

Country Name	Project for the Formulation of Master Plan for Sustainable Fisheries (MASPLAN)
Republic of Maldives	

I. Project Outline

Background	Maldives is a maritime nation with 1,190 islands and its economy depends on tourism and fisheries. While the importance of fisheries had declined with the rise of tourism, marine products still represented 97% of the total export value (source: Maldives Customs, 2015). In Maldives, domestic marine products are important source of nutrition. Promotion of fisheries is important for job creation as many people are engaged in fisheries, and it was sought to add value to marine products to export. Fisheries sector development plan was needed to specify the strategies, approaches and activities for sustainable and efficient utilization of marine resources.				
Objectives of the Project	This project aims to formulate the master plan for the fisheries sector development in Maldives, thereby contributing to the sustainable and efficient use of marine resources. 1. Expected Goals through the proposed plan ¹ : Through the implementation of fisheries policy/management measures and/or related projects, which are evolved from the master plan, sustainable and efficient use of marine resources is further promoted.				
Activities of the Project	<ol style="list-style-type: none"> 1. Project Site: Whole area of Maldives 2. Main Activities: <ol style="list-style-type: none"> 1) Analysis of current situation and issues, selection of pilot projects to be implemented, and monitoring of prioritized issues 2) Formulation of the draft sub-sector development plan and road map 3) Implementation and monitoring of the pilot projects 4) Finalization of the master plan 3. Inputs (to carry out above activities) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> Japanese Side 1) Mission members: 11 persons 2) Trainees Received: 20 persons 3) Equipment: Equipment for the pilot projects </td> <td style="width: 50%; vertical-align: top;"> Maldives Side 1) Staff Allocated: 63 persons in total - Project Directors, Project Managers: 8 persons in total - Working groups: 55 persons in total </td> </tr> </table> 			Japanese Side 1) Mission members: 11 persons 2) Trainees Received: 20 persons 3) Equipment: Equipment for the pilot projects	Maldives Side 1) Staff Allocated: 63 persons in total - Project Directors, Project Managers: 8 persons in total - Working groups: 55 persons in total
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Project Period	(ex-ante) October 2014-September 2017 (actual) October 2014-October 2017	Project Cost	(ex-ante) 375 million yen, (actual) 362 million yen		
Implementing Agency	Ministry of Fisheries and Agriculture (MoFA)				
Cooperation Agency in Japan	INTEM Consulting, Inc. and Fisheries & Aquaculture International Co., Ltd.				

II. Result of the Evaluation

< Special Perspectives Considered in the Ex-Post Evaluation >

In the ex-ante evaluation sheet, “Relevant fishery policy/management measures and/or related projects are implemented based on the Master Plan” (Indicator: number of implemented plan) was recognized as a “Goal which will be attained by utilizing the proposed plan.” However, it should be an indicator for “Utilization status of the Proposed Plan.”

1 Relevance
<p><Consistency with the Development Policy of Maldives at the Time of Ex-Ante Evaluation > The fisheries sector was one of the priority sectors in the Strategic Action Plan (SAP) 2009-2013 of Maldives, which was its 8th National Development Plan. The new government of Maldives was formed in November 2013 and was yet to prepare fisheries sector development plan at the time of ex-ante evaluation. The master plan developed by the project was going to be approved as the fisheries sector development plan. This project was in line with the national policy of Maldives.</p> <p><Consistency with the Development Needs of Maldives at the Time of Ex-Ante Evaluation > This project was consistent with the needs for a master plan of the fisheries sector as mentioned in “Background” above.</p> <p><Consistency with Japan’s ODA Policy at the Time of Ex-Ante Evaluation> Development of local industry including fisheries was one of the priority areas of Japan’s assistance policy for Maldives. The economic structure of Maldives is vulnerable as the tourism, the largest industry, is easily affected by the external factors such as the economic trends of developed countries. Supporting the fisheries sector was expected to contribute to the establishment of resilient economic structure.² This project was in line with Japan’s ODA policy for Maldives.</p> <p><Evaluation Result> In light of the above, the relevance of the project is high.</p>
2 Effectiveness/Impact
<p><Status of Achievement for the Objectives at the Time of Project Completion> The objectives of the project (Outputs) were achieved at the time of project completion. The final draft of the master plan titled “Sustainable Fisheries Development Plan of the Important Subsectors in the Maldives 2016-2025, Goals, Objectives and Projects” (SFDPIS) was submitted to the Minister in August 2017. Development plans and roadmaps for the four sub-sectors were formulated through the preparation of SFDPIS. Eleven out of 32 priority projects in the four sub-sectors of the master plan had already been implemented to a certain extent by that time. Capacity of MoFA was strengthened through the project.</p>

¹ The degree of achievement of expected goals is not to be assessed in principle at the time of ex-post evaluation, since it is defined as the medium-to-long-term goals which will be attained as a result of crystallizing the proposed plan (“output” of the project).

² ODA Data Collection in 2014

< Utilization Status of the Proposed Plan at the Time of Ex-post Evaluation>

The master plan (SFDPPIS) was approved in August 2019. The Project Director of the JICA project became the minister and her capacity and experience she gained during the project led her to approve the master plan. SFDPPIS has been reflected to the current Strategic Action Plan (SAP) 2019-2023³ and the revised Fishery Act for the Maldives (2019)⁴. In SAP 2019-2023, the fisheries sector aims management capacity development, protection of marine ecosystems, development of aquaculture industry for diversification and reduction of dependency on wild stocks, and increase of profitability through the improvement of technology, access to finance, and increasing value addition of fish and fishery products. The activities are based on institutional capacity strengthening through international and multi-sectoral partnerships, education, research, technology development and promotion.

Seven groups of activities have been implemented in SAP, supported by various partners including World Bank’s Sustainable Fisheries Resources Development Project (SFRDP) (2017-2022)⁵ (US\$18million) which aims to improve fisheries management at regional and national levels. As the Utilization Status indicator did not set the target number of implemented activities, it is difficult to judge whether seven is sufficient or not. Considering the target year of SAP (2023) and the low degree of implementation in one of four sub-sectors (post-harvest and value addition) due to the delayed implementation of the related component of SFRDP and/or COVID-19, it is judged that the indicator (number of activities) has been partially achieved.

<Achievement status of Expected Goals through the Proposed Plan at the time of Ex-post evaluation>

The expected Goal is “Through the implementation of fishery policy/management measures and/or related projects, which are evolved from the Master Plan, sustainable and efficient use of marine resources is further promoted.” There have been some examples of promotion of use of marine resources as indicated in the table below.

<Other Impacts at the Time of Ex-post Evaluation>

No negative impacts have been observed including those on the environment or society.

This project was classified as Category B as the project is not likely to have significant adverse impact on the environment under the JICA guidelines for environmental and social considerations (April2010) in terms of its sectors, characteristics and areas. The project conducted socio-environmental impact assessment for the pilot and priority projects of the master plan and implemented measures for mitigation of negative impacts.

While impacts on gender have not been objectively assessed and evaluated, there would have been positive impacts due to the nature of the activities conducted which include number of female farmers (for example, six out of the 19 grouper growout pilot farmers are female and this activity would involve more women as it is extended).

<Evaluation Result>

In light of the above, the effectiveness/impact of the project is high.

Status of Achievement of Utilization Status of the Proposed Plan and Expected Goals through the Proposed Plan

Aim	Indicators	Results	
(Outputs) 1. Master Plan for Fisheries Development which reflects the results of pilot projects is formulated.		(Project completion) Achieved The final draft of the master plan (SFDPPIS) was submitted to the minister of MoFA in August 2017.	source : Final report
2. Development plans and roadmaps for each sub-sector are formulated.		(Project completion) Achieved Through the development of SFDPPIS, the four sub-sectors were analyzed and the challenges, causes and countermeasures were identified. Development plans and roadmaps were formulated for each sub-sector.	source : Final report
3. Capacity of staff members of MoFA and other relevant organizations is enhanced through the development of the master plan.		(Project completion) Achieved Capacity of staff was strengthened through planning and implementing policy and management measures and short-term training in Japan and interaction with Japanese experts during the implementation of the pilot projects. (Ex-post evaluation) Continued Their capacity is maintained as mentioned in the section of Sustainability.	source : Final report, Questionnaire and interview of MoFA
(Utilization Status of the Proposed Plan) 1. The Master Plan formulated by the Project is officially adopted by the Government of Maldives as the Fishery Sector Development Plan for the achievement of national development goals.	Indicator 1 Approval of the master plan as the fishery sector development plan	(Ex-post Evaluation) Achieved The master plan (SFDPPIS) was approved in August 2019. It has been reflected to the current Strategic Action Plan (SAP) 2019-2023 and the revised Fishery Act for the Maldives (2019).	source : Questionnaire and interview of MoFA
2. Relevant fishery policy/management measures and/or related projects are implemented based on the Master Plan.	Indicator 2 Number of policies/projects implemented	(Ex-post Evaluation) Partially achieved Seven groups of activities have been implemented in SAP 2019-2023 supported by World Bank SFRDP and other sources of funding. (See Annex)	source : Questionnaire and interview of MoFA
(Expected Goals through	Indicator 1	(Ex-post Evaluation) Not verifiable (too early to measure the achievement:	source :

³ <https://storage.googleapis.com/presidency.gov.mv/Documents/SAP2019-2023.pdf>

⁴ <https://www.gov.mv/en/files/fisheries-act-of-the-maldives.pdf>

⁵ <http://sfrdp.fishagri.gov.mv/>, <https://projects.worldbank.org/en/projects-operations/project-detail/P157801>

<p>the Proposed Plan) Through the implementation of fishery policy/management measures and/or related projects, which are evolved from the Master Plan, sustainable and efficient use of marine resources is further promoted.</p>	<p>The degree of achievement of the indicators in the Result Framework after five years of project completion</p>	<p>five years after project completion = 2022) Progress of some activities under SAP and SFRDP shows promotion of use of marine resources:</p> <ul style="list-style-type: none"> - Diamondback squid (DBS): DBS was identified as a new deep-sea fishery during the project. After the project, there were reasonable catch for a while. Due to the decrease of demanded in the local market since then, DBS fishing by the government support has stopped. (OF7 in Annex) - Skipjack tuna purchase and processing have been promoted in small scale fish processing facilities that will be operated in consultation with the island councils in major fishing islands. (OF8 in Annex) - MoFA held “Fishcamp” for children to learn about marine resources in April 2018.⁶ 	<p>Questionnaire and interview of MoFA</p>
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3 Efficiency

The actual project cost was within the plan (97%) and the actual project period exceeded the plan (103%). The planned project period was from October 2014 to September 2017 (36 months) and the actual period was from October 2014 to October 2017 (37 months). The project results (Outputs) were achieved.
Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

As mentioned in “Utilization Status of the Proposed Plan at the Time of Ex-post Evaluation” above, fishery is one of the priority sectors in SAP 2019-2023. The principal objectives of the revised Fishery Act (2019) include sustainable use and protection/management of fisheries resources and their ecosystems in accordance with equity and good governance; a complete system to develop and manage the aquaculture industry; and establishment of fish factories in islands under partnership with local councils and private parties. The components of the master plan have been integrated into these policies.

< Institutional/Organizational Aspect>

All sections in the Fisheries Department are responsible for the implementation of SAP in their respective work. Planning and Coordination Section is the key section for the effective implementation. The Fisheries Department has Director General-Fisheries; Deputy Director General-Fisheries Extension and Training; Directors of Fisheries Management, Fisheries Compliance, Fisheries Industrial Development, Policy and Planning; and three Planning Officers in the Policy and Planning Section. Maldives Marine Research Institute is under MoFA and has Director General, Mariculture Component Coordinator, Marine Biologist (Technical Coordinator), Technical Manager, technicians, assistants, and officers.

<Technical Aspect>

Staff of the Fishery Department and Maldives Marine Research Institute have sufficient experience and educational background. Their capacity was strengthened by the JICA project through planning and implementing policy and management measures and short-term training in Japan and interaction with Japanese experts during the implementation of the pilot projects. 84% of the staff involved in the implementation of the project remains with the Ministry. World Bank’s SFRDP provides technical assistance, extension and institutional strengthening. However, there is a serious shortage of the graduate level staff within MoFA for the effective implementation of the government policies including the master plan. MoFA has taken an active role in attracting long term scholarships for the sector. A new JICA technical cooperation project on the promotion of blue economy in the fisheries sector in the Maldives is expected to start from 2022. It will provide MoFA staff with training and contribute to their capacity strengthening.

<Financial Aspect>

The government does not set specific budget for the implementation of activities identified by the master plan, and they are supported by donor funding, including World Bank’s SFRDP, Saudi Development Fund, Indian Grant Aid and loan financing, and loans awarded through the SME Development and Financing Corporation. The new project of JICA will bear the cost of implementation of activities in the master plan.

<Evaluation Result>

In light of the above, some problems have been observed in terms of the technical and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

This project formulated a master plan for the fisheries sector development in Maldives and it was officially approved. The master plan has been integrated into the new national development policy (SAP 2019-2023) and activities are being implemented for the sustainable and efficient use of marine resources, while the degree of progress varies. There are some problems in technical and financial aspects of sustainability. As for the efficiency, project cost was within the plan and the project period exceeded the plan.
Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

The impacts on gender have not been objectively assessed and evaluated before and after the project. MoFA should prepare a mechanism to assess and evaluate the impacts on gender for future projects related to the fisheries sector. This perspective is important for promoting sustainable development and achieving the Sustainable Development Goals as well.

⁶ <https://m.facebook.com/jicapr/posts/1673248279377979/>

Lessons Learned for JICA:

1. The implementation of many of the aquaculture sub-sector activities was behind schedule due to the delayed implementation of the aquaculture component of SFRDP funded by the World Bank. Projects involving various actors are always challenging, however, close coordination through good communication could avoid such issue.
2. From the sustainability point of view, the soft component should be considered with the same importance as the hard component and resources (including finance) should also be allocated.



Training for Capacity Development for Formulation of Fisheries Sector Development Plan (MASPLAN)

Quality Improvement of Traditional Processed Fish (Valhommas)



Preliminary Resources Survey on Availability of Deep-Sea Resources

Annex. Implementation status of Master plan activities at the time of ex-post evaluation

#	Approach	Details	Funding source
1	OF1. Improvement of Monitoring, Control and Surveillance (MCS) systems	Fisheries Rangers/Inspectors have been deployed in 9 strategic fishing islands to better implement the MCS framework. The Rangers have gone through a rigorous training program and are involved form activities ranging from inspection of fishing vessels, investigation of fisheries offences, information dissemination and port state inspections of foreign fishing vessels.	Government / World Bank Sustainable Fisheries Resources Development Project (SFRDP) (2017-2022)
2	OF4. Extension of improved live bait stocking system in pole-and-line fishery	Information on the improved live bait stocking systems have been provided to a number of fishers from various fishing regions during various awareness sessions of MoFA. The sessions always take up topics of different areas such as logbook reporting, illegal, unreported and unregulated (IUU) fishing, protection of ocean ecosystem etc.	Government
3	OF5. Development of a new masdhoni design	The project is a pipeline project and the tender for the development of the new design of the 5th Generation fishing has just concluded.	Government
4	OF7. Development of new deep-sea fisheries (Diamondback Squid (DBS) and other fishes)	8 vessels were leased the equipment to engage in DBS fishing. The vessels enjoyed reasonable catch rates initially with the state-owned enterprise Maldives Industrial Fisheries Co. Ltd. (MIFCO) purchasing the bulk of the DBS. MIFCO has since stopped the purchase of DBS due to low demanded in the local market and the vessels have stopped fishing.	JICA / government
5	OF8. Establishment of new fish purchase/ processing facilities	The skipjack tuna purchase and processing segment has been opened up with the revocation of the exclusivity policy in place since 2002. With the change in policy government has invested in small scale fish processing facilities that will be operated in consultation with the island councils in major fishing islands. The government is also investing in 12 new ice plants through various projects and government financing schemes.	Indian aid/ Saudi Fund for Development/ Government

6	<p>RF2. Improvement of relevant legislation about reef fisheries</p> <p>RF3. Enhancement of fisheries compliance/enforcement</p> <p>RF4. Design and implementation of reef fisheries management plans</p>	<p>Pursuant to the Fisheries Act, 2019 and the applicable regulations, the following 7 management plans had been adopted and notified: (i) General Reef Fishery Management Plan, (ii) Diamondback Squid Fishery Management Plan, (iii) Sea Cucumber Fishery Management Plan, (iv) Marine Aquarium Fishery Management Plan, (v) Grouper Fishery Management Plan, (vi) Lobster Fishery Management Plan, and (vii) Bill Fish Fishery Management Plan.</p> <p>The reef fishery management plan now mandates all commercial reef fishing vessels to obtain a fishing license and an improved system for catch reporting is also specified through the regulation.</p>	Government / World Bank SFRDP
7	<p>AQ 1. Establishment of multi-species hatchery</p> <p>AQ 2. Establishment of milkfish seed production facilities to provide baits</p> <p>AQ 4. Refinement of existing aquaculture techniques</p> <p>AQ 5. Training and demonstration capacity building of MTRDF/MRC</p> <p>AQ 6. Extension of potential mariculture techniques</p> <p>AQ 8. Improvement of aquatic animal health management</p> <p>AQ 9. Strengthening institutional mechanism on aquaculture activities</p> <p>AQ 10. Development of financing system for aquaculture</p>	<p>To facilitate the development of a mariculture sector through the establishment of a hatchery where seed stock for outgrowing can be sourced from.</p> <p>Inputs from this project has been heavily integrated into the World Bank SFRDP.</p> <p>The Mariculture Component of SFRDP focuses on a rounded approach to aquaculture development through establishing a multispecies hatchery, supporting private sector and households to start up growout farming, training and technical assistance to upcoming hatcheries and farming operations, development of aquatic animal health monitoring and diagnostic capacity in the Maldives, continuing research and development in species of mariculture interest as well as establishing facilities and programmes for focused mariculture trainings.</p> <p>The activities carried out under this project includes;</p> <ol style="list-style-type: none"> 1. Multispecies hatchery construction and operation (currently near completion of ancillary facilities required for the facility and finalizing the design, build and operate concept for the multispecies hatchery development). The hatchery, when operational, will produce grouper fingerlings, sea cucumber juveniles and an appropriate species of bait for the pole-and-line fishery. 2. Infrastructure development of a Mariculture Research and Development Facility at Maniyafushi Island (all infrastructure development near completion. Basic Mariculture Courses planned for late 2021) 3. Development of growout farmers for the target species (19 household level beneficiaries engaged in grouper grow-out farming. So far 7 have grown their groupers to market size and sold their stock). 4. The development and operationalization of the Aquatic Animal Health Facility that will offer aquatic disease diagnostic services and post-border quarantine services for imported aquatic animals. <p>200 grouper growout farms, 125 sea cucumber growout farms nationwide (so far engaging 19 grouper growout farmers in a pilot activity)</p>	Government / World Bank SFRDP

Source: Questionnaire and interview of MoFA