



## Phase 1, Fujian Zhangzhou Red Swimming Crab FIP Work Plan (by MSC PI)

### Project Timeline

Year 1: 2018/08-2018/12

Year 2: 2019/01-2019/12

Year 3: 2020/01-2020/12

Year 4: 2021/01-2021/12

Year 5: 2022/01-2022/12

**NOTE:** FIP and work plan is expected to continue after Year 5 in Phase 2 with full implementation of government management system reforms. A detailed Phase 2 work plan, to be completed within a second 5-year timeframe, will be developed during Year 4.

### FIP Partners

National Fisheries Institute (NFI); China Aquatic Products Processing and Marketing Association (CAPPMA); Ocean Outcomes (O2)

### FIP Implementation Collaborators

Zhangzhou Aquatic Products Processing and Marketing Association (ZAPPMA); Xiamen University (XMU); Fisheries Research Institute of Fujian (FRIF) of the Fujian Provincial Ocean and Fishery Department (FOFD); Dongshan crab processors



## Principle 1: Sustainability of the Stock

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 1: Update of stock status incorporating stakeholder information, PI 1.1.1 (1.1.2)</b> – Stock status uncertain. Initial risk assessment for 1 of 2 pre- assessments indicated possible pass performance but didn't fully assess risks. Stock status and potential need for rebuilding strategy should be assessed.</p> <p>(NOTE: also see related Action Items 2, 3 and 4)</p>		Risk based stock status assessment method is selected or developed.	Risk based stock status assessment is completed to evaluate whether stock is likely fluctuating around a level consistent w/ MSY. If not evaluate potential for existing mgmt. measures to support rebuilding.	Any necessary refinements of existing mgmt. measures are implemented as an interim step to support the potential need to support stock rebuilding (if indicated in Year 3).	First empirical assessment of stock status is completed. Acceptable stock status is verified or, if not, a formal rebuilding plan is developed.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Action Plan
		<p><b>Responsible:</b> O2 facilitates in coordination with FRIF, FOFD, and consultants.</p> <p>Consult w/ provincial managers/scientists, creating design for conducting precautionary risk based assessment to include stakeholder engagement.</p>	<p><b>Responsible:</b> Consultant leads in coordination w/ partners/stakeholders.</p> <p>Conduct risk based assessment. If stock not likely fluctuating around MSY, use Action Item 2 to evaluate mgmt. measure consistency with rebuilding.</p>	<p><b>Responsible:</b> FOFD managers lead with assistance of FRIF scientists.</p> <p>The response, if refined mgmt. measures appear to be needed, will be undertaken through Action Item 2 as an interim step.</p>	<p><b>Responsible:</b> FOFD leads with assistance of FRIF scientists.</p> <p>Evaluate initial estimates of stock abundance and population biological metrics against relevant reference points (MSY or surrogate measures). If rebuilding need is identified/confirmed, plan will be developed to include effective measures, appropriate rebuilding timeframes and monitoring/evaluation.</p>



Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 2: Development of a robust and precautionary harvest strategy, PIs 1.2.1, 1.2.2</b> – No harvest strategy or population status based harvest control rules (HCR) exist for the fishery; limited harvest measures have been in place in form of summer fishing moratorium and soon to be implemented minimum size limit.</p>	<p>Initial monitoring measures are in place capable of supporting the evaluation of mgmt. measure effectiveness. Initial assessment of size, sex and maturity conducted and preliminary recommendations on basic management measures.</p>	<p>Monitoring efforts continued and initial assessment of existing mgmt. measures is completed to gauge their potential effectiveness at supporting a harvest strategy to meet PI 1.1.1 outcome objectives. meeting size, sex and maturity updated and management recommendations refined and advocated to FOFD.</p>	<p>Revised management measures developed by FOFD to support eventual adoption of an overall harvest strategy.</p>	<p>Revised management measures implemented and evaluated for their effectiveness.</p>	<p>Management measure evaluation continued. A plan is developed that will result in design, adoption and implementation of a comprehensive HS with HCRs (subsequent development of HS-HCR to occur during Phase 2).</p>
	<p>Year 1: Action Plan</p>	<p>Year 2: Action Plan</p>	<p>Year 3: Action Plan</p>	<p>Year 4: Action Plan</p>	<p>Year 5: Action Plan</p>
	<p><b>Responsible:</b> XMU researchers lead, assistance from O2, coordination w/ FRIF, CAPPMA, ZAPPMA.</p> <p>Action Item 3 initiates essential efforts to collect catch and biological information, especially size, sex and maturity data to establish size-maturity relationships for male and female crab. Conduct initial analyses of minimum carapace width size regulations or guidance in place. Recommend potential</p>	<p><b>Responsible:</b> XMU researchers lead, assistance from O2, coordination w/ FRIF, CAPPMA, ZAPPMA.</p> <p>Continue analysis of collected catch and biological information to confirm size-maturity relationships for male and female crab. Refine management measure recommendations.</p>	<p><b>Responsible:</b> XMU leads analysis; FOFD managers lead regulatory refinement with FRIF assistance.</p> <p>Evaluation of current mgmt. measures (e.g. minimum carapace width size limits) and regulatory/fishery compliance is completed in light of Years 1 and 2 data (Action Item 3); recommend regulatory measure refinements to FOFD, who discusses with fishermen &amp; processors for</p>	<p><b>Responsible:</b> FOFD and FRIF lead.</p> <p>Implement and evaluate management measure refinements based on biological and compliance data collected.</p>	<p><b>Responsible:</b> FRIF leads in coordination with FOFD managers. Consulting w/ stakeholders on MSE component.</p> <p>Continued evaluation of regulatory management measures based on fishery monitoring and compliance data.</p> <p>A management strategy evaluation (MSE) is designed/planned to evaluate alternative and identify optimal harvest strategy approaches for meeting competing</p>



	management measure refinements.		implementation in Year 4.		management objectives. (MSE and HS-HCR analyses would occur during Phase 2 of the FIP to be completed within the second 5 yrs.).
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Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<b>Action Item 3: Improved biological monitoring and community engagement PI 1.2.3</b> – No catch, effort and biological monitoring data collection systems exist nor are regular fishery independent surveys conducted to estimate population abundance or abundance indices.	Some relevant, key fishery & biological information is collected (for both P1 and P2 species) w/ catch estimation design approach is tested.	Some relevant, key fishery & biological information continues to be collected (for both P1 and P2 species) w/ catch estimation design recommended for mgmt. system. Design for stock abundance surveys is developed.	Mgmt. system design for sufficient collection of relevant, key fishery & biological information for P1 and P2 species is tested, and stock abundance survey design is tested.	Evaluation and refinement of system design for sufficient collection of relevant, key fishery & biological information for P1 and P2 species is completed. Stock abundance surveys are implemented.	Sufficient relevant information is collected from the fishery, including regular stock abundance monitoring and fishery removals, adequate to support a robust harvest strategy.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
	<b>Responsible:</b> XMU researchers lead, assistance from O2, coordination w/ FRIF & processors. O2 leads fishermen outreach.  Design and implement initial catch, effort, biological data collection from dockside landings; evaluate approaches for future mgmt. system application	<b>Responsible:</b> XMU researchers lead, assistance from O2, coordination w/ Fujian Fisheries Research Institute & processors.  Continue collecting catch, effort, & biological data from dockside landings & evaluate/ recommend future mgmt. system approaches to catch estimation.	<b>Responsible:</b> FRIF leads w/ assistance from XMU researchers, processors, fishermen and FOFD managers.  Trial a catch and effort estimation system on fleet wide basis for Fujian province jurisdiction, combined with essential biological data collection.	<b>Responsible:</b> FRIF leads w/ assistance from XMU researchers, processors, fishermen and FOFD managers.  Refine and expand test of catch and effort estimation system on fleet wide basis for Fujian province jurisdiction, combined with essential biological data collection.	<b>Responsible:</b> FRIF leads w/ assistance from XMU researchers, processors, fishermen and FOFD managers.  Fully develop & implement monitoring and data system capacities for catch and effort estimation system on fleet wide basis for Fujian province licensed vessels, combined with essential biological data collection.



	Develop/implement fishermen education, training and outreach program elements to enlist strong support of fishery monitoring and mgmt. measures.	Continue fishermen education, training and outreach Design on-water fishery observation/monitoring plan to evaluate condition and likely mortality of crabs required (also P2 catch composition and non-retention verification).	Compare logbook information with landing based catch & effort data Implement initial on-water fishery observation to evaluate released crab condition and any secondary species non-retention.	Compare logbook information with landing based catch & effort data Continue/expand on-water fishery observation to evaluate released crab condition and any secondary species non-retention.	Evaluate continuing need for on-water monitoring requirements (e.g., catch & regulatory compliance).
			<b>Fishery independent stock abundance monitoring</b>  <b>Responsible:</b> FRIF leads w/ assistance from XMU researchers.  Field surveys completed to support initial test of best fit method for stock abundance estimates/indicators (see Action Item 4, Yr. 2).	<b>Fishery independent stock abundance monitoring</b>  <b>Responsible:</b> FRIF leads w/ assistance from XMU researchers.  Initial stock assessment survey approach evaluated and refined; stock assessment surveys implemented to support stock assessment analyses (Action Item 4).	<b>Fishery independent stock abundance monitoring</b>  <b>Responsible:</b> FRIF leads w/ assistance from XMU researchers.  Stock assessment surveys implemented on periodic schedule consistent w/ supporting harvest strategy-HCR evaluation and stock assessment analyses and (Action Items 2 & 4).

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<b>Action Item 4: Regular and appropriate assessment of stock status PI 1.2.4 –</b>		'Best fit' stock assessment design is developed.	Initial stock assessment approach is evaluated & refined.	Stock assessment design/approach is refined & stock assessment conducted.	Regular stock assessments are being conducted & evaluated as appropriate to evaluate stock status and harvest strategy.



	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Outcome Year 5
No stock assessments are conducted for the fishery and capacity to do so limited by current lack of catch, effort, and biological data as well as independent abundance surveys		<p><b>Responsible:</b> XMU researchers lead, assistance from O2, coordination w/ Fujian Fisheries Research Institute.</p> <p>Complete evaluation of existing fishery and resource studies/data Including Year 1 catch, effort and biological monitoring data Action Item 3); design stock assessment approach to be field tested in Yr. 3.</p>	<p><b>Responsible:</b> FRIF leads w/ assistance from XMU researchers.</p> <p>Evaluate trial test of stock assessment methodology (based on field survey conduct and related data collected under Action Item 3, Year 3) and any appropriate design refinements made - NOTE: design and planned frequency tailored to management strategy and stock status.</p>	<p><b>Responsible:</b> FRIF leads w/ assistance from XMU researchers.</p> <p>Researchers analyze collected fishery and survey data to produce stock assessment report based on actual abundance or abundance/stock status indicators. Initial reference points (MSY or surrogates) developed/proposed.</p>	<p><b>Responsible:</b> FRIF leads w/ assistance from XMU researchers.</p> <p>Researchers analyze collected fishery and survey data to produce stock assessment report based on actual abundance or abundance/stock status indicators. Reference points (MSY or surrogates) refined to support stock status determinations (Action 1, Yr. 5).</p>

## Principle 2: Ecosystem Impacts

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 5: Data collection and evaluation for other species caught, PIs 2.2.1-2.2.3</b> – No catch, effort and biological monitoring data collection</p>	Key P2 species fishery catch and biological information is collected to verify main and minor secondary species in the catch and support evaluation of management for main species (See Action Item 3).	Key P2 species fishery catch and biological information collected is continued to verify main and minor secondary species in the catch and support evaluation of management for main species (See Action Item 3).	<p>Some quantitative information is being collected to assess the fishery's impact on main secondary species.</p> <p>An updated risk based status assessment is completed for relevant P2 species (in conjunction w/ Action Item 1).</p>	Any new or refined mgmt. measures for main secondary species are implemented and evaluated as to their efficacy at maintaining status above potential recruitment impairment (PRI) or not hindering recovery to that level.	Management measure evaluation is continued. A plan is developed that will result in the design, adoption and implementation of an effective partial mgmt. strategy for secondary species.



<p>systems or data exist; main and minor species identification needs verification; a partial mgmt. strategy is needed for main secondary species; and verification may be needed that the fishery is not hindering possible recovery of stock if below biological limits</p>			<p>The need to establish new or refined mgmt. measures for main secondary species (e.g., ridged swimming crab in the pot fishery) is evaluated (including compliance).</p>		
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
	<p><b>Action Item 3</b> - Catch and biological data collection actions (for PI 2.2.3).</p>	<p><b>Action Item 3</b> - Catch and biological data collection actions.</p>	<p><b>Action Item 1</b> – Risk based stock status assessment is completed that includes relevant secondary species.</p> <p><b>Action Item 3</b> - Catch and biological data collection actions.</p> <p><b>Action Item 4</b> <b>Responsible:</b> FOFD and FRIF lead.</p> <p>Reevaluate main secondary species in the fishery based on Year 1 and 2 data, as well as Year 3 on-water observations (Action Item 3). Evaluate results of regulatory compliance, released crab condition and stock status risk assessment update to determine efficacy of existing mgmt. measures – develop any new or refined measures based on the analysis (for PI</p>	<p><b>Action Item 3</b> - Catch and biological data collection continues.</p> <p><b>Action Item 4</b> <b>Responsible:</b> FOFD and FRIF lead.</p> <p>Continue analysis of catch and biological data, and any on-water monitoring, and regulatory compliance, to evaluate efficacy of new or refined mgmt. measures for main secondary species (for PI 2.2.2).</p>	<p><b>Action Item 3</b> - Catch and biological data collection continues.</p> <p><b>Action Item 4</b> <b>Responsible:</b> FOFD and FRIF lead.</p> <p>Based on continued evaluation, a plan for is developed outlining management objectives, monitoring, a harvest strategy and evaluation that will have a high likelihood of maintaining main secondary species above PRI.</p>



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Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 6: Evidence-based evaluation of fishery risk to ETP species, Pls 2.3.1-2.4.3</b> – ETP species as defined by MSC are not believed to be an issue in the fishery; however, there is virtually evidence to verify the conclusion.</p>	Qualitative information is collected about encounters of ETP species in the fishery by gear.	Qualitative information collection is continued about encounters of ETP species in the fishery by gear.	Some quantitative information is collected about encounters of ETP species in the fishery by gear.	Some quantitative data collection is continued about encounters of ETP species in the fishery by gear. A productivity-susceptibility risk assessment for ETP species is designed.	A productivity-susceptibility risk assessment for ETP species is completed, with any necessary mgmt. measures identified for subsequent implementation.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
	<p><b>Action Item 3:</b> Interviews with fishermen, compliance officers and dockside inspection are conducted.</p>	<p><b>Action Item 3:</b> Interviews with fishermen, compliance officers and dockside inspection are continued. An on-water fishery monitoring/observation design is developed.</p>	<p><b>Action Item 3:</b> Interviews with fishermen, compliance officers and dockside inspection are continued. An on-water fishery monitoring/observation design is implemented.</p>	<p><b>Action Item 3:</b> Interviews with fishermen, compliance officers and dockside inspection are continued. An on-water fishery monitoring/ observation design is expanded.</p> <p><b>Responsible:</b> O2 supports FRIF-FOFD-XMU.</p> <p>Consult w/ provincial managers/scientists &amp; create design for precautionary risk based assessment to include stakeholder engagement.</p>	<p><b>Responsible:</b> Consultant leads w/ assistance of O2, FRIF-FOFD.</p> <p>Conduct risk assessment &amp; develop rebuilding measures and approach if warranted.</p>





				Analyze ETP encounter and regulatory compliance information collected under Action Item 3 to inform risk assessment, in addition to addressing PIs 2.3.2 and 2.3.3 performance gaps.	
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Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<b>Action Item 7: Verification of habitat impacts, PIs 2.4.1-2.4.3</b> – The impacts of the fishery on generally high disturbance, sandy bottom habitats are not believed to have significant impact on habitat function. But no supporting evidence exists, e.g. compliance with nearshore habitat closures to protect VME habitats. Lost gear is an identified issue for the pot fishery - related improvement actions are				Distribution of vulnerable marine ecosystem habitats (VMEs) within potential target fishing areas is understood.	A determination is made of whether trawl fishery is unlikely to reduce structure and function of VME habitats. If the fishery is likely to have this impact, additional mgmt. and compliance actions are developed to ensure acceptable habitat outcome.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
				<b>Responsible:</b> XMU leads in coordination w/ FRIF.  Available survey and research data on location of VME habitats is reviewed, documented and mapped, including areas currently closed is analyzed.	<b>Responsible:</b> FOFD and FRIF lead.  Analyze intersect of trawl fleet fishing tracks with distribution of VME habitats using existing VMS capacity and/or on-water observation and compliance efforts.



provided in an independent Lost Gear section below.					
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Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<b>Action Item 8: Evaluation and management of fishery impact on ecosystem function, Pls 2.5.1-2.5.3</b> – Crab and bait species removals are thought to be at acceptable levels, but supporting evidence is limited.				Design and preparation for scale intensity consequence analysis (SICA) for ecosystem impacts is completed.	A determination is made whether the fishery is unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. If the fishery is likely to have these impacts, a plan is developed to avoid this adverse outcome.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
				<b>Responsible:</b> XMU leads in coordination w/ FRIF.  Collate information on crab removals and bait usage in pot fishery based on catch data collection and fishermen interviews. Design structure, content and stakeholder approach for SICA.	<b>Responsible:</b> Consultant leads, SICA. FOFD & FRIF lead response.  Expert and stakeholder workshop conducted to complete SICA and results used to structure ongoing information collection and mgmt. strategy to ensure high probability that fishery operates consistent with maintaining ecosystem function.



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### Principle 3: Management System

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 9: Alignment of fishery management objectives, capacities and processes with sustainability principles, PIs 3.1.1, 3.1.3 &amp; 3.2.1-3.2.4 –</b> The various components of the fishery management system are poorly formed in being able to ensure durable P1 and P2 outcomes. Fishery-specific management plans are lacking, mgmt. controls are</p>				Key elements of a functioning mgmt. system are in place for some portion of the fishery.	Comprehensive process plans exist that will result in the development of key management system features, such as fishery specific management objectives/plans, precautionary decision making processes, research plans and effective compliance.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
				<p><b>Responsible:</b> FOFD and FRIF lead.</p> <p>The provincial government’s mgmt. system reform pilot for a portion of the overall crab fishery is expected to demonstrate consultation, management planning, decision-making and research priority planning to support sustainable</p>	<p><b>Responsible:</b> FOFD and FRIF lead.</p> <p>The provincial government, based on its pilot management reform efforts and results of the FIP, outlines and schedules a process with specific intent and timelines for developing and implementing management system</p>



<p>general, and Decision-making processes do not respond to issues identified in the fishery in a timely or adaptive way. Research does not effectively inform management and little evidence of effective monitoring, control and surveillance exists.</p>				<p>management outcomes for the fishery on a durable basis. This expectation will be verified.</p>	<p>plans and processes over a 3-year period.</p>
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## Additional Improvement Needs: Traceability; Abandoned, Lost or Otherwise Discarded Fishing Gear (ALDFG); Independent Audit

These topics don't easily align with specific MSC performance indicators. Traceability and lost gear are addressed to some extent in pre-assessments but currently have some limits as to how sufficiently they are treated within MSC certification requirements and guidance as relates to sustainability assurance. These are included below as other improvement action categories to help ensure they will be adequately addressed in the fishery improvement process. The full set of actions related to ALDFG would require additional funding beyond that currently budgeted.

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 10: Traceability –</b></p>	<p>Initial sources of traceability risks are identified.</p>	<p>Priority traceability risks are identified and the need/approach for</p>	<p>Initial traceability risk mitigation measures are implemented for highest</p>	<p>Initial traceability risk mitigation measures are evaluated and refined.</p>	<p>Traceability risk mitigation measures are in place with good assurance of</p>



<p>There are believed to be current issues in the fishery with crabs being landed that do not comply with a variety of gear and closed time/area regulations. Additionally there is high potential for crab being imported for processing to Fujian province from other domestic and international areas to meet market demands for export of Chinese red swimming crabmeat, which may include species and/or from other countries.</p>		potential mitigation measures recommended.	priority issues.		managing supply chain uncertainty/significant risk factors.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome.
	<p><b>Responsible:</b> O2 leads in coordination w/ XMU, processors and CAPPMA/ ZAPPMA.</p> <p>Interviews are conducted with processor representatives and observations of processing activities made to develop an initial understanding of crab product flow – domestically and import-export from Fujian province. Compliance with existing regulations and management measures is evaluated from Action 3 data.</p>	<p><b>Responsible:</b> O2 leads in coordination w/ XMU, processors and CAPPMA/ ZAPPMA.</p> <p>Year 1 interviews and regulatory compliance analysis is continued. This information is supplemented by customs data and other market analyses to document specific import-export product flow, price structure and other potential market forces that may influence the mixing of illegal or other fishery/crab species products into the FIP's export supply chains.</p>	<p><b>Responsible:</b> O2 leads/facilitates w/ XMU, processors and CAPPMA/ ZAPPMA, FOFD.</p> <p>Initial measures &amp; verification efforts implemented likely to include in plant processor management actions and accountability coupled with targeted fishery-vessel monitoring.</p>	<p><b>Responsible:</b> O2 leads in coordination w/ XMU, processors and CAPPMA/ ZAPPMA.</p> <p>Measures continued and evaluated to assess traceability outcomes.</p>	<p><b>Responsible:</b> O2 leads in coordination w/ XMU, processors and CAPPMA/ ZAPPMA.</p> <p>Overall traceability plan developed through point of export for FIP products.</p>

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<b>Action Item 11: Lost fishing gear –</b>	Some information on the extent of lost fishing gear is available for the fishery.	A full inventory of lost gear issues as well as any prevention,	A test and evaluation of the highest priority ALDFG solution actions	Implementation actions are expanded in scope to address a full range of	Loss prevention and impact mitigation measures are scaled fleet



<p>Gear loss was identified in the pre-assessment as a recognized issue, particularly for the pot fishery. We are treating it as an integrated cross MSC principle mgmt. problem that needs to be minimized to address local resource impact, cumulative environmental impact and any potential food safety issues related to micro plastics (e.g., buoys).</p>		mitigation and recovery opportunities in the fishery are understood and top priority actions identified.	are implemented.	issues and to a significant proportion of the fleet.	wide for high-risk gear types and a plan is developed that will result in minimizing lost gear in the fishery.
	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Outcome Year 5
	<p><b>Action Item 3:</b> Interviews with fishermen are conducted.</p>	<p><b>Action Item 3:</b> Interviews with fishermen are continued and an on-water fishery monitoring/observation design is developed.</p> <p><b>Responsible:</b> O2 leads in coordination w/ fishing industry, FOFD, and FRIF.</p> <p>At least the top three gear loss, mitigation and/or recovery strategies are designed with motivated fishers and education efforts fully implemented.</p>	<p><b>Action Item 3:</b> An on-water fishery monitoring/observation design is implemented.</p> <p><b>Responsible:</b> FRIF and FOFD lead w/ participation of industry and assistance of O2.</p> <p>A project implementation plan is developed and implemented for priority actions.</p>	<p><b>Action Item 3:</b> An on-water fishery monitoring/observation design is implemented.</p> <p><b>Responsible:</b> FRIF and FOFD lead w/ participation of industry and assistance of O2.</p> <p>An expanded project scope is developed and implemented with a large portion of the involved fleet, and effectiveness of actions is evaluated.</p>	<p><b>Responsible:</b> Fishing industry leads with cooperation from FOFD.</p> <p>A lost gear code of conduct is developed for the fishery with commitment to implement by fishermen associations and leading fishermen.</p>

Issue/ Performance indicators	Year 1: Performance Goal	Year 2: Performance Goal	Year 3: Performance Goal	Year 4: Performance Goal	Year 5: Outcome
<p><b>Action Item 12: FIP quality assurance -</b></p>	<p>Appropriate FIP monitoring, accountability and adaptive management measures are in place to help ensure effective implementation and outcomes.</p>	<p>Appropriate FIP monitoring, accountability and adaptive management measures are in place to help ensure effective implementation and outcomes.</p>	<p>Appropriate FIP monitoring, accountability and adaptive management measures are in place to help ensure effective implementation and outcomes.</p>	<p>Appropriate FIP monitoring, accountability and adaptive management measures are in place to help ensure effective implementation and outcomes.</p>	<p>Appropriate FIP monitoring, accountability and adaptive management measures are in place to help ensure effective implementation and outcomes.</p>



	Year 1: Action Plan	Year 2: Action Plan	Year 3: Action Plan	Year 4: Action Plan	Year 5: Outcome
	<p><b>Responsible:</b> O2 leads in close coordination with FIP partners.</p> <p>Regular tracking and reporting updates are completed.</p> <p>Annual workshop is held with key stakeholders, providing review and adaptive modifications to the FIP work plan.</p>	<p><b>Responsible:</b> O2 leads in close coordination with FIP partners.</p> <p>Regular tracking and reporting updates are completed.</p> <p>Annual workshop is held with key stakeholders, providing review and adaptive modifications to the FIP work plan.</p>	<p><b>Responsible:</b> O2 leads in close coordination with FIP partners.</p> <p>Regular tracking and reporting updates are completed.</p> <p>Annual workshop is held with key stakeholders, providing review and adaptive modifications to the FIP work plan.</p>	<p><b>Responsible:</b> O2 leads in close coordination with FIP partners.</p> <p>Regular tracking and reporting updates are completed.</p> <p>Annual workshop is held with key stakeholders, providing review and adaptive modifications to the FIP work plan. FIP progress to date and updates of previous pre-assessments verified via an independent audit.</p>	<p><b>Responsible:</b> O2 leads in close coordination with FIP partners.</p> <p>Regular tracking and reporting updates are completed.</p> <p>Annual workshop is held with key stakeholders, providing review and adaptive modifications to the FIP work plan.</p> <p>A Phase 2 work plan will be developed that is expected to enable the fishery to completely meet performance requirements of an unconditional pass of the MSC standard within another five years or less.</p>