principle 2: Impact minimisation and monitoring enhancements
- Compliance to CMMs in providing data to ICCAT (based on the compliance report)

and in a timely manner, partly understood by, at least, the organisations of the flag States' vessels and the coastal States where the vessels are active and are required to provide data to ICCAT (Ghana and Côte d'Ivoire) PI 3.1.2

- (End year 1) Assessment whether sanctions to deal with non-compliance to ICCAT rules are effectively deterrent at ICCAT level, coastal States, and flag States (e.g. sanctions against using non-compliant FADs and collaboration of pole and line vessels with other fishing vessels in breach of ICCAT rules) – activity to be carried in association with actions against PI 3.1.1. objective b) above – PI 3.2.3

Year 1-2:

- Review to identify major legislative gaps in relevant States to comply with ICCAT CMMs and sanctions (Ghana and coastal States where the vessels operate) – PI 3.1.1

Year 2:

- Assess effectiveness and efficiency to apply EMS (and AIS: option) – PI 3.2.3
- (End year 2) an independent review identifies major legislative gaps in national efforts to comply with ICCAT CMMs (including sanctions) – PI 3.1.1
- (End year 2): roles and responsibilities of data transmission to ICCAT fully understood by, at least, the organisations of the flag State' s vessels and the coastal States where the vessels are active PI 3.1.2

Year 3:

- Evidence presented that any major legislative gaps (or discrepancies/weaknesses) at national level are being effectivity addressed. PI 3.1.1
- Written and robust evidence that the fishery is responding to MSC requirements with regards to PI 3.2.3 following the action above - to ensure that it will not be an issue during full assessment – if weaknesses remaining, adapt actions for year 4 and 5 below

Year 4:

- Follow up and facilitation of a fishery specific compliance strategy if deterrent sanctions not in place PI 3.2.3

Year 5: -



Action lead / implementation (same for all actions except stated different differently in the next table)	Action partners	Other stakeholders
PMT The Fisheries Commission (MoFAD) in general: FSSD FIP partners (GTA especially)	FIP external partners MIRAH (Côte d'Ivoire)	EA PS FIP partners, related pole and line tuna FIP in West Africa, WWF, Other civil society, Associations of small-scale fishermen active in the same fishing areas and targeting the same species

Economies of scale to achieve results at the regional fisheries management level (ICCAT) by collaborating actively with the EA PS FIP and other related FIPs in the Eastern Atlantic

Year	Activities	Resources	Approx. cost (EUR)
Year 1	12a Improve monitoring of the UoA fleet by applying EMS – provision of EMS to 17 vessels within the fleet <ul style="list-style-type: none"> Fixed costs estimate provided by FIP partners (equivalent in EUR presented here) include vessel equipment, onshore equipment and project coordination 	PMT monitoring Other activity support costs	-
	12b Local FIP partners to assess the need to update the Ghanaian fisheries legislation accordingly for AIS and EMS requirement on board the UoA – PMT advocacy and monitoring only	PMT	-
	12c Improve monitoring of the UoA fleet by applying AIS depending on the action above (and update Ghanaian fisheries legislation accordingly) – estimate to install a class B AIS device without travel costs included: EUR 1 500 per vessel (note that AIS will not cost anything to run as long as it is not used for fleet management which is an add-on) – locate source of co-funding if agreed by FIP partners	Other activity support costs - tbd	-
	12d Monitor ICCAT progress in improving the dispute resolution procedures, if slow progress: EA PS FIP action – PMT monitoring only <ul style="list-style-type: none"> Intersessional discussions with ICCAT CPCs to improve resolution of dispute Advocacy paper to ICCAT plenary session on dispute resolution (P&L FIP partners to sign the Paper) 	PMT	-
	12e Independent review that roles and responsibilities of data transmission to ICCAT is partly understood by relevant CPCs to the UoA (action of the EA PS FIP) – specific review on pole and line fishing if – external analysis of potential weaknesses	Fisheries management specialist (3 days analysis following a field mission on other related IPGs)	-
	12f Assessment whether sanctions to deal with non-compliance to ICCAT rules are effectively deterrent – action of the EA PS FIP – PMT monitoring only	PMT	-
	12g Review to identify major legislative gaps in relevant States to comply with ICCAT CMMs and sanctions (Ghana and coastal States where the vessels operate, note: Benin observer at ICCAT) – action to be	Fisheries legal (MCS) specialist (5d in the	-



Year	Activities	Resources	Approx. cost (EUR)
	carried out through the EA PS FIP – <u>evaluate the needs to carry out a specific review for this UoA – if no, stop here</u>	field including travel – mission carried out to provide any specific additional advice on MCS legislation to monitor the Ghanaian tuna fishery especially the UoA too)	
Year 2	12h Assess effectiveness and efficiency to apply EMS (and AIS: option) as complementary MCS tool to deter IUU fishing – local FIP partners meeting followed by a meeting report, feedback from the civil society by consulting it	PMT Local meeting costs in Ghana (tbd – not significant)	-
	12i (End year 2) An independent review identifies national efforts to comply with ICCAT CMMs (including sanctions) – EA PS FIP action except if specific action required (see 12g)	PMT milestone monitoring	-
	12j (End year 2): roles and responsibilities of data transmission to ICCAT fully understood by, at least, the organisations of the flag State' s vessels and the coastal States where the vessels are active– PMT report only	PMT	-
Year 3	12k Written and robust evidence that the fishery is fully responding to MSC requirements with regards to PI 3.2.3 following the action above - to ensure that it will not be an issue during full assessment – if weaknesses remaining, adapt actions for year 4 and 5 below	Fisheries management specialist (MCS- MSC P3) expert for review and technical support/advice (4 days in the field including travel time)	-
Year 4	12l Follow up and facilitation of a fishery specific compliance strategy if deterrent sanctions not in place (year 3 otherwise)	Tbd (added in the budget as PMT resource for the moment)	-
Year 5	tbd		
TOTAL			-



6.12 Current timeline

It is understood that the current timeline is as follows to launch the FIP before summer 2018 at the latest:

Milestone	Jan. 18	Feb. 18	Mar. 17	April 17	May 18	June 18
Preliminary scoping document	★					
MoU with the Ghana government signed			★			
MSC pre-assessment and update of the scoping document			★			
Draft detailed action plan			★			
Detailed action Plan development (milestone: draft budget agreed)				★		
Presentation of the draft AP to the FIP participants				★		
Review and comment draft AP				★		
Budget for detailed AP agreed				★		
FIP Partnership agreed					★	
Public signing of the FIP Partnership					★	
Webpage and public relations					★	
FIP commenced					★	Latest June 18

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Appendices and annexes

Appendix 1: MSC pre-assessment report

Document provided separately.



