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Proyecto Manejo Integrado “De la Cuenca al Arrecife” de la Ecorregión del Arrecife Mesoamericano -MAR2R-

# UPDATED ACTION PLAN FIP SPINY LOBSTER OF HONDURAS

Document prepared by



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## Summary

For FIPs pursuing MSC sustainability certification or also called comprehensive FIPs, the [fisheryprogress.org](http://fisheryprogress.org) platform requires that for all those indicators of the MSC standard that are rated below 80, there must be at least one linked action to improve that indicator. It is expected that the implementation of these actions will lead to an improvement in the rating of the performance indicators of the standard.

For the case of the spiny lobster (*Panulirus argus*) fishery with traps from Honduras, a FIP was developed based on the gaps identified in the pre-assessment prepared in 2011 (Valle-Esquivel, 2011). A first version of the Action Plan was carried out in 2016 (Hervás, 2016), subsequently the fulfillment of the actions was reviewed in 2018 (Gozzer & Hernández, 2018). The present document corresponds to the updated version of the FIP work plan for the spiny lobster (*Panulirus argus*) fishery with traps from Honduras.

For the reading of this document, it is important to consider the elements included in the FIP work plan, which are:

1. **Actions:** Defined as a major activity in the FIP work plan to be completed to address specific deficiencies identified in the MSC pre-assessment. Actions are linked to the performance indicators of the MSC Fisheries Standard.
2. **Completion dates:** To ensure accountability, an expected completion date should be included for each action.
3. **Priority:** High, medium or low priority are defined considering the updated score defined in the 3-year audit report.
4. **Estimated cost:** Costs for each action.
5. **Responsible parties:** Organizations/individuals responsible for completing the actions agreed upon by the FIP stakeholders.
6. **MSC PIs:** All PIs to be addressed by the action.
7. **Tasks:** This section breaks down the actions identified into specific steps that describe how the action will be carried out. Tasks provide more clarity on how the FIP intends to complete each action. This allows participants to better track progress over time and communicate about progress made in the FIP.



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*Table 1. Workplan Overview*

<b>Version and date of the Work Plan</b>	<b>Version 3 - October 2021</b>
<b>Start date</b>	<b>End date</b>
<b>July, 2012</b>	<b>December, 2023</b>
<b>FIP Leader</b>	<b>Recommended improvements in</b>
<b>WWF</b>	<b>Meeting with stakeholders</b>
<b>FIP Coordinator</b>	<b>Workplan developed by</b>
<b>WWF</b>	<b>Centro de investigación Ecos</b>



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## Acronyms

APESCA	Fishing Industry Association
BCH	Central Bank of Honduras
CEM	Center for Marine Studies
CSA	Consequence Scale Analysis
DIGEPESCA	General Directorate of Fisheries and Aquaculture
ECOLANGOSTA +	Subproject Ecosystem Approach to the Caribbean Spiny Lobster Fishery
ETP	Endangered, Threatened or Protected
FIP	Fishery Improvement Project
HCR	Harvest Control Rules
INDNR	Illegal Unregulated Unreported Fishery
INPESCA	Nicaraguan Institute of Fisheries and Aquaculture
MARPLESCA	Caribbean Spiny Lobster Subregional Management Pilot Project
SCV	Monitoring, Control and Surveillance
MSC	Marine Stewardship Council
OSPESCA	Organization of the Fisheries and Aquaculture Sector of the Central American isthmus
Plan MARPLESCA	Regional Fishery Management Plan for Caribbean Spiny Lobster ( <i>Panulirus argus</i> )
RBF	Risk Assessment Framework
SICA	Central American Integration System
SICA	Scale Intensity Consequence Analysis
SIG	Geographic Information System
SIGMEPH	Honduran Fishing Vessel Monitoring System
UNAH	National Autonomous University of Honduras
UoA	Unit of Assessment
WWF	World Wildlife Fund



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## Unidad de evaluación

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

UoA	Description
Target species (common and scientific name)	Caribbean spiny lobster ( <i>Panulirus argus</i> )
Stock	West Central Atlantic Caribbean Lobster
Geographical area	Atlantic Territorial Waters and Exclusive Economic Zone of Honduras
Fishing method or gear type	Traps
Fishing fleet or group of vessels, or individuals fishing operators pursuing stock	Industrial fishing fleet with traps



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## FIP actions

### FIP Actions for Principle 1 - Sustainable populations

**Table 3. Performance Indicator Action Plan for Action 1.2 Development of monitoring procedures for lobster biology and fishing activity.**

Action Number and Name	1.2 Development of lobster biology and fishery monitoring procedures
Goal of the action	Regularly monitor the biology of species and fisheries data to feed into development of stock assessment methods.
Description of the action	<p>This action has been adapted in order to optimize the efforts made by DIGEPESCA to collect information on the fishery. Thus, the "Catch Report" which gathers information on the fleet's landings is collected by the Statistics Unit, while more specific information is collected by the Research Department through the "Fishing Logbook". In this sense, to carry out tasks 3 and 4, these institutions should jointly design and coordinate the use of instruments for the collection of information in order to simplify the fishermen's declaration and optimize the available resources.</p> <p>To complement the collection of information from the fishermen, Task 41 has been proposed, which consists of designing and implementing a socialization program to achieve adequate compliance with the declarations.</p> <p>On the other hand, Task 5 refers to the collection of information to establish the size structure of the catches, which is carried out in the processing plants and must follow the protocols already established in the Marplesca Plan.</p>
Expected compliance date	June, 2022
Priority	High
Estimated cost (\$US)	150,000
Responsible parties	DIGEPESCA, Shipowners, Processing Plants
MSC IDs associated with the action	1.2.3 Information and monitoring

Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
1.2 Development of monitoring procedures for lobster biology and fishing activity.	M3: Implementation of a landing log system for the total catch of lobsters.	DIGEPESCA	Shipowners	Jul 21	May 22
	M4: Monitoring of Catch per Unit Effort (CPUE)	DIGEPESCA	Shipowners	Jul 21	May 22
	M5: Biological sampling of the catch	DIGEPESCA	Process plants	Jul 21	Jun 22
	M41: Socialization workshops	DIGEPESCA	Shipowners	Jul 21	May 22

**Table 4. Performance Indicator Action Plan for Action 1.3 Lobster Stock Assessment**

Action Number and Name	1.3 Lobster stock assessment
Goal of the action	Quantitatively evaluate the stock status and estimate reference points to be used to manage the fishery
Description of the action	From this action, the only remaining tasks are to carry out a stock assessment establishing the status of the spiny lobster population based on Biological Reference Points. This should be done for the Honduras/Nicaragua platform.  It is worth mentioning that this action affects IC 2.5.1 since in the SICA <sup>1</sup> analysis it is established that a good score of IC 1.1.1 will help to ensure an unconditional pass in IC 2.5.1.
Expected compliance date	June, 2022
Priority	High
Estimated cost (\$US)	15,000
Responsible parties	DIGEPESCA, INPESCA, Binational Technical Group (Honduras Nicaragua)

<sup>1</sup> Hervás. 2020. Evaluación del riesgo de impacto de la nasa sobre los ecosistemas en Honduras mediante la aplicación del método de Análisis de Escala Intensidad y Consecuencia (SICA) del Marine Stewardship Council (MSC)

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MSC IDs associated with the action	1.1.1 Stock status 1.2.4 Assessment of stock status 2.5.1 Ecosystem Outcome
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Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
1.3 Lobster stock assessment	M7: Application of agreed assessment method for lobster stock at the Honduras-Nicaragua level. The status of the stock shall be assessed against limit and target reference points.	DIGEPESCA	INPESCA, Binational Technical Group (Honduras Nicaragua)	April, 2018	December, 2021
	M34: Definition of limit and target reference points for the entire Honduras/Nicaragua Platform	DIGEPESCA	INPESCA, Binational Technical Group (Honduras Nicaragua)	January, 2021	June, 2022

**Table 5. Performance Indicator Action Plan for Action 2.1 Review of the effectiveness of current conservation measures.**

Action Number and Name	2.1 Review of the Effectiveness of current conservation measures
Goal of the action	Carry out an analysis of the effectiveness of conservation measures in place for the lobster fishery in Honduras.
Description of the action	This action refers to an analysis of the current management measures, which in practice implies research studies to update the information on the reproductive cycle of lobster in the Honduras-Nicaragua platform to establish the suitability of the biological closure and minimum legal size. On the other hand, it is necessary to define the measure that will allow the establishment of a Harvest Control Rule, which is typically used to control fishing mortality (quota) or effort control. Given the complexity of this research, this action should be proposed within the framework of regional work with the support of OSPESCA.
Expected compliance date	May, 2022
Priority	Low





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Estimated cost (\$US)	90,000
Responsible parties	DIGEPESCA, Binational Technical Group (Honduras Nicaragua), OSPESCA
MSC IDs associated with the action	1.2.3 Information and monitoring 1.2.1 Harvest strategy 1.2.2 Harvest control rules and tools

Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
2.1 Review of the effectiveness of current conservation measures	M8: Analysis of the effectiveness of the measures implemented for the conservation of the lobster population.	DIGEPESCA	Binational Technical Group (Honduras Nicaragua, OSPESCA)	July, 2021	May, 2022
	M9: Selection of conservation measures to be used for the implementation of Harvest Control Rules and tools.	DIGEPESCA	Binational Technical Group (Honduras Nicaragua, OSPESCA)	July, 2021	May, 2022

**Table 6. Performance indicator action plan for action 2.2 Harvest control rules.**

Action Number and Name	2.2 Harvest control rules
Goal of the action	Development and implementation of Harvest Control Rules
Description of the action	This action refers to carrying out a Management Strategy Evaluation (MSE), which implies generating an Operational Model of the fishery that simulates the behavior of the population, considering the main sources of uncertainty, in the face of Harvest Control Rule (HCR) that are applicable to the fishery, and on the other hand, the formal implementation of the HCR. If a status lower than $B_{MSY}$ is established, the HCR should consider a recovery strategy in a period less than one generation of the lobster population.



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	At present, it is expected to have the HCR in force through the fishery management plan (priority task) and subsequently carry out the MSE that could be an input to adapt the HCR already implemented, after a fishing season is in force.
Expected compliance date	June, 2023
Priority	High
Estimated cost (\$US)	30.000
Responsible parties	DIGEPESCA, National group
MSC IDs associated with the action	1.1.1 Stock status 1.1.2 Stock rebuilding 1.2.1 Harvest strategy 1.2.2 Harvest control rules and tools 1.2.4 Assessment of stock status

Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
2.2 Harvest control rules	M10: Design and evaluation of harvest control rules.	DIGEPESCA	Honduras National Spiny Lobster Working Group	June, 2021	December, 2022
	M11: Implementation of harvest control rules	DIGEPESCA		December 2021	June, 2023

## FIP Actions for Principle 2 - Minimization of environmental impact

**Table 7. Performance Indicator Action Plan for Action 3.4 Collect necessary information and evaluate the impact of the fishery on bycatch and ecosystem (New action to replace Action 3.2 and part of Action 3.3 (M15)).**

Action Number and Name	3.4 Collect necessary information and evaluate the impact of the fishery on bycatch (New action to replace Action 3.2 and part of Action 3.3 (M15)).
Goal of the action	Understand the impact of the fishery on bycatch and the interaction with ETP species.
Description of the action	<p>During the stakeholder meeting, it was stated that there was a very low feasibility of implementing an on-board observer program as originally proposed in the FIP Workplan. Because of this, it was agreed to replace this activity (3.2) with an investigation to establish the list of species that are caught as bycatch in the fishery and the proportion of catch of these species with respect to the total catch, in addition to gathering information about the existence of interactions with ETP species and the nature of these interactions, if any. This requires a sampling design that is representative of the habitats where the fishery operates.</p> <p>The study should generate the necessary inputs to clarify that the fisheries bycatch is not composed of primary or secondary main species. In addition, this information should ensure that the impacts of the UoA on ETP species are negligible, as has been observed in other trap lobster fisheries operating on the same stock.</p> <p>Finally, the information gathered should be used as a basis for the development of a risk-based analysis (RBF) to understand the impacts that the UoA generates on non-target species.</p>
Expected compliance date	June 2023
Priority	High
Estimated cost (\$US)	50,000
Responsible parties	DIGEPESCA, Honduras National Spiny Lobster Working Group
MSC IDs associated with the action	<ul style="list-style-type: none"> <li>2.1.3 primary species information</li> <li>2.2.1 Secondary species outcome</li> <li>2.2.3 Secondary species information</li> <li>2.3.3 ETP species information</li> </ul>



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Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
3.4 Collect necessary information and evaluate the impact of the fishery on bycatch and ecosystem (New action to replace action 3.1 and part of action 3.2 (M15)).	M42: Scientific study to generate a list of species present in the bycatch and their proportion of the total catch.	DIGEPESCA	MAR2R, UNAH	January, 2022	June 2023
	M43: Conduct risk-based analysis (RBF) of species that make up the bycatch.	DIGEPESCA	MAR2R	December, 2022	January, 2023

**Table 8. Performance Indicator Action Plan for Action 3.3. Implementation of impact mitigation measures (Bycatch and ETP).**

Action Number and Name	3.3 Implementation of impact mitigation measures (if necessary)
Goal of the action	Implementation of measures to reduce bycatch, as well as minimize interactions with ETP species (if necessary).
Description of the action	<p>In case it is determined that the UoA generates a moderate or high risk on any of the species that make up the bycatch (RBF result), management measures must be designed and implemented with the objective of minimizing the mortality of these species.</p> <p>On the other hand, if the research defined in M42 reports interactions with ETP species, management measures should be designed and implemented to minimize their mortality.</p>
Expected compliance date	June, 2023
Priority	High
Estimated cost (\$US)	10,000
Responsible parties	DIGEPESCA, National



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MSC IDs associated with the action	2.1.2 Primary species - Management Strategy 2.2.2 Secondary species - Management Strategy 2.3.2 ETP species - Management Strategy
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Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
Implementation of impact mitigation measures (Bycatch and ETP).	M16: Design and implement management measures with the objective of minimizing the mortality of bycatch species, as well as minimizing interactions with ETP species (if necessary).	DIGEPESCA	MAR2R, UNAH	January, 2023	December, 2023

**Table 9. Performance Indicator Action Plan for Action 4.1. Monitoring the impact of lobster traps on habitats and ecosystems**

Action Number and Name	4.1. Monitoring the impact of lobster traps on habitats and ecosystems
Goal of the action	Generate information for habitat and ecosystem
Description of the action	<p>For this Action, <i>M17: Review of available information/literature on the impact of lobster traps in other areas</i> and <i>M18: a) Development of habitat map b) Mapping of fishing effort distribution for lobster trap fleet</i> were completed in 2017 as reported in the 2018 Revised FIP Action Plan. The 2018 FIP Action Plan also added one additional milestone: <i>M35: Review of information on the impact of traps on the ecosystem of the Honduran Caribbean Sea</i>, which is still yet to be completed.</p> <p>Before carrying out the SICA, it was anticipated that the disposition of traps in coral reefs could have a relevant impact on the ecosystem. However, the SICA report, completed in December 2020, shows that fishing is the activity that could be generating the greatest impact, mainly on the food web and not on coral reefs.</p>

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	Therefore, the remaining task of the action (M35) aims to identify lobster predators and prey and their roles in the ecosystem. In this way, it will be possible to understand the effect of fishing on the food chain and will help to fully understand the key elements of the ecosystem and the main impacts of UoA on these elements.
Expected compliance date	December, 2023
Priority	Medium
Estimated cost (\$US)	10,000
Responsible parties	DIGEPESCA
MSC IDs associated with the action	2.4.3 Habitat Information 2.5.3 Ecosystem Information

Action	Task/milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
4.1. Monitoring the impact of lobster traps on habitats and ecosystems	M35: Review of information on the impact of traps on the ecosystem of the Honduran Caribbean Sea.	DIGEPESCA	MAR2R, WWF	January, 2022	December, 2023

**Table 10. Performance indicator action plan for action 4.3. Implementation of impact mitigation measures (habitats and ecosystems).**

Action Number and Name	4.3. Implementation of impact mitigation measures (habitats and ecosystems)
Goal of the action	Implementation of measures to mitigate the impact on habitats and ecosystems.
Description of the action	This action consists of designing and implementing management measures with the objective of minimizing the impact on habitats and ecosystems. The results and recommendations of the CSA and SICA analyses should be considered (M17 and M36).
Expected compliance date	July, 2022
Priority	Medium
Estimated cost (\$US)	10,000



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Responsible parties	DIGEPESCA, Honduras National Spiny Lobster Working Group
MSC IDs associated with the action	2.4.1 Habitat Outcome 2.4.2 Habitat sp. Management Strategy 2.5.1 Ecosystem Outcome 2.5.2 Ecosystem sp. management strategy

Action	Task/Milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
4.3. Implementation of impact mitigation measures (habitats and ecosystems).	M20: If necessary, implement conservation measures to minimize impacts on habitats and ecosystems.	DIGEPESCA	Honduras National Spiny Lobster Working Group	June, 2021	July, 2022

### FIP Actions for Principle 3 - Effective management

**Table 11. Performance Indicator Action Plan for Action 5.2 Consultation procedures.**

Action Number and Name	5.2 Consultation procedures
Goal of the action	Develop inclusive consultation procedures for stakeholder participation.
Description of the action	The pre-assessment concluded that consultation processes are not transparent, so it will be important to ensure that stakeholders are involved in the decision-making process to obtain an unconditional pass.

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	<p>The objective of this activity is to establish inclusive stakeholder participation processes, which should be integrated into the management decision-making process. To improve the participation process, the implementation of a Consultative Committee for the Honduran spiny lobster fishery is proposed. This mechanism is planned to be incorporated as part of the Management Plan. Because of this, a new task is included to provide a regulatory framework for these processes (M44).</p> <p>Although it was not an original objective of this action, the foregoing would make it unnecessary to reform the fishing law (M37) since with the development of the regulation it is expected to improve the conflict resolution processes.</p>
Expected compliance date	December, 2021
Priority	High
Estimated cost (\$US)	10,000
Responsible parties	DIGEPESCA, Honduras National Spiny Lobster Working Group
MSC IDs associated with the action	<p>3.1.1 Legal and customary framework</p> <p>3.1.2 Consultation, roles and responsibilities</p> <p>3.2.2 Decision-making processes</p>

Action	Task/Milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
5.2 Consultation procedures	M23: Establishing a participation group for stakeholders	DIGEPESCA	Honduras National Spiny Lobster Working Group	December, 2021	June, 2022
	M24: Stakeholder working group (Consultant Committee for sustainable management of Honduras spiny lobster) to implement management measures	Consultative Committee	DIGEPESCA	December, 22	June, 2023





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	M44 Establish a regulation that considers mechanisms for stakeholder participation (Consultative Committee).	DIGEPESCA		July, 2021	July, 22
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**Table 12. Performance Indicators Action Plan for Action 6.1 Adaptation of OSPESCA's Regional Fisheries Management Plan**

<b>Action Number and Name</b>	<b>6.1 Adaptation of the regional Fishery Management Plan of OSPESCA</b>
Goal of the action	Development of Spiny Lobster Fishery Management at National level adapted from Regional Lobster Fisheries Management (MARPLESCA-OSPESCA)
Description of the action	This action is at an advanced stage and consists of the promulgation of a Management Plan for the fishery that considers the recommendations contained in the MARPLESCA Plan, as well as CSA and SICA reports.
Expected compliance date	December, 2022
Priority	High
Estimated cost (\$US)	10,000
Responsible parties	DIGEPESCA, Honduras National Spiny Lobster Working Group
MSC IDs associated with the action	1.1.2 Stock rebuilding 1.2.1 Harvest strategy 1.2.2 Harvest control rules and tools 2.4.2 Habitat management strategy 2.5.2 Ecosystem management strategy 3.2.1 Specific fishery objectives 3.2.2 Decision-making processes

Action	Task/Milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion



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6.1 Adaptation of the OSPESCA Regional Fishery Management Plan	M25: Development of a Lobster Fishery Management Plan	DIGEPESCA	OSPESCA	June, 2021	December, 2022
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**Table 13. Performance Indicator Action Plan for Action 6.2 Monitoring, Control and Surveillance (MCS).**

Action Number and Name	6.2 Monitoring, Control and Surveillance (MCS)
Goal of the action	Implementation of MCS to ensure the application and enforcement of management measures for the fishery.
Description of the action	<p>MCS implementation to ensure the application and enforcement of management measures for the fishery. As part of the 2012 Action Plan for the improvement of the lobster fishery, a Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of the MCS system has been conducted (Occhiena Pineda, 2016)<sup>2</sup>. The analysis provides a series of recommendations to improve the implementation capacity of the MCS system for the Honduran lobster fishery. The milestones included in this activity are based on the recommendations of Pineda Occhiena (2016).</p> <p><b>M26</b> consists of including in the programming of the DIGEPESCA Annual Operational Plan MCS activities the following:</p> <ul style="list-style-type: none"> <li>- Surveillance activities at sea with the support of patrol boats and Naval Officers of the FNH (Fuerza Naval Honduras).</li> <li>- Inspection activities in the main landing ports of the industrial lobster fleet and mother ships.</li> <li>- Inspection activities to the main lobster commercial establishments (hotels, restaurants, supermarkets, markets, fishmongers, plants) in La Ceiba, Roatan, Guanaja Tegucigalpa and San Pedro Sula, during the closed and fishing seasons.</li> <li>- Training activities for naval officers who carry out inspection tasks in fishing grounds.</li> </ul> <p><b>M27</b> consists of strengthening inter-institutional cooperation between actors such as DIGEPESCA, the Navy, the Ports and civil society observers (fishermen), which will allow for greater inter-institutional cooperation. Currently there is</p>

<sup>2</sup> Pineda-Occhiena, M. P. 2016a. Análisis FODA de la actual Estrategia de Monitoreo, Control y Vigilancia (MCV) aplicada a la pesquería de la langosta espinosa *Panulirus argus* de Honduras y recomendaciones para el mejoramiento. WWF Mesoamérica, Marzo, 2016. 15pp.



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	<p>already cooperation between these institutions during the fishing season and closed season, therefore it is considered that these institutions have been functioning as a proper committee, so this task is considered complete.</p> <p><b>M28</b> consists of developing a training program for fisheries inspectors. The training program will aim to strengthen the inspectors' capacities in the use of data collection forms in establishments (supermarkets, hotels, restaurants, fish markets and markets, processing plants) and the compilation of inspection reports and data entry. It is important to mention at this point those inspectors are trained periodically, but it is recommended that a program be drafted to define the objectives of the training process, as well as the frequency of these actions.</p> <p><b>M29</b> uses the Geographic Information System (GIS) and the Monitoring of Fishing Vessels of Honduras (SIGMEPH) as a tool for the MCS System. Occhiena Pineda (2016)<sup>3</sup> recommends that SIGMEPH be part of the Department of Control and Surveillance. This will facilitate the use of SIGMEPH in the application of sanctions that will provide effective deterrence. Regarding this point, it was indicated in the meeting with stakeholders that the SGMEPH was operational in DIGEPESCA, but that licenses have expired, so in order to move forward on this matter, reactivation of the license by DIGEPESCA is required.</p> <p><b>M30</b> addresses the need to achieve a high level of compliance by the fishing fleet. This requires the development of a training program in the prevention of IUU fishing. Fishermen should receive information on lobster fishing regulations through an educational campaign.</p>
Expected compliance date	December, 2022
Priority	Medium
Estimated cost (\$US)	10,000
Responsible parties	DIGEPESCA, Navy, Merchant Marine
MSC IDs associated with the action	3.2.3. Compliance and enforcement

<sup>3</sup> Pineda-Occhiena, M. P. 2016b. Diseño de Estudio Nacional para la Evaluación de la Pesca Ilegal, No Declarada, No Reglamentada (INDNR) de la Langosta Espinosa (*Panulirus argus*) en Honduras. Pp. 35

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Action	Task/Milestone	Responsible		Date	
		Leader	Supporting role	Starting	Expected completion
6.2 Monitoring, Control and Surveillance (MCS)	<b>M26:</b> Inclusion of DIGEPESCA's Annual Work Plan for MCS activities programming.	DIGEPESCA	Navy, Merchant Marine	December, 2021	July, 2022
	<b>M27:</b> Strengthened inter- institutional cooperation- COMPLETED	DIGEPESCA		COMPLETED August 2017	
	<b>M28:</b> Developing a training program for fisheries inspectors	DIGEPESCA	Navy, Merchant Marine	June, 2021	December, 2021
	<b>M29:</b> Implementation of SIGMEPH as a tool of the MCS system.	DIGEPESCA	Navy, Merchant Marine	June, 2021	December, 2022
	<b>M30:</b> IUU fishing training	DIGEPESCA	Navy, Merchant Marine	June, 2021	December, 2022
	<b>M39:</b> Design and implementation of methodology to estimate undeclared fisheries by DIGEPESCA, preparation of periodic reports of the request and presentation to interested parties	DIGEPESCA		June, 2021	December, 2023
	<b>M40:</b> Systematization in databases of infractions for illegal fishing of hydrobiological resources in Honduras.	DIGEPESCA		June, 2021	December, 2023

Table 14. Performance indicators action plan for action 6.3. Monitoring and management of performance evaluation



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Action Number and Name	6.3. Monitoring and management of the performance evaluation.
Goal of the action	Monitor and evaluate performance of the fishery management system.
Description of the action	<p>The pre-assessment concluded the absence of a system to monitor and evaluate the performance of the management system. However, in one of the sectoral meetings it was reported that DIGEPESCA maintains regular internal audits to evaluate parts of the fishery-specific management system.</p> <p>Detailed information on the audits was not available. To determine if this system considers an evaluation of the key parts of the management system and if it is performed periodically, it is recommended to review the audited components and the history of the audits, thus concluding this action.</p>
Expected compliance date	December, 2022
Priority	Medium
Estimated cost (\$US)	1,000
Responsible parties	DIGEPESCA
MSC IDs associated with the action	3.2.4 Management performance evaluation

Action	Task/Milestone	Responsible		Date	
		Leader	Support	Beginning	End
Action 6.3: Follow-up and management of performance evaluation	<b>M31:</b> Evaluation of the key parts of the management system	DIGEPESCA		June, 2021	December, 2022
	<b>M32:</b> Evaluation review by external stakeholder	DIGEPESCA		June, 2021	December, 2022



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## Report on activities completed during the development of the FIP

Principle	Action	Milestone	Status	End Date
1	1.1. Creation of a national and binational working group for the lobster stock assessment.	<b>M1:</b> National lobster stock assessment working group.	Completed	Aug, 2017
		<b>M2:</b> Binational working group for lobster stock assessment.	Completed	Jun, 2019
	1.3 Lobster stock assessment.	<b>M6:</b> Presentation of the preliminary assessment to the binational working group and the proposed and agreed assessment method to be used.	Completed	Sept, 2017
		<b>M33:</b> Training of the Honduran spiny lobster stock assessment work on the application of the stock assessment model.	Completed	Dec, 2020
2	3.1 Incorporate non-target species in landing logbooks.	No specific tasks.	Completed	Dec, 2017
	3.2: Onboard observer program for long term monitoring of bycatch and ETP species	All tasks are replaced with action 3.4	Replaced	
	3.3. Implementation of impact mitigation measures (if necessary)	<b>M15:</b> Analysis of the bycatch monitoring results	Replaced with Action 3.4 and M16	
	4.1. Monitoring the impact of lobster traps on habitats and ecosystems.	<b>M17:</b> Review of available information/literature on the impact of lobster traps in other areas.	Completed	Mar, 2017
		<b>M18:</b> a) Development of habitat map b) Mapping of fishing effort distribution for lobster trap fleet.	Completed	Mar, 2017
	4.2 Apply the risk-based analysis methodology "Consequence Scale Analysis" (CSA) and Scale Intensity Consequence Analysis (SICA) to estimate the risk of fishery impacts on habitat and ecosystem.	<b>M19:</b> Estimating the impact of trapping on affected habitats.	Completed	Mar, 2017
<b>M36:</b> Conduct a Scale Intensity Consequence Analysis (SICA).		Completed	Dec, 2020	
3	5.1 Update of the Fisheries Law.	<b>M21:</b> Publication of fisheries legislation in the Official Gazette.	Completed	Aug, 2017



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		M37: Submission and sharing of proposal for the amendment of Fishery Law in Honduras	Eliminated	
		M38: Official Publication of the New Fisheries and Aquaculture Law and corresponding regulations.	Eliminated	
	5.2 Consultation procedures.	<b>M22:</b> Stakeholder selection in participatory processes.	Completed	Mar, 2018
	6.2 Monitoring, control and surveillance (MCS).	<b>M27:</b> Strengthening inter-institutional cooperation.	Completed	Mar, 2018