

## Project Completion Report Validation

### Mariculture Enterprise Development Project (MEDEP)

#### Maldives

Date of validation by IOE: September 2020

## I. Basic project data

			Approval (US\$ m)		Actual (US\$ m)	
Region	Asia and the Pacific Division	Total project costs	7.170		2.863	
Country	Maldives	IFAD grant and percentage of total	2.525	35.2%	1.669	58.3%
Grant number	1-DSF-8104-MV (Grant) DSF Grant ID 1000004342	Borrower (Government of Maldives)	1.119	15.6%	1.194	41.7%
IFAD project ID	1100001624	Private sector	2.762	38.5%	0	0%
Type of project (subsector)	Fisheries	Beneficiaries	765	10.7%	0	0%
Financing type	E – IFAD (DSF Grant)					
Lending terms	n.a.					
Date of approval	06 September 2012					
Date of loan signature	09 January 2013					
Date of effectiveness	09 January 2013					
Loan amendments	n.a.	Number of beneficiaries	3,000 households, (direct) 18,000 people (direct and indirect)		112 people from 112 households (direct)	
Loan closure extensions	n.a.					
Country programme managers	Rasha Omar (current); Omer Zafar Hubert Boirard; Ya Tian	Loan closing date			30 June 2020	
Regional director(s)	Nigel Brett (current); Hoonae Kim	Mid-term review			28 January 2016	
Project completion report reviewer	Elsbeth Asbeek Brusse	IFAD grant disbursement at project completion (%)			77.9%	
PCR quality control panel	Eoghan Molloy; Fabrizio Felloni	Date of the project completion report			24 June 2020	

Source: Mariculture Enterprise Development Project. Project Completion Report. Main report and appendices.

## II. Project outline

<b>Country &amp; Project Name</b>	Maldives, Mariculture Enterprise Development Project (MEDEP).
<b>Project duration</b>	The total project duration was seven years. The MEDEP was approved by the IFAD Executive Board on 6 September 2012 and became effective on 9 January 2013. The original project completion date was 31 March 2018 and the closing date 31 September 2018. The project was extended twice. The first revised completion date and closure were 30 September 2019 and 31 December 2019, respectively. Thereafter, the completion date was extended to 31 December 2019 and the closing date to 30 June 2020. The loan (grant) closing date was 30 June 2020 and the effectiveness lag was four months. The first disbursement of funds was on 27 December 2013, almost one year after the entry into force date.
<b>Project goal, objectives and components</b>	The MEDEP goal was to expand livelihood opportunities and reduce vulnerability of the target communities with a development objective to enhance incomes and employment especially of youth and women from mariculture activities. The project consisted of three components: (i) Component 1 of Institutional strengthening; (ii) Component 2 of Mariculture value chain development; and (iii) Component 3 of Project management.
<b>Project area and target group</b>	The project area of the MEDEP comprised of islands with suitable lagoons for mariculture, limited other opportunities for employment for local people, willingness of the local communities to participate in mariculture, supportive island councils, the expression of interest of the private sector to invest in these islands and environmental clearance by the Environment Protection Agency to ensure no significant threat is posed to the fragile ecosystem and coral reefs. The actual implementation at household level was the pilot of sea cucumber production and this was implemented in three islands in Laamu Atoll, i.e.: Dhanbidhoo, Kalaidhoo and Isdhoo. The project target group included: (i) young women and men interested in mariculture; (ii) small entrepreneurs along the mariculture value chain; and (iii) private sector firms willing to invest in mariculture. The beneficiaries from the project were expected to be poor rural men and women working along or supplying the mariculture value chain, as well as small and medium-sized rural entrepreneurs. The project intended to generate direct and indirect employment opportunities for 3,000 households or 18,000 people who would be employed either directly in mariculture development or along the mariculture value chain.
<b>Project implementation</b>	The Ministry of Fisheries, Marine Resources and Agriculture (MOFMRA) was the lead implementing agency and had a key role to play in facilitating the partnership building between the project, Bank of Maldives (BML) and the private sector to help MEDEP in exploring potential openings of market access. There was no actual service provider per se in the project, but partnerships with BML as fund manager for the credit line and with the Marine Research Center for piloting the grouper brood and fingerling production, were established. Thirteen supervision and implementation support missions have been conducted.
<b>Changes during implementation</b>	As the project had little implementation activities during its first half of implementation, the Mid-term Review (MTR) recommended the introduction of piloting new activities such as sea cucumber production and grouper grow-out at household level. The design change did not take into consideration the required achievement of expected project goal and objectives; there was no revision of project goal and objectives.
<b>Financing</b>	Table 1 below displays the total project cost of US\$7.13 million, co-financed with an IFAD Grant (1-DSF-8104-MV) of SDR 1.65 million (approx. US\$2.49 million), government contribution of US\$1.12 million, and it expected US\$2.76 million from large-scale private entrepreneurs, and a further US\$0.765 million from small and medium enterprises. Overall project financial progress as of 30 September 2019 achieved a total of US\$2.86 million, or 40 per cent of the all-project allocation including the initially projected contributions from the private sector and the beneficiaries. In comparison with the actual committed/approved allocations from IFAD and the Government only, the project recorded an overall disbursement rate of 79 per cent. IFAD fund disbursement rate is 66 per cent in US\$ but 72 per cent in SDR (SDR1,193,125.32 of SDR1,650,000.00 as of October 2019); Government contribution is of 107 per cent. Table 2 shows the costs per component, financed by IFAD and the government.

Table 1  
Project costs (US\$ '000)

Funding source	Appraisal	% of appraisal costs	Actual	% of actual costs	% disbursed
IFAD Grant	2 525	35.2%	1 669	58.3%	66%
Government	1 119	15.6%	1 194	41.7%	107%
Beneficiaries	765	10.7%	0	0%	0%
Private sector	2 762	38.5%	0	0%	0%
<b>Total</b>	<b>7 170</b>	<b>100%</b>	<b>2 863</b>	<b>100%</b>	<b>79%*</b>

\*This rate is based on the appraisal costs of US\$3,644,000 from IFAD and the Government only. The disbursement rate when all financiers are included is 40 per cent.

Source: Mariculture Enterprise Development Project. Project Completion Report. Main report and appendices.

Table 2  
Component costs (US\$ '000) financed by IFAD and Government.

Component	Appraisal	% of appraisal costs	Actual	% of actual costs	% disbursed
1. Institutional strengthening	906	24.9%	1 049	36.6%	116%
2. Mariculture value chain development	2 104	57.7%	951	33.2%	45%
3. Project management	635	17.4%	865	30.2%	136%
<b>Total</b>	<b>3 644</b>	<b>100%</b>	<b>2 865</b>	<b>100%</b>	<b>79%</b>

Source: Mariculture Enterprise Development Project. Project Completion Report. Main report and appendices.

### III. Review of findings

PCR finding	Rating
<b>A. Core Criteria</b>	
<b>Relevance</b>	
<p>1. The design of MEDEP referred to the Government's Strategic Action Plan 2009-2013, which grounded the government's economic policy agenda on diversification of the economy and in increasing the role the private sector with the aim of achieving sustainable economic growth. The government also recognized the potential of the small and medium enterprises sector to create a more resilient and diversified economy and to create employment opportunities.<sup>1</sup> In addition, the project was aligned with strategy policy 5 of the Strategic Action Plan, to promote research in fisheries and introduce fish breeding and productivity. The strategy under this policy was, among others, to identify and lease potential islands, lagoons and water bodies for mariculture development in 2010 and 2011.</p> <p>2. The design principles were in line with the current IFAD Strategic Framework 2016-2025. Additionally, the project was in line with IFAD's strategy in the Maldives, which was to reduce the vulnerability of households whose livelihoods depend on smallholder agriculture and fish processing. More specifically, the project's objectives were in line with IFAD's strategic objectives in the Maldives, namely strengthened farmers'/producers' organizations and improved market opportunities for farmers through a public private producer partnership (4Ps) approach. IFAD's aim was to develop smallholder agriculture value chains and mariculture through market-driven commercialization and diversification, raising</p>	3

<sup>1</sup> Government of the Maldives (2009). "Aneh Dhivehi Raajje" The Strategic Action Plan. National Framework for Development 2009-2013, Male: Government of the Maldives.

<b>PCR finding</b>	<b>Rating</b>
<p>the incomes of smallholders and people engaged in fisheries and processing activities.<sup>2</sup></p> <p>3. The contribution of fisheries to the gross domestic product has declined in the recent years due to poor fish landings, increase in fuel prices and illegal fishing by foreign vessels.<sup>3</sup> The project's theory of change rested on the assumption that investments in mariculture could revive the fishing sector, which forms a key part of the traditional livelihoods in the country. Support to mariculture is also being recognized by IFAD as a major means for the development of small and medium enterprises in the island.<sup>4</sup></p> <p>4. The project target group included: (i) young women and men interested in mariculture; (ii) small entrepreneurs along the mariculture value chain; and (iii) private sector firms willing to invest in mariculture. The project targeting strategy was based on both poverty and geographical targeting. The main focus in poverty were young men and women, who represented the highest percentage of unemployed people in the Maldives. The geographical targeting was based on the selection of vulnerable groups from different locations suitable for mariculture production. Within the geographical targeting, the project design identified areas with the highest proportion of poverty.<sup>5</sup></p> <p>5. The MEDEP design was based on a 4P model and formulated on the principle of a value chain approach, intending to support activities along the value chain to ensure the development of the mariculture industry on a sustainable basis. However, in the absence of a value chain assessment, the project was unable to identify gaps and mobilize support accordingly. Challenges seemed to be underestimated, especially in the area of relying on the private sector to engage the beneficiaries in a production area where the country had not yet built its core competence of technical support. Moreover, BML did not have experience in lending to smallholder farmers using substitute collateral or without collateral.</p> <p>6. Despite little implementation of activities during the first years of the project, the MTR mission indicated that the MEDEP development objectives remained relevant for the IFAD target groups. However, the modalities of the involvement of the private sector as planned in the MEDEP design were not adapted to the on-going Maldives context.</p> <p>7. Even though the project objectives were fully in line with both the Maldives government priorities and IFAD strategic priorities in the Maldives, the lack or adaptation to the Maldives context and overestimation of willingness of the private sector to engage previously un-tested activity, making implementation of a 4P model overambitious, could have been accounted for in the design stage of the project. In addition, key interventions recommended by MTR were unsuccessful and as the Project Completion Report (PCR) indicates, the project missed the opportunity to relaunch at MTR, implicating the continued relevance of the project. Therefore, this PCRV concurs and proposes a rating of <i>moderately unsatisfactory (3)</i> as well.</p>	
<b>Effectiveness</b>	
<p>8. The project implementation was delayed and its operational effectiveness started only after MTR. Outreach was recorded for a total of 112 beneficiaries from 112 households, as compared to the logframe target of 3,000 households (4 per cent achieved). Technical components have recorded limited physical progress and they are not significant enough to drive the project towards the development objective: the achievement of expected outcomes in generating income and employment opportunities.</p> <p>9. The targets for Component 1 of Institutional strengthening included three sub-components namely: (i) regulatory framework; (ii) a national quarantine facility; and (iii) staff training for operating the quarantine facility. A National Mariculture</p>	2

<sup>2</sup> IFAD (2018). Republic of Maldives. Country Strategy Note. Main report and appendices.

<sup>3</sup> IFAD (2012). Mariculture Enterprise Development Project. Design Completion Report. Main Report and Annexes.

<sup>4</sup> IFAD (2018). Republic of Maldives. Country Strategy Note. Main report and appendices.

<sup>5</sup> IFAD (2017). Mariculture Enterprise Development Project. Supervision Report. Main report and appendices.

<b>PCR finding</b>	<b>Rating</b>
<p>Development Plan was developed and a National Aquatic Animal Health Management Strategy was formulated before MTR. However, the agreement for construction of the National Quarantine Facility (NQF) and Aquatic Animal Health Laboratory was only signed on 6 December 2017, with the civil work starting in 2018 due to the change of site allocated by the government, and the weather conditions. The development of Standard Operating Procedures and certification manuals were completed concurrently with the construction, and after its completion, necessary technical equipment was procured. Technical training was provided to staff, mainly in response to the operational and technical needs of the NQF, but the facility has not yet started its operations in quarantine and disease control services at the moment of PCR mission in October 2019. Therefore, key output targets were achieved, but with significant delay in the completion of construction of the NQF.</p> <p>10. The subcomponents of Component 2 of Mariculture value chain development, were: (i) mariculture production; (ii) technical assistance for establishing hatchery and nursery facilities; (iii) community capacity building for grow-out mariculture production; and (iv) a revolving credit fund for micro, small and medium entrepreneurs and individuals interested in various aspects of the mariculture value chain. Results for Component 2 were not generated; causes were multiple but mainly due to the lack of in-depth market analysis at design and basic understanding to support the proposed adjustments at MTR. Supply chain of mariculture industry was new in Maldives and the market did not seem to be of sizeable scale to attract sufficient smallholders engaging in supply-driven production. The pilots recommended by MTR and implemented thereafter were both unsuccessful; the grouper pilot project was terminated because of a high mortality rate, and for the sea cucumber pilot, the produced sea cucumber juveniles were of smaller size due to high density in the cages, and therefore did not meet export market requirements in terms of quality and quantity, nor was there a connection to external markets.</p> <p>11. For the sea cucumber pilot the private sector partner Barakathul Bahr Pvt. Ltd. would provide technical support and juveniles to beneficiaries, who could explore the opportunities of production and sales for both juveniles and adult sea cucumber. Negative results were reported on both the production and the partnership, both in terms of supplying juveniles to the farmers and finding a market for them. This ineffective partnership was one of the key reasons for the lack of success of the sea cucumber activity and ultimately resulted in the loans to the farmers for the sea cucumber activity being written off.</p> <p>12. The PCR concludes that programme effectiveness of MEDEP was unsatisfactory. This PCRV agrees and proposes a rating of <i>unsatisfactory (2)</i> as well.</p>	
<b>Efficiency</b>	
<p>13. The project recorded very low execution rates of annual work plan and budgets before MTR, which were 3 per cent, 2 per cent and 42 per cent respectively for the periods of 2013-14, 2015 and 2016. This was mainly due to the difficulty of starting up the Component 2 of value chain development, and the delayed implementation of construction of NQF which was caused by the change of construction site and slow civil works by the contractor. Disbursements were mostly made after MTR, where the civil work expenditures occurred for the construction of the NQF and the procurement of related equipment. Despite the two extensions of the project, the disbursement rate of MEDEP was 79 per cent at project completion.</p> <p>14. The internal rate of return at design was estimated at 59 per cent and turned out to be 3 per cent at the time of PCR, indicated that the project investments are economically not viable and highly vulnerable to both inherent and external market factors. As stated in the PCR, the assumptions used to estimate the MEDEP's benefits at Design were rather superfluous and unrealistic. The cost per beneficiary was US\$25,560, as compared to the design projection of US\$2,390.</p> <p>15. The PCR reports high management cost, as expenditures under Component 3 of Project management accounted for 30 per cent of total expenditures. IFAD's</p>	1

<b>PCR finding</b>	<b>Rating</b>
<p>expenditures recorded under Component 3 were 7 per cent, while government's expenditures were 63 per cent. With two extensions without progressing little in operational implementation, the project's overhead cost increased.</p> <p>16. The PCR carefully weighs the efficiency criteria and concludes that programme efficiency of MEDEP was highly unsatisfactory. This PCRV agrees and proposes a rating of <i>highly unsatisfactory (1)</i> as well.</p>	
<b>Rural poverty impact</b>	
<p>17. According to the log frame indicators, MEDEP's impact on rural poverty was to be measured by an increase of income, household assets and employment opportunities, and a reduction in prevalence of child malnutrition. As physical progress remained underachieved in majority, outcomes were not measurable at household level, while project contributions in generating income and employment were limited both in terms of quantity and quality. The enhanced capacity of the MOFMRA in regulating and managing the maricultural industry would likely take a longer time to bring about significant effects, as the milestone investment of constructing the NQF is yet to become operational.</p> <p>18. The project activities did not produce any measurable positive change in the incomes and physical and financial assets of the beneficiaries. The beneficiaries received limited capacity building and the focus was on a new production model with the expectation of an export market connection, which was not established. There was no investment in strengthening the beneficiaries' organization; the beneficiaries' disadvantaged control over economic relations and institutions have not been addressed and no change made in this regard.</p> <p>19. The efforts by the project to sensitize and mobilize producers into engaging in the pilot exemplifies the participatory nature of the pilot, which led to beneficiaries/producers committing themselves to the pilot by taking a loan of MVR50,000. Unfortunately, as results did not materialize as per the initial assumptions, the active interest of the beneficiaries declined. The loans disbursed to 105 beneficiaries through BML ended up being written off in February 2019, as little revenue was generated by the beneficiaries participating in the pilot to pay back the loans granted; assets such as cages and sea cucumbers were transferred to 101 beneficiaries through a signed transfer form as per recommendation of IFAD mission of February 2019.</p> <p>20. The project was not designed to directly contribute to increased food security, as the targeted products would have had their destination overseas. If the project would have impacted the financial situation of the beneficiaries positively, this might have led to strengthened food security and safety.<sup>6</sup> However, this was not the case.</p> <p>21. The project contributed to the drafting of a National Mariculture Development Plan, and the development of a National Aquatic Animal Health Management Strategy. Nevertheless, these policy-related achievements are yet to be reflected in the enhanced livelihoods of the smallholders.</p> <p>22. The relationship between island communities and their council has been strengthened, with council members fully engaging and expressing the concerns of their communities vis-à-vis the sea cucumber pilot. However, the delays and lack of concrete results of the pilot has led to some instances of dissatisfaction and lack of commitment to the pilot.<sup>7</sup></p> <p>23. The PCR rated the Rural Poverty Impact as unsatisfactory (2), and shows clearly a lack of positive impact. Even though there were also negative effects on beneficiaries due to the sea cucumber pilot, such as negative effects of loans on the household and their livelihoods, stress due to indebtedness, loss of productive time, co-financing, material and in labor, this PCRV agrees with the PCR rating of the Rural Poverty Impact and proposes a rating of <i>unsatisfactory (2)</i> as well.</p>	2

<sup>6</sup> IFAD (2016). Mariculture Enterprise Development Project. Mid-Term Review Report. Main report and appendices.

<sup>7</sup> IFAD (2018). Mariculture Enterprise Development Project. Supervision Report. Main report and appendices.

<b>PCR finding</b>	<b>Rating</b>
<b>Sustainability of benefits</b>	
<p>24. The project generated limited benefits and most of them will face issues of continuation at beneficiary level. The delayed completion of NQF meant it was not operational before the project completion, and thus not possible to appraise its prospective benefits in both financial and economic terms. However, the facility constructed is likely to last as part of the country's service support system but its operationality and sustainability prospects are yet to be proven.<sup>8</sup></p> <p>25. There is no evidence of increase in farmers' physical access to markets and beneficiary farmers' bargaining power did not experience improvement after their participation in the project activities. No capacity was built by the project regarding the rural producers' groups.</p> <p>26. Whilst the principles behind the partnership with sea cucumber producers, BML and the private sector partner were sound (effectively a 4P model), the 2018 Supervision mission observed some lapses in the contract agreement with the private sector partner (such as delay in provision of materials, quality of materials).<sup>9</sup> In addition, the assumptions of the sea cucumber pilot were not confirmed, and consequently producers have expressed frustration and a decline in confidence of the partnership/model. This may affect future partnership building efforts and impairs the sustainability.</p> <p>27. Despite this, the (international) market demand for sea cucumber is strong, and validates the Maldives interest to continue to develop this industry and MOFMRA has expressed its intention to continue to support the development of mariculture beyond the project.</p> <p>28. Drawing on the above highlights, this PCRV proposes a rating of <i>unsatisfactory</i> (2) with regards to the sustainability of benefits, in line with the assessment of the PCR.</p>	2
<b>B. Other performance criteria</b>	
<b>Innovation</b>	
<p>29. The PCR does not cover innovation in-depth and only states the following: "The project struggled during the whole course of implementation to progress but with little limited results in both financial and physical terms. Innovation did not really appear on the top of the implementation agenda. The design and adjustments of MTR did not suggest any innovative features to pursue neither." This is followed by an innovation rating of highly unsatisfactory (1).</p> <p>30. However, the MEDEP was designed to follow a value chain approach and support activities along the value chain to ensure the development of the mariculture industry on a sustainable basis. Whereas the value chain approach is not innovative in itself, and already introduced in the Fisheries and Agriculture Diversification Programme in the Maldives, MEDEP was targeting value chains in a relatively new mariculture subsector and many aspects of the value chain would have to be developed from afresh.<sup>10</sup> After MTR, the project has narrowed its focus in prioritizing sea cucumber production through a grow-out model involving the private sector and island producer households, with producers investing private financing through a loan product. This pilot has been a highly innovative undertaking in the context of the Maldives, and the lessons arising from the activity are critical towards informing and furthering sea cucumber production to a significant scale.<sup>11</sup></p> <p>31. Mariculture has been identified by the Government as a priority sector to be developed, despite limited experience of the sector. MEDEP represents the first initiative to lay the groundwork. Even though the project objectives were not</p>	3

<sup>8</sup> In finalizing this review, IOE was informed that the World Bank and the government have subsequently absorbed the Quarantine Facility under the *Sustainable Fisheries Resources Development Project*.

<sup>9</sup> IFAD (2018). Mariculture Enterprise Development Project. Supervision Report. Main report and appendices.

<sup>10</sup> IFAD (2012). Mariculture Enterprise Development Project. Design Completion Report. Main Report and Annexes.

<sup>11</sup> IFAD (2018). Mariculture Enterprise Development Project. Supervision Report. Main report and appendices.

<b>PCR finding</b>	<b>Rating</b>
attained, based on the above the PCRV rates the innovation aspect of MEDEP as <i>moderately unsatisfactory (3)</i> , two points higher than the PCR.	
<b>Scaling up</b>	
<p>32. The PCR briefly discusses the potential for scaling up stating the following: “The MOFMRA is optimistic for MEDEP’s exit and efforts are underway to synchronize the investments from the World Bank’s new project under design in order to provide continue support to those MEDEP’s sea cucumber producers who are willing to continue. MOFMRA and some private sector companies have shown interests in improving the quality of sea cucumber production and promote improved quality to the export markets. There would be potential for operational scaling up if market breakthrough took place and resulting in generating sales income for the producers.” This is followed by a rating of unsatisfactory (2).</p> <p>33. The PCRV would like to add that whilst the pilot tested a model of sea cucumber grow-out, the initial assumptions behind the model appeared to be inaccurate, and thus the model is not confirmed as suitable for scaling-up. Without verified and confirmed results of sea cucumber grow-out models, it is difficult to definitively assess the level and scope of interest to invest in the sea cucumber mariculture value chain. The project rather, has made the effort to lay a basic foundation, and with more time and with the continued commitment of the Government, there are opportunities for this industry to develop.<sup>12</sup> Overall, however, the level of scaling up anticipated in the design has not been achieved and the PCRV agrees with the PCR rating of <i>unsatisfactory (2)</i>.</p>	2
<b>Gender equality and women’s empowerment</b>	
<p>34. The project structure and the initial planning activities of MEDEP were gender sensitive according to the PCR, but it is unclear in what way. According to the design report, the Steering Committee of the project and the Project Implementation Unit (PIU) would be provided with gender sensitization and technical assistance to develop a Gender Action Plan for MEDEP and review it periodically so the project could maintain a focus on the inclusion of women and youth.</p> <p>35. A consultant from the Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN) has helped to change the Project log-frame to be gender sensitive. The project log-frame addressed its gender focus at outcome and output levels, and the indicators covered gender equality,<sup>13</sup> which for MEDEP meant that special effort would be made to include women through a gender action plan, leadership training for women as well as ensuring their inclusion in capacity building and enterprise development activities.</p> <p>36. A gender strategy and action plans have been developed but due to delays, were not actually implemented, for example in promoting women leadership and equitable access to development resources and opportunities. Among the 112 participating beneficiaries, 67 were female, or 60 per cent. However, the total outreach is not enough to generate significant effect in this regard.</p> <p>37. The PCR’s analysis of gender equality and women’s empowerment is concise, but the PCRV cannot establish that there is additional information on the matter. The PCR and this PCRV propose a rating of <i>moderately unsatisfactory (3)</i>.</p>	3
<b>Environment and natural resources management</b>	
<p>38. Given the fragile ecosystem and environmental protection sensitivity in Maldives, the MEDEP design made full reference to a number of guiding documents, such: (i) Environmental and Social Assessment Procedures approved in December 2009; (ii) Climate Change Strategy approved in April 2010; (iii) the ENRM Roll out plan developed in April 2011; and the (iv) ENRM Policy approved in May 2011. An EX-POST environmental assessment was conducted in October 2019 to ensure that the MEDEP interventions were carried out in compliance with the</p>	4

<sup>12</sup> IFAD (2018). Mariculture Enterprise Development Project. Supervision Report. Main report and appendices.

<sup>13</sup> IFAD (2017). Mariculture Enterprise Development Project. Supervision Report. Main report and appendices.



<b>PCR finding</b>	<b>Rating</b>
<p>IFAD operational policies and safeguard policies, in addition to conformity with environmental Legislation of the Government of Maldives.</p> <p>39. This assessment indicated that MEDEP modality and project design take sustainability and environmentally sound operations in to the forefront from a perception of planning, location, implementation and monitoring.<sup>14</sup> Additionally, it reports that the positive impacts are: (i) development of mariculture in the existing lagoon areas without creating any obstacles to the fauna and flora and causing any damages to the lagoon environments; (ii) using locally available juveniles for culture and locally made feed materials. The negative impacts are largely localized and tied to access restrictions that may be implemented in certain geographic locations, including the potential cumulative impact of many new micro, small, or medium-size cages and pens near environmentally sensitive areas.</p> <p>40. The MEDEP is not expected to have any adverse environmental impact. Most of the impacts are positive as they emanated from the use of “best practice” technology and management in both smallholder farm and Maldives fish processor production. Most interventions were determined by a participatory island or atoll planning process, and all activities were regularly monitored by program beneficiaries and field staff, who identified any environmental effect and provided proper mitigation measures.</p> <p>41. The PCR covers environment and natural resource management very briefly, stating that “the NQF is expected to provide quarantine services for imported species and apply related norms in aquatic animal disease control. This should be helpful in reducing the pressure on the marine natural resources base and contributing to the environmental protection in the country. The contribution will become measurable only once the NQF is operational”, followed by a rating of moderately unsatisfactory (3). In light of the findings of the ex-post environmental impact assessment as outlined above, this PCRV does not agree with this rating and assigns a rating of <i>moderately satisfactory</i> (4).</p>	
<b>Adaptation to Climate Change</b>	
<p>42. Climate change has become central to all discussions about food security in Maldives, as adverse effects affect crops and fish stocks and reducing land area as the sea level rises. According to the PCR, the design and MTR recognized Maldives as one of the countries highly vulnerable to climate change impacts, but operational intervention or awareness building in this respect were absent. The PCR also states that the project should have introduced awareness building and practical technical training with regard to climate change adaptation, instead of focusing on piloting the production of sea cucumber, which seems to be a low trophic level species. The PCRV considers this statement short-sighted, as the development of mariculture in the Maldives is an answer to the reduction of land availability due to rising sea levels, and can increase food security and livelihoods for island communities.</p> <p>43. The PCR also states that the MTR could have been an opportunity for orienting or reorienting the project resources to support the maricultural development with climate change sensitivity. The PCRV does not agree, as IFAD’s Guidelines for Integrating Climate Change Adaptation and Mitigation Options for Fisheries and Aquaculture into Project Design<sup>15</sup> have been used to cross-check the project’s approach to mitigating both the potential project-specific influences on climate change, as well as acting to counter external threats. By focusing MEDEP activities on low trophic levels species such as sea cucumber, the project would have had an overall positive contribution to climate change mitigation.<sup>16</sup></p> <p>44. The MEDEP design made full reference to a number of guiding documents, e.g. Environmental and Social Assessment Procedures approved in December 2009 and Climate Change Strategy approved in April 2010 and the design report</p>	3

<sup>14</sup> IFAD (2020). Mariculture Enterprise Development Project. Project Completion Report. Appendix 5 Environmental social and climate impact assessment (detailed analysis).

<sup>15</sup> IFAD (2014). Guidelines for Integrating Climate Change Adaptation into Fisheries and Aquaculture Projects.

<sup>16</sup> IFAD (2012). Mariculture Enterprise Development Project. Design Completion Report. Main Report and Annexes.

<b>PCR finding</b>	<b>Rating</b>
<p>demonstrates strong awareness and analysis of current and future climate risks of MEDEP. However, despite the fact that climate change adaptation was taken into consideration at design, results in this domain were constrained by the overall low level of achievements of the project. Weighing the above, this PCR rates Adaptation to Climate Change as <i>moderately unsatisfactory (3)</i>. This is one point above the PCR rating.</p>	
<b>C. Overall Project Achievement</b>	
<p>45. Even though the project has laid a foundation for further development of mariculture in the Maldives, the project performance was unsuccessful in terms of implementation of major interventions as provided under the design. A designed cost of US\$7.1 million to be co-financed by four partners fell into an actual available budget of US\$3.6 million by IFAD and government only, and from a target of reaching 3,000 households, only 112 beneficiaries from 112 households were covered at project completion. The implementation process went through a period of eight years (including two extensions) without the falling trend being stopped and corrected properly.</p> <p>46. Although the NQF is completed, at the time of the PCR mission it is not yet clear whether the facility will become fully operational. Quantifiable benefits from the sea cucumber and grouper outgrow pilots could not be accounted for and information and data relating to household level production, cost of production and volume sold are not available. Other major interventions proposed under the project such as large scale private sector participation and development and credit support to private sector agencies in fish production did not take off due to various factors, in particular lack of implementation capacity and an unsatisfactory role by the cooperating private sector agency. The expected goal of expanding livelihood opportunities and reducing vulnerability through enhanced income and employment opportunities for the target group was not achieved.</p> <p>47. In view of the above, this PCR rates overall programme achievement as <i>unsatisfactory (2)</i>, one point below the PCR rating.</p>	2
<b>D. Performance of Partners</b>	
<b>IFAD</b>	
<p>48. IFAD's overall support in facilitating MEDEP's achievements has been inadequate. Despite guidance from the Headquarters, Regional Division and country team in charge of support to Maldives regarding financial management, fiduciary aspects, procurement and the provided extensions to help the project complete before the completion date, MEDEP was not supported by the timely provision of relevant technical expertise. In addition, despite several proposals from the private sector, the willingness and capacity of the private sector to engage in this project was overestimated in the design.</p> <p>49. Even though the MTR was undertaken in a timely matter, and suggested pilots of new activities were implemented, the remaining time did not allow for field testing a solid production model for rapid replication, and the pilot projects were not successful.</p> <p>50. Previous projects, particularly the Fisheries and Agriculture Diversification Programme, suffered from slow and difficult implementation as well because of insufficient communication between IFAD and MOFMRA which delayed the resolution of implementation issues. This communication improved towards the end of the project with the strengthening of the relationship between the two parties, made possible by IFAD's operational decentralization and placement of the country team in the same sub-region and similar time zone, albeit very late in the project cycle.</p> <p>51. Although thirteen supervision and implementation support missions were conducted, IFAD did not adequately identify the problems experienced by the project and the resulting risks to project performance. With the exception of one</p>	2

<b>PCR finding</b>	<b>Rating</b>
<p>mission in 2016, all supervision missions maintained an overall rating of moderately satisfactory (4) for project implementation performance and likelihood of achieving the development objective. This overall rating undermined the alert signals from the monitoring and evaluation (M&amp;E) system that continuously recorded and reported little progress in both physical and financial terms, leading to missed opportunities for effectively assisting the operational decision making and introducing timely and necessary corrective measures.</p> <p>52. Based on the aforementioned, this PCRV agrees with the PCR and rates IFAD's performance as <i>unsatisfactory (2)</i>.</p>	
<b>Government</b>	
<p>53. A baseline survey was conducted at project start and an outcome survey was underway during the PCR mission. However, due to the limited scale of implementation, it would be challenging to report project achievements against baseline levels.</p> <p>54. The financial contribution of the government exceeded the planned amount of the original commitment. The government contributions were in the forms of direct funding in civil works, salaries and allowances, operations and maintenance, duties and tax exemption and in-kind contribution such as office space and utilities. The government also took proactive action to use its procurement arm of the State Trading Organization to help ease the difficulties encountered in project procurement.</p> <p>55. The quality of Financial Management of MEDEP improved gradually during the implementation. The internal controls were improved and a semi-automated accounting system was implemented. Despite this, issues were continuously raised regarding internal controls, contract management and maintenance of adequate supporting documents on transactions. The MEDEP staffing was not sufficient to support the required tasks; the lack of PIU experience in financial management and only one accountant in charge continued to constrain the project's capacity until the project completion.</p> <p>56. Bi-annual and annual reports have been provided by the PIU on time. The M&amp;E system applied the formats as required and output and activity level operations were periodically updated, and were submitted to IFAD in accordance with the reporting requirements. Despite that, the tools and systems were in place, collection and reporting of M&amp;E data and information was severely lagging. In part, this was due to the distance between the PIU and the project site. The lack of reliable M&amp;E reporting stemming from the beneficiaries of the sea cucumber pilot, which was critical in order to verify/validate the sea cucumber grow out model, undermined the effectiveness of the M&amp;E system.</p> <p>57. The government had a key role to play in facilitating the partnership building between the project, BML and the private sector to help MEDEP in exploring potential openings of market access. The desired outcome was not achieved. In addition, the non-renewal of PIU project director contract and the high turn-over of PIU staff impacted project management and coordination, and slowed down implementation. While it is acknowledged that the political context and high-turnover of project staff stabilized after 2018, and that the government subsequently assigned staff to provide dedicated support to the PIU in specialized areas, this came late and most of the project implementation period had already elapsed.</p> <p>58. The PCR rates the Government's performance as moderately unsatisfactory (3). Based on the presented evidence, this PCRV concurs and aligns its rating to <i>moderately unsatisfactory (3)</i>.</p>	3

## IV. Assessment of PCR quality

<b>PCR finding</b>	<b>Rating</b>
<b>Scope</b>	
59. The PCR followed the outline presented in IFAD's Project Completion Review Guidelines and provides substantive and relevant content for most chapters. Relevance, effectiveness and efficiency are detailed and inclusive of all relevant information. However, the analyses of innovation, adaptation to climate change, and environment and natural resource management lack sufficient depth. Therefore, this PCRV rates the scope of the PCR as <i>moderately satisfactory</i> (4).	4
<b>Quality</b>	
60. The PCR process was inclusive of a variety of stakeholders, as can be seen on the list of persons met during the PCR mission (Appendix 8).	5
61. The mission used a mix of quantitative and qualitative tools in order to form an informed judgment on overall project performance and results. Primary sources of information included project reports and documents (supervision reports, MTR report, progress reports, annual work plans and budget, etc.), M&E and Management Information System data (including Results and Impact Management System data), any surveys or specific studies undertaken by the project (including the Results and Impact Management System impact survey), PIU and service providers' records and the records of the groups supported by the project. Secondary sources included national and local statistics, and other donors' statistics. In order to strengthen the analysis, findings were triangulated.	
62. A PCR review workshop was held on 13 October 2019 in Male. The workshop gathered project's Steering Committee Members, sea cucumber grow-out farmers, sea cucumber hatchery operators, representatives of island councils, Community Mobilization Officers, staff of MEDEP PIU, technical coordinator of MEDEP, members of IFAD mission and the project completion consultant.	
63. This PCRV rates the quality of the PCR as <i>satisfactory</i> (5).	
<b>Lessons</b>	
64. A number of lessons have been formulated in key areas such as design, implementation, operational management and M&E support. These are properly elaborated in the Executive Summary and based on the evaluation findings. However, under the subheading Lessons learned and knowledge generated, only three lessons are covered, among which a lesson that is not part of the Executive Summary, namely "Avoiding piloting of new activities from MTR." Although the sea cucumber and grouper pilots that were implemented after MTR were not successful, this PCRV believes that this lesson is not specific enough. The PCRV suggests that "Avoiding piloting of new activities without proper field testing," would be more appropriate.	5
65. Overall, the lessons presented by the PCR, irrespective of their positioning in the document, were pertinent and this PCRV rates the lessons of the PCR as <i>satisfactory</i> (5).	
<b>Candour</b>	
66. For the most part, the PCR is well written and the narrative is objective, with ratings coherent with the narrative. Both positive and negative results have been reported. However, in the paragraphs that lack sufficient rigor (see Scope), the tone of voice is less objective, stating for example "Innovation did not really appear on the top of the implementation agenda". In addition, in the paragraph covering Adaptation to climate change, the PCR does not report the findings objectively and instead recommends what should have been done according to the author: "The project should have introduced broad awareness building and practical technical training in relationship with climate change adaptation,	4

<p>instead of focusing on piloting the production of sea cucumber, which seems to be a low trophic level species". Subjective statements such as these have implications on the overall quality of the PCR.</p> <p>67. Considering the above, this PCRV rates the Candour of the PCR as <i>moderately satisfactory (4)</i>.</p>	
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## V. Final remarks

<p><b>Issues for IOE follow up (if any)</b></p>	
<p>68. No issues have been identified for follow up by IOE.</p>	

## Definition and rating of the evaluation criteria used by IOE

Criteria	Definition *	Mandatory	To be rated
<b>Rural poverty impact</b>	Impact is defined as the changes that have occurred or are expected to occur in the lives of the rural poor (whether positive or negative, direct or indirect, intended or unintended) as a result of development interventions.	X	Yes
	<i>Four impact domains</i>		
	<ul style="list-style-type: none"> <li>Household income and net assets: Household income provides a means of assessing the flow of economic benefits accruing to an individual or group, whereas assets relate to a stock of accumulated items of economic value. The analysis must include an assessment of trends in equality over time.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Human and social capital and empowerment: Human and social capital and empowerment include an assessment of the changes that have occurred in the empowerment of individuals, the quality of grass-roots organizations and institutions, the poor's individual and collective capacity, and in particular, the extent to which specific groups such as youth are included or excluded from the development process.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Food security and agricultural productivity: Changes in food security relate to availability, stability, affordability and access to food and stability of access, whereas changes in agricultural productivity are measured in terms of yields; nutrition relates to the nutritional value of food and child malnutrition.</li> </ul>		No
	<ul style="list-style-type: none"> <li>Institutions and policies: The criterion relating to institutions and policies is designed to assess changes in the quality and performance of institutions, policies and the regulatory framework that influence the lives of the poor.</li> </ul>		No
<b>Project performance</b>	Project performance is an average of the ratings for relevance, effectiveness, efficiency and sustainability of benefits.	X	Yes
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, institutional priorities and partner and donor policies. It also entails an assessment of project design and coherence in achieving its objectives. An assessment should also be made of whether objectives and design address inequality, for example, by assessing the relevance of targeting strategies adopted.	X	Yes
Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	X	Yes
Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.	X	Yes
Sustainability of benefits	The likely continuation of net benefits from a development intervention beyond the phase of external funding support. It also includes an assessment of the likelihood that actual and anticipated results will be resilient to risks beyond the project's life.	X	Yes
<b>Other performance criteria</b>			
Gender equality and women's empowerment	The extent to which IFAD interventions have contributed to better gender equality and women's empowerment, for example, in terms of women's access to and ownership of assets, resources and services; participation in decision making; work load balance and impact on women's incomes, nutrition and livelihoods.	X	Yes
Innovation	The extent to which IFAD development interventions have introduced innovative approaches to rural poverty reduction.	X	Yes
Scaling up	The extent to which IFAD development interventions have been (or are likely to be) scaled up by government authorities, donor organizations, the private sector and others agencies.	X	Yes
Environment and natural resources management	The extent to which IFAD development interventions contribute to resilient livelihoods and ecosystems. The focus is on the use and management of the natural environment, including natural resources defined as raw materials used for socio-economic and cultural purposes, and ecosystems and biodiversity - with the goods and services they provide.	X	Yes
Adaptation to climate change	The contribution of the project to reducing the negative impacts of climate change through dedicated adaptation or risk reduction measures.	X	Yes

<i>Criteria</i>	<i>Definition</i> *	<i>Mandatory</i>	<i>To be rated</i>
<b>Overall project achievement</b>	This provides an overarching assessment of the intervention, drawing upon the analysis and ratings for rural poverty impact, relevance, effectiveness, efficiency, sustainability of benefits, gender equality and women's empowerment, innovation, scaling up, as well as environment and natural resources management, and adaptation to climate change.	X	Yes
<b>Performance of partners</b>			
• IFAD	This criterion assesses the contribution of partners to project design, execution, monitoring and reporting, supervision and implementation support, and evaluation. The performance of each partner will be assessed on an individual basis with a view to the partner's expected role and responsibility in the project life cycle.	X	Yes
• Government		X	Yes

\* These definitions build on the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) Glossary of Key Terms in Evaluation and Results-Based Management; the Methodological Framework for Project Evaluation agreed with the Evaluation Committee in September 2003; the first edition of the Evaluation Manual discussed with the Evaluation Committee in December 2008; and further discussions with the Evaluation Committee in November 2010 on IOE's evaluation criteria and key questions.

## Rating comparison<sup>a</sup>

<i>Criteria</i>	<i>Programme Management Department (PMD) rating</i>	<i>IOE Project Completion Report Validation (PCRVR) rating</i>	<i>Net rating disconnect (PCRVR-PMD)</i>
<b>Rural poverty impact</b>	2	2	0
<b>Project performance</b>			
Relevance	3	3	0
Effectiveness	2	2	0
Efficiency	1	1	0
Sustainability of benefits	2	2	0
<b>Project performance<sup>b</sup></b>	2	2	0
<b>Other performance criteria</b>			
Gender equality and women's empowerment	3	3	0
Innovation	1	3	2
Scaling up	2	2	0
Environment and natural resources management	3	4	1
Adaptation to climate change	2	3	1
<b>Overall project achievement<sup>c</sup></b>	<b>3</b>	<b>2</b>	<b>-1</b>
<b>Performance of partners<sup>d</sup></b>			
IFAD	2	2	0
Government	3	3	0
<b>Average net disconnect</b>			<b>+0.33</b>

<sup>a</sup> Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.

<sup>b</sup> Arithmetic average of ratings for relevance, effectiveness, efficiency and sustainability of benefits.

<sup>c</sup> This is not an average of ratings of individual evaluation criteria but an overarching assessment of the project, drawing upon the rating for relevance, effectiveness, efficiency, sustainability of benefits, rural poverty impact, gender, innovation, scaling up, environment and natural resources management, and adaptation to climate change.

<sup>d</sup> The rating for partners' performance is not a component of the overall project achievement rating.

### Ratings of the project completion report quality

	<i>PMD rating</i>	<i>IOE PCRVR rating</i>	<i>Net disconnect</i>
Candour	n.a.	4	n.a.
Lessons	n.a.	5	n.a.
Quality (methods, data, participatory process)	n.a.	5	n.a.
Scope	n.a.	4	n.a.
Overall rating of the project completion report	n.a.	4	n.a.

Rating scale: 1 = highly unsatisfactory; 2 = unsatisfactory; 3 = moderately unsatisfactory; 4 = moderately satisfactory; 5 = satisfactory; 6 = highly satisfactory; n.p. = not provided; n.a. = not applicable.



## **Abbreviations and Acronyms**

4Ps	Public private producer partnership
BML	Bank of Maldives Limited
ENRM	Environment and Natural Resource Management
IFAD	International Fund for Agriculture Development
IOE	Independent Office of Evaluation
MEDEP	Mariculture Enterprise Development Project
M&E	Monitoring and Evaluation
MOFMRA	Ministry of Fisheries, Marine Resources and Agriculture
MTR	Mid-Term Review
NQF	National Quarantine Facility
PIU	Project Implementation Unit

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