

Work plan for the improvement of Mexico Gulf of California Sinaloa chocolate clam and chirla clam - diving & hand gathered Fishery Improvement Project (FIP) Work plan

Introduction

The tasks shown in this document are derived from the work plan of the Chocolata Clam FIP and are adapted to address the challenges of a multi-specific Clam fishery (Chocolata and Chirla) FIP. This new work plan focuses on meeting the performance indicators (PI) of Principle 1, related to knowing the status of both resources and generating a harvest strategy that meets the requirements of the MSC standard. In addition, it is intended to generate the necessary information to know the impacts of the fishery on habitats and the ecosystem, as well as the associated ETP species. Similarly, it seeks to cover aspects related to governance, regulations, and the specific management system, such as the implementation of the Ecosystem Management Plan, which includes both species of clams, the design of an official norm and the establishment of a community-based surveillance system.

Table 1: Work Plan Overview

Work plan Version and Date	November 2024
Start date (expected)	End date (anticipated month/year)
January 2019	December 2025
FIP Lead (organization/individual responsible for Action Plan)	Improvements recommended by (meeting/group that supported the development)
EDF & PNO	Fishing sector, IMIPAS, EDF, PNO
FIP Coordinator (organization/individual responsible for reporting on FisheryProgress)	Work Plan developed by (consultant or person)

EDF & PNO	EDF & PNO
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Acronyms

PNO	Pronatura noroeste
EDF	Environmental Defense Fund de México
ISAPESCA	Instituto Sinaloense de Acuacultura y Pesca
CONAPESCA	Comisión Nacional para la Pesca y Acuicultura
IMPAS	Instituto Mexicano de Investigación Pesquera y Acuícola Sustentable

Unit of Assessment(s)

Fill in the following table, which will be considered the scope against which the fishery is assessed against the MSC Fisheries Standard.

Table 2. Unit(s) of Assessment (UoA)

UoA 1	Description
Target species (common and scientific name)	Chocolate Clam (<i>Megapitaria squalida</i>) and Chirla Clam (<i>Chione californiensis</i>)
Stock	
Geographical area	Area 77 (Pacific, Eastern Central)
Fishing method or gear type	Diver-Caught Hand Gathered
Fishing fleet or group of vessels, or individuals fishing operators pursuing stock	

FIP Actions

Table 3. Performance Indicator Action Plan Table for Action 1. Implement a fishing ban for the Chocolate Clam as a mechanism to minimize fishing mortality and protect the reproductive stock of the species

Action Number and Name (One sentence description)	1. Implement a fishing ban for the Chocolate Clam as a mechanism to control effort and protect the reproductive period (COMPLETED)
Action Goal (One sentence that describe the result of the action)	Make sure the rebuilding plan designed address the actual state of this fishery
Action Description	Stakeholders decided to request a formal stock assessment to federal authorities to know the current shape of the stock and design a rebuilding plan that addresses identified issues. In parallel, they requested a temporary fishing ban to help the stock recover from intensive fishing pressure.
Expected Completion Date	December 2022
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	High
Estimated Cost (An estimate of the budget needed to complete the action)	\$0 USD
Responsible Parties (List of participants)	Cooperatives fishery, IMIPAS, EDF, PNO
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	1.1.1 Stock status outcome

Table 4. Performance Indicator Action Plan Table for Action 2. Verify whether the populations of Almeja Chocolate and Almeja Chirla are found or oscillate around a point consistent with the Maximum Sustainable Yield (MRS).

<p>Action Number and Name (One sentence description)</p>	<p>2. Verify whether the populations of Almeja Chocolate and Almeja Chirla are found or oscillate around a point consistent with the Maximum Sustainable Yield (MRS). (COMPLETED)</p>
<p>Action Goal (One sentence that describe the result of the action)</p>	<p>Know if actual catches correspond to sustainable levels</p>
<p>Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)</p>	<p>Stakeholders requested a formal stock assessment to know current status of the stock.They also requested a genetic study to get more certainty regarding connectivity within and outside the lagoon system in terms of the Chocolate clam populations and recruitment dynamics.</p>
<p>Expected Completion Date</p>	<p>December 2023</p>
<p>Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)</p>	<p>High</p>
<p>Estimated Cost (An estimate of the budget needed to complete the action)</p>	<p>\$20,606 USD</p>
<p>Responsible Parties (List of participants)</p>	<p>EDF, IMIPAS, CONAPESCA, FEDERACIONES PESQUERAS</p>
<p>MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)</p>	<p>1.1.1 Population status</p>

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
2. Verify whether the populations of Almeja Chocolata and Almeja Chirla are found or oscillate around a point consistent with the Maximum Sustainable Yield (MRS).	2.1. Prepare a Technical Opinion on the status of both resources	IMIPAS EDF	IMIPAS	January 2023	December 2023	Technical opinion on the status of both resources at the request of the interested parties
	2.2. Perform a genetic study on the chocolata clam population	IMIPAS	EDF	July 2019	June 2023	Evidence for the study of population genetics

Table 5. Performance Indicator Action Plan Table for Action 3. Design and implement a recovery strategy, if necessary, for the Chocolata Clam population

Action Number and Name (One sentence description)	3. REMOVED Design and implement a recovery strategy, if necessary, for the Chocolata Clam population (THIS ACTION HAS BEEN MERGED WITH ACTION 4 FOR COHERENCE WITHIN THE WP)
Action Goal (One sentence that describe the result of the action)	Design a strategy that helps rebuild the local population of chocolata clams
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	One of the first actions taken by the Altata community was to protect certain areas considered very productive or with potential for conservation. However, given the extent of the fishing areas, this action may not be enough to achieve tangible rebuilding outcomes; therefore, fishing closures, size limits and implementation of more NTZ's are also being considered as additional tools to boost local clam populations.
Expected Completion Date	December 2025 REMOVED
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	High

Estimated Cost (An estimate of the budget needed to complete the action)	\$5,000 USD
Responsible Parties (List of participants)	IMIPAS, ISAPESCA
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	1.1.2 Population recovery

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
3. Design and implement a recovery strategy, if necessary, for the Chocolata Clam population	3.1. Design a resource recovery plan and participatory identification of potential protection zones	IMIPAS, FISHING SECTOR	IMIPAS, FISHING SECTOR	January 2023	June 2024	Evidence of the recovery plan design process and identified potential protection areas
	3.2. Review and endorse resource recovery plan and identification of potential protection zones	IMIPAS, FISHING SECTOR	IMIPAS, FISHING SECTOR	July 2024	December 2024	Evidence of recovery plan review
	3.3. Implement and verify compliance with the resource recovery plan	IMIPAS, FISHING SECTOR	IMIPAS, FISHING SECTOR	January 2025	December 2024	Final document of the plan and evidence of its implementation

	3.4. Request correction of refuge zone coordinates and creation of a buffer zone	ISAPESCA, CONAPESCA, IMIPAS, FISHING SECTOR	IMIPAS, FISHING SECTOR	January 2019	June 2019	Refuge zone with corrected coordinates and with buffer zone implemented
	3.5. Request baseline and buffer zone of the fishing refuge zone	ISAPESCA, CONAPESCA, IMIPAS, FISHING SECTOR	IMIPAS, FISHING SECTOR	January 2019	June 2019	Request received
	3.6. Monitor the implementation of the Refuge Zone	FEDERACIONES, IMIPAS, ISAPESCA, EDF, FISHING SECTOR	IMIPAS, FISHING SECTOR	January 2020	April 2023	Evidence of the implementation of the refuge zone

Table 6. Performance Indicator Action Plan Table for Action 4. Design the exploitation strategy

Action Number and Name (One sentence description)	4. Develop a harvest strategy that includes a recovery strategy for the chocolata population
Action Goal (One sentence that describe the result of the action)	Develop an exploitation/recovery strategy that meets current and future environmental, economic and social goals.
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Even though the FMP establishes a general exploitation and management strategy for these fisheries, it is evident that they fall short in the face of local context and challenges. This action seeks to establish a comprehensive harvest strategy that takes into account the current state of both stocks, the lack of HCR's, the need for a rebuilding strategy (chocolate clam) and quota allocation.
Expected Completion Date	December 2025
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	High

Estimated Cost (An estimate of the budget needed to complete the action)	5,000 USD
Responsible Parties (List of participants)	IMIPAS PNO EDF FISHING SECTOR
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	1.2.1 Harvest strategy, 1.2.2 HCR's and tools and 1.1.2 Sustainable fish stocks

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
4. Develop a harvest strategy	4.1 Generate an updated proposal of harvest strategy that includes HCR's and a recovery strategy for the chocolata clam	EDF IMIPAS	IMIPAS EDF FISHING SECTOR	June 2023	March 2025	A draft of the harvest strategy

	4.2 Socialize the proposal among relevant stakeholders	EDF PNO	EDF PNO	January 2025	December 2025	Workshop/meeting minutes
	4.3 Propose the integration of the harvest strategy in a normative document	EDF	IMIPAS PNO Fishers	April 2025	December 2025	Draft of the normative document containing the updated exploitation strategy

Table 7. Performance Indicator Action Plan Table for Action 5. Design the harvest strategy evaluation mechanism

Action Number and Name (One sentence description)	5. Design the harvest strategy evaluation mechanism (ACTION REMOVED)
Action Goal (One sentence that describe the result of the action)	The result of this action is to design a periodic review of the effectiveness and feasibility of the harvest strategy
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Based on the harvest strategy proposed, a mechanism to evaluate the harvest strategy itself will be drafted and then gather feedback from the FIP stakeholders to strengthen the design of this mechanism.
Expected Completion Date	December 2025. REMOVED

Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Low
Estimated Cost (An estimate of the budget needed to complete the action)	\$2,000USD
Responsible Parties (List of participants)	PNO, EDF, Fishing sector
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	1.2.1 Harvest strategy

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
5. Design the harvest strategy evaluation mechanism	5.1 Draft a proposal of the mechanisms to evaluate the effectiveness and feasibility of harvest strategy	PNO - EDF	PNO EDF	April 2024	April 2025	Document proposal for the harvest strategy evaluation mechanism
	5.2 Convene a meeting with all relevant authorities to present the proposal and generate a road map	EDF	Fishing sector PNO	April 2025	December 2025	Meeting minutes

	for its implementation.					
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Table 8. Performance Indicator Action Plan Table for Action 6. Design a control rule and tools that can keep the stock around or above its reference points.

Action Number and Name (One sentence description)	6. Design a control rule and tools that can keep the stock around or above its reference points.
Action Goal (One sentence that describe the result of the action)	Design a set of HCR's appropriate for this fishery
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Given the very social nature of this fishery and its complexities, a very participatory process is being planned to design the HCR's, which should achieve not only rebuilding benefits but also social benefits
Expected Completion Date	December 2024
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Medium
Estimated Cost (An estimate of the budget needed to complete the action)	\$2,308 USD
Responsible Parties (List of participants)	

<p>MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)</p>	<p>PI 1.2.2 Control rules and exploitation tools</p>
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Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
<p>6. Design a control rule and tools that can keep the stock around or above its reference points.</p>	<p>6.1. Identify control rule options and associated tools that are appropriate for the resource.</p>	<p>IMIPAS</p>	<p>IMIPAS</p>	<p>January 2023</p>	<p>December 2024</p>	<p>Evidence of the preparation process and technical document</p>
	<p>6.2. Socialize the concept of control rule, its tools and the identified alternatives.</p>	<p>IMIPAS</p>	<p>IMIPAS/PNO</p>	<p>January 2022</p>	<p>June 2024</p>	<p>Evidence of the workshop(s) held</p>

Table 9. Performance Indicator Action Plan Table for Action 7. Define the control rule application mechanisms

<p>Action Number and Name (One sentence description)</p>	<p>7. Define the control rule application mechanisms</p>
<p>Action Goal (One sentence that describe the result of the action)</p>	<p>Find the right mechanisms to implement HCR designed specifically for this fishery</p>

<p>Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)</p>	<p>A series of workshops will be convened to explain and discuss different options in terms of HCR's that may be appropriate for this fishery. Also, authorities will explain the mechanisms to implement such tools and adapt the current regulatory framework to the new fishing dynamic.</p>
<p>Expected Completion Date</p>	<p>December 2025</p>
<p>Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)</p>	<p>Medium</p>
<p>Estimated Cost (An estimate of the budget needed to complete the action)</p>	<p>\$1,000 USD</p>
<p>Responsible Parties (List of participants)</p>	<p>CONAPESCA EDF IMPAS</p>
<p>MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)</p>	<p>PI 1.2.2 Control rules and exploitation tools</p>

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results

7. Define the application mechanisms of the control rule	7.1. Elaborate the mechanisms of application of the control rule	CONAPESCA	CONAPESCA EDF IMIPAS PNO	January 2024	December 2025	Evidence of the process of elaboration of the application mechanisms and final document
	7.2. Publish an official norm for both clam species	PNO EDF	CONAPESCA	January 2025	December 2025	NOM Draft

Table 10. Performance Indicator Action Plan Table for Action 8. Design a standardized monitoring program with trained monitors and generate sufficient information regarding fishing activities to support the harvest strategy.

Action Number and Name (One sentence description)	8. Design a standardized monitoring program with trained monitors and generate sufficient information regarding fishing activities to support the exploitation strategy.
Action Goal (One sentence that describe the result of the action)	Generate all fishery-dependent data to manage the fishery
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Given the manual collection of the chocolata clam we do not anticipate a substantial impact on the ecosystem or even the associated species, however, the lack of quantitative data to support this idea negatively impacts its performance in terms of sustainability. As a response to this situation stakeholders have decided to implement a robust data collection process, where local fishermen will be trained to collect fishery dependent data, which in turn will complement IMIPAS's information regarding the fishery
Expected Completion Date	June 2025
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	High
Estimated Cost (An estimate of the budget needed to complete the action)	\$2,257 USD

Responsible Parties (List of participants)	
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 1.2.3 Information and monitoring PI 2.3.3 Species information ETP 1.1.1 Population status

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
8. Design a standardized monitoring program with trained monitors and generate sufficient information regarding fishing activities to support the exploitation strategy.	8.1. Review existing information and determine information needs	EDF, IMIPAS	IMIPAS, FISHING SECTOR, ISAPESCA, DPS	June 2019	August 2019	Standardized log format for capturing the information generated in the chocolate clam fishery
	8.2. Continue the collaboration between IMIPAS and EDF to reinforce the registration of additional data on length and weight	EDF, IMIPAS	EDF, FISHING SECTOR, ISAPESCA, DPS	July 2019	March 2022	Evidence of systematic registration (logs filled out correctly and consistently)
	8.3. Train fishing monitors for histological sampling and capturing information in logs	EDF, IMIPAS	EDF, FISHING SECTOR, ISAPESCA, DPS, FACIMAR/UAS	July 2019	December 2019	Evidence of training

	8.4. Perform histological monitoring	EDF, IMIPAS	IMIPAS, FISHING SECTOR, ISAPESCA, DPS	August 2021	September 2023	Sampling database
	8.5. Perform histological analysis	EDF, IMIPAS	IMIPAS, FISHING SECTOR, ISAPESCA, DPS, FACIMAR/UAS	July 2020	September 2023	Analysis report
	8.9. Capture information on the possible ETP species of their extraction in the chocolata clam and chirla clam fishery	IMIPAS	IMIPAS	January 2024	December 2024	Standardized log format for capturing the information generated in the chocolate clam and chirla clam fishery on ETP species and information captured in the database
	8.10. Collect the relevant information to determine the status of the stocks of both species, such as catch, effort, size, weight, density, among others.	EDF, IMIPAS	IMIPAS, CONAPESCA, EDF, FISHING SECTOR, ISAPESCA, DPS	May 2022	June 2025	Database updated annually.

Table 11. Performance Indicator Action Plan Table for Action 9. Establish the method of evaluation of the population of Almeja Chocolata and Almeja Chirla

Action Number and Name (One sentence description)	9. Establish the method of evaluation of the population of Almeja Chocolata and Almeja Chirla
Action Goal (One sentence that describe the result of the action)	Through a science-driven process stakeholders will find the best method to assess chocolata clam populations
Action Description	Along with the genetic studies and data collected by IMIPAS, a series of stakeholder meetings should be held to discuss the findings and evaluate potential changes to current estimations. The goal is to find an assessment method that fits to the clam populations in this lagoon system.

(Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	
Expected Completion Date	July 2024
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Medium
Estimated Cost (An estimate of the budget needed to complete the action)	\$0 USD
Responsible Parties (List of participants)	ISAPESCA, Academia, CONAPESCA, IMIPAS, EDF
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 1.2.4 Stock Status Assessment

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
9. Establish the method of evaluation of the population of Almeja Chicolata and Almeja Chirla	9.1. Conduct workshops to review the assessment of the chocolate clam and chirla clam populations, based on the technical opinion of task 2.1.,	IMIPAS	IMIPAS, EDF, CONAPESCA, PNO, ISAPESCA, IPN	January 2024	Dec 2024	Minutes of the workshops and report on observations made by peers about the evaluation

	to collect peer observations on the assessments of both resources					
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Table 12. Performance Indicator Action Plan Table for Action 10. Establish a mechanism to review the results of the status of the population of Almeja Chocolata and Almeja Chirla

Action Number and Name (One sentence description)	10. Establish a mechanism to review the results of the status of the population of Almeja Chocolata and Almeja Chirla
Action Goal (One sentence that describe the result of the action)	Fishery will have a mechanism to evaluate its assessment methods and outcomes
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Stakeholders decided to request a formal stock assessment to federal authorities to know the current shape of the stock and design a rebuilding plan that addresses identified issues. In parallel, they requested a temporary fishing ban to help the stock recover from intensive fishing pressure.
Expected Completion Date	June 2025
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Medium
Estimated Cost (An estimate of the budget needed to complete the action)	\$3,000 USD
Responsible Parties (List of participants)	IMIPAS
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action	PI 1.2.4 Stock Status Assessment

is likely to result in an improved score change for these performance indicators)	
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Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
10. Establish a mechanism to review the status of the population of Almeja Chocolata and Almeja Chirla	10.1. Publish in an arbitrated way the evaluation of the population of the chocolate clam and the clam clam	IMIPAS	IMIPAS	January 2025	June 2025	Draft of peer -reviewed article

Table 13. Performance Indicator Action Plan Table for Action 11. Assess the impact of the Chocolata Clam and Chirla Clam fishery on the ETP species

Action Number and Name (One sentence description)	11. Assess the impact of the Chocolata Clam and Chirla Clam fishery on the ETP species
Action Goal (One sentence that describe the result of the action)	Assess the impact of the Chocolata Clam and Chirla Clam fishery on the ETP species
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Given the low probability of interaction with ETP species, this action will not be addressed for now
Expected Completion Date	June 2024
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Low

Estimated Cost (An estimate of the budget needed to complete the action)	\$1,812 USD
Responsible Parties (List of participants)	IMIPAS, EDF
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 2.3.1 Status of ETP species

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
11. Assess the impact of the Chocolata Clam and Chirla Clam fishery on the ETP species	11.1. Carry out the analysis of the evaluation of the interaction of the fishing of both species with ETP species, based on the information captured in the information and monitoring system	IMIPAS	IMIPAS, EDF	July 2022	June 2024	Report on the evaluation of the interaction of the fishing of both species with ETP species

Table 14. Performance Indicator Action Plan Table for Action 12. Assess the impact of the clam fisheries on its habitats and the ecosystem, ensuring it does not negatively impact them.

Action Number and Name (One sentence description)	12. Assess the impact of the clam fisheries on its habitats and the ecosystem, ensuring it does not negatively impact them. (REMOVED)
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Action Goal (One sentence that describe the result of the action)	Understand the impacts on habitats and ecosystem that this fishery is causing
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	Even though the nature of these fisheries is known to be very respectful of the environment (hand gathered clams) it is necessary to demonstrate it in a formal way. A desktop analysis will be undertaken in order to document all potential habitat/ecosystem impacts and available best practices to minimize any impacts deemed as negative.
Expected Completion Date	December 2024. REMOVED
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Low
Estimated Cost (An estimate of the budget needed to complete the action)	\$5,000 USD
Responsible Parties (List of participants)	EDF PNO ACADEMY
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 2.4.1 Habitat outcome PI 2.5.1 Ecosystem outcome

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results

12. Assess the impact of the clam fishery on its habitats and the ecosystem, ensuring it does not negatively impact them	12.1 Conduct a review of the impact of the chocolata clam and chirla clam fishery on habitats and ecosystem	PNO EDF Academy	PNO EDF Academy	January 2025	December 2025	Report of findings. (i.e. Habitat and ecosystem review)
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Table 15. Performance Indicator Action Plan Table for Action 13. Generate the nature and spatial distribution of habitats and the ecosystem, and determine their vulnerability with respect to the Clams fishery, based on adequate information

Action Number and Name (One sentence description)	13. Generate the nature and spatial distribution of habitats and the ecosystem, and determine their vulnerability with respect to the Clam fisheries and Climate Change
Action Goal (One sentence that describe the result of the action)	Document the spatial nature of habitats and ecosystem, and assess fishery's vulnerability to climate change.
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	This action is focused on identifying the impacts on the ecosystem caused by the fishery itself and, potentially, Climate Change.
Expected Completion Date	December 2024
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Low
Estimated Cost (An estimate of the budget needed to complete the action)	\$1,000 USD
Responsible Parties (List of participants)	EDF, IMIPAS, ISAPESCA
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action	PI 2.5.3 Ecosystem information

is likely to result in an improved score change for these performance indicators)	
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Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
13. Generate the nature and spatial distribution of habitats and the ecosystem, and determine their vulnerability with respect to the Chocolata Clam fishery, based on adequate information	13.1 Identify potential impacts on the ecosystem derived from climate change as a mechanism to inform adaptation/mitigation strategies.	IMIPAS	EDF ISAPESCA PNO	January 2023	December 2024	Report to FIP working group and/or minutes of advisory committee discussions.

Table 16. Performance Indicator Action Plan Table for Action 14. Demonstrate that a system of consultation, assignment of roles and responsibilities is in operation

Action Number and Name (One sentence description)	14. Demonstrate that a system of consultation, assignment of roles and responsibilities is in operation
Action Goal (One sentence that describe the result of the action)	Ensure that there is consultative body that addresses, at a local scale, issues related to the bivalve's fisheries
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	The pre-assessment found that the assessment team was not able to verify that the consultation process at the management system level regularly seeks and accepts relevant information pertaining to local knowledge or that it includes consideration of consultation processes at the fishery-specific management systems. Therefore, this action seeks to demonstrate there is a consultative body that allows all stakeholders to participate effectively and make timely decisions regarding management of these fisheries.
Expected Completion Date	December 2025

Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Low
Estimated Cost (An estimate of the budget needed to complete the action)	\$1,000USD
Responsible Parties (List of participants)	EDF, CONAPESCA
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 3.1.2 Consultation, roles & responsibilities

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
14. Demonstrate that a system of consultation, assignment of roles and responsibilities is in operation	14.1 Gather all relevant information regarding consultation process at the management system level	EDF	EDF CONAPESCA	January 2025	December2025	Consultation process evidence profile and rationale of consultations process is in place

Table 17. Performance Indicator Action Plan Table for Action 15. Formalize management objectives of the Chocolata Clam and Chirla Clam fishery

<p>Action Number and Name (One sentence description)</p>	<p>15. Formalize the objectives of the Chocolata Clam and Chirla Clam fishery</p>
<p>Action Goal (One sentence that describe the result of the action)</p>	<p>Endorse the objectives of the Clam Chocolata and Chirla Clam Fishing Management Plan</p>
<p>Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)</p>	<p>The 2017 Draft of the Altata-Pabellones FMP states clear short and long-term objectives that are consistent with achieving the outcomes expressed by MSC’s Principles 1 a 2. However, as this FMP is still a draft, which as of the date of the onsite, had not been formalized and implemented, these objectives cannot be considered to be explicitly within the fishery management system, thus the SG80 is not achieved.</p>
<p>Expected Completion Date</p>	<p>December 2025</p>
<p>Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)</p>	<p>Medium</p>
<p>Estimated Cost (An estimate of the budget needed to complete the action)</p>	<p>\$7,000 USD</p>
<p>Responsible Parties (List of participants)</p>	<p>EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, fishing sector</p>
<p>MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)</p>	<p>PI 3.1.2 Consultation, roles & responsibilities 3.2.1 Fishery-specific objectives</p>

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
15. Formalize the objectives of the Chocolate Clam and Chirla Clam fishery	15.1. Follow up on the publication of a standard for mollusks that includes the chocolate clam and the chirla clam fisheries	EDF	EDF, PNO, IMIPAS, CONAPESCA, ISAPESCA, FISHING SECTOR	January 2023	December 2024	Evidence of management
	15.2. Promote the publication of the Fisheries Management Plan	EDF	PNO, EDF, ISAPESCA, FISHING SECTOR	August 2019	July 2021	Evidence in the management for the publication of the Fisheries Management Plan
	15.3. Endorse the Fishery Management Plan by the participants in the FIP	EDF	FIP WORKING GROUP	January 2019	December 2019	Minutes signed
	15.4. Implement the Fisheries Management Plan in relation to bivalves	EDF	PARTICIPANTS IN THE FIP	January 2019	December 2025	Evidence of its implementation
	ABANDONED 15.5. Support the fisheries management of the Altata region	EDF	CONAPESCA	January 2025	December 2025	Evidence of support for fisheries management in the region

Table 18. Performance Indicator Action Plan Table for Action 16. Establish a solid, transparent and permanent decision-making process in the Chocolate Clam and Chirla Clam fishery

Action Number and Name (One sentence description)	16. Establish a solid, transparent, and permanent decision-making process in the Chocolate Clam and Chirla Clam fishery
Action Goal (One sentence that describe the result of the action)	Create a consultative body that addresses, at a local scale, issues related to the chocolata fishery
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	The pre-assessment explains there are examples where the formal decision-making process has not responded in a timely and adaptive manner. The absence of recognition by the official management agencies of the self-imposed moratorium seems to indicate a lack of the decision-making process to act in a timely and adaptive manner as required by SI b at the SG80 level. Because of the lack of a decision-making process that responds to serious issues on an adaptive and timely manner (SI b) and weaknesses in transparency in available information (SI d) on the performance of the fishery the SG80 is not reached.
Expected Completion Date	September 2024
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Medium
Estimated Cost (An estimate of the budget needed to complete the action)	\$2,436 USD
Responsible Parties (List of participants)	EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, SECTOR PESQUERO
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 3.2.2 Decision-making process

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
16. Establish a solid, transparent and permanent decision-making process in the Chicolta and Chirla Clam fishery	16.1. Promote the establishment of the fisheries management advisory committee	CONAPESCA	EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, SECTOR PESQUERO	January 2020	December 2021	Application for the officialization of the advisory committee
	16.2. Prepare the operating regulations of the fishing management consultative committee	CONAPESCA	EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, SECTOR PESQUERO	January 2022	September 2024	Operative rulebook for the committee

Table 19. Performance Indicator Action Plan Table for Action 17. Develop and implement an efficient and transparent compliance program for the Chicolata Clam and Chirla Clam fishery.

Action Number and Name (One sentence description)	17. Develop and implement an efficient and transparent compliance program for the Chicolata Clam and Chirla Clam fishery.
Action Goal (One sentence that describe the result of the action)	Implement a monitoring, control and surveillance system
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	The pre-assessment describes for the chocolate clam fishery there is no evidence of implementation of a monitoring, control, and surveillance system, as required by SI a at the SG80 level. There appear to be frequent cases of misreporting in the completion of the landing tickets (aviso de arribo), which are an important data input for the management of the fishery (SI c at the SG80 level), this could be a potential incidence of systemic non-compliance (SI d at the SG80 level). There is no system in place to verify that the information accounted for in the landing tickets is accurate nor is there any evidence of sanctions applied to deal with this potential non-compliance, as required by SI b at the SG80 level. Moreover, the participants of the onsite meeting agreed that unregulated fishing is an important problem in the fishery.

Expected Completion Date	December 2025
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Medium
Estimated Cost (An estimate of the budget needed to complete the action)	\$5,368 USD
Responsible Parties (List of participants)	EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, SECTOR PESQUERO
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 3.2.3 Compliance and enforcement

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
17. Develop and implement an efficient and transparent compliance program for the Chocolate Clam and Chirla Clam fishery.	17.1. Incorporate municipal governments and CONAPESCA in the FIP	CONAPESCA	EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, SECTOR PESQUERO	January 2019	December 2019	Official letter of invitation
	17.3. Propose and implement a community policing program	CONAPESCA	EDF, ALTATA-NATURA, CONAPESCA	January 2022	December 2023	Community surveillance program

17.4. Carry out an awareness campaign aimed at marketers, restaurant owners, car drivers, tourism, and fishing cooperatives	CONAPESCA	PNO, EDF, FISHING SECTOR, ALTATA-NATURA, DPS	October 2019	December 2021	Minutes and evidence of dissemination
17.5. Ask the authorities for support in inspection and surveillance	CONAPESCA	PNO, EDF, FISHING SECTOR, ALTATA-NATURA, DPS	March 2019	February 2020	Request for support
17.6. Make a feasibility proposal for the installation of a remote surveillance system	CONAPESCA	ALTATA-NATURA, CONAPESCA, DPS	January 2020	June 2020	Feasibility proposal
17.7. Carry out awareness workshops on current regulations aimed at fishermen	CONAPESCA	PARTICIPANTS IN THE FIP	August 2022	July 2023	Evidence of the completion of the workshops in February, May and August.
17.8. Within the framework of the fishery management subcommittee, enter into agreements to make regulations effective, applying the corresponding sanctions when necessary, and maintain a record of the performance of these activities.	CONAPESCA	PARTICIPANTS IN THE FIP	January 2023	December 2025	Minutes of the agreements signed

Table 20. Performance Indicator Action Plan Table for Action 18. Establish a mechanism to evaluate the specific management system for the Chocolata Clam and Chirla Clam fishery.

Action Number and Name (One sentence description)	18. Establish a mechanism to evaluate the specific management system for the Chocolata Clam and Chirla Clam fishery. REMOVED
Action Goal (One sentence that describe the result of the action)	Achieve to have in place a formal mechanism to periodically evaluate the Chocolata clam fishery management system
Action Description (Brief summary of the steps involved in the action and importance of the action in achieving the FIP objectives)	The pre-assessment explains there are examples where the formal decision-making process has not responded in a timely and adaptive manner. The absence of recognition by the official management agencies of the self-imposed moratorium seems to indicate a lack of the decision-making process to act in a timely and adaptive manner as required by SI b at the SG80 level. Because of the lack of a decision-making process that responds to serious issues in an adaptive and timely manner (SI b) and weaknesses in transparency in available information (SI d) on the performance of the fishery the SG80 is not reached.
Expected Completion Date	December 2025. REMOVED
Priority (Based on the implementers criteria: e.g., lowest scoring issues are high priority or actions that are necessary to complete before beginning other actions are high priority)	Medium
Estimated Cost (An estimate of the budget needed to complete the action)	\$2,436 USD
Responsible Parties (List of participants)	EDF, PNO, IMPAS, CONAPESCA, ISAPESCA, FISHING SECTOR
MSC Performance Indicator(s) Addressed by the Action (The MSC performance indicator(s) that are directly impacted by the action. The completion of the action is likely to result in an improved score change for these performance indicators)	PI 3.2.4 Assessment of the fishery-specific management system

Action	Tasks/ Milestones	Responsible (lead)	Responsible (supporting role)	Starting date	Expected completion date	Evidence of completion / results
18. Establish a mechanism to evaluate the specific management system for the Chocolata Clam and Chirla Clam fishery.	18.1. Hold a biannual meeting of the FIP working group to review the functioning of the FIP and an annual meeting to evaluate the chocolate clam fishery management system.	EDF	EDF, PNO, IMIPAS, CONAPESCA, ISAPESCA, FISHING SECTOR	November 2019	December 2025	Six-monthly FIP evaluation report and annual FIP evaluation report and evaluation of the fishery management system
	18.2. Carry out the evaluation of the fishery management system	EDF	IMIPAS, ISAPESCA, FEDERATIONS, EDF	January 2025	December 2025	Report on the results of the evaluation of the management system

Additional Impacts

Some FIPs include objectives that go beyond the MSC PIs. Please provide additional detail below on additional impacts that FIP stakeholders are working to address.

Market improvements	Generate incentives for the fishers
Status Summary	
Improvement Recommendation	<p>21. Make market improvements</p> <p>21.1. Design and carry out pride and responsible consumption campaigns (festival)</p> <p>21.2. Identify business partners</p>

	<p>21.3. Evaluate the feasibility of implementing a traceability system</p> <p>21.4. Develop recognition incentives for good performance and compliance within the FIP process for members and representatives of the FIP</p>
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Social impacts	Generate pride and awareness
Status Summary	
Improvement Recommendation	<p>22. Raise awareness in the community and society about the responsible consumption of chocolate clams</p> <p>22.1. Inform users (tourists, residents, merchants, etc.) of the lagoon system about the rules of the chocolate clam fishery</p> <p>22.2. Organize and conduct beach cleanups with the community</p> <p>21.1. Design and carry out pride and responsible consumption campaigns (festival)</p>