



Terminal evaluation  
of the project  
“Strengthening the  
adaptive capacity to  
climate change in the  
fisheries and aquaculture  
sector of Chile”

**Project Evaluation Series  
12/2021**

**Terminal evaluation of the project  
“Strengthening the adaptive capacity to  
climate change in the fisheries and  
aquaculture sector of Chile”**

**GCP/CHI/039/SCF  
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## **Abstract**

The project “Strengthening the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile”, with support from the Global Environment Facility (GEF), sought to reduce the vulnerability and increase the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile. Implemented in four remote coves, the project was geared towards coastal communities through high quality in-person participatory capacity-building sessions, raising awareness about topics such as productive diversification, adaptation to climate change, aquaculture and tourism.

Despite there being several changes in civil servants and government authorities, as well as certain delays due to the COVID-19 pandemic and civil unrest in the country, the project managed to progress towards the formulated objective, was relevant to the actual situation and suited to the needs of the beneficiaries. Lessons learned were also generated to improve the formulation and management of this type of project in the future. Notably, the evaluation found that climate change adaptation workshops have a high potential for replicability across different geographic settings in the region.



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## **Abbreviations and acronyms**

CCA	Climate change adaptation
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
IFOP	Fisheries Development Institute
M&E	Monitoring and evaluation
MTR	Mid-term review
OED	FAO Office of Evaluation
ProDoc	Project document
SUBPESCA	Undersecretariat of Fisheries and Aquaculture

## Executive summary

1. This is the executive summary of the final evaluation report for the project “Strengthening the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile” - GCP/CHI/039/GFF - (hereinafter, the “project”).
2. The evaluated project was implemented between July 2017 and July 2021 and received a total of USD 2 500 000 in financing from the Special Climate Change Fund managed by the Global Environment Facility (GEF); it was implemented, financially executed and co-financed by the Food and Agriculture Organization of the United Nations (FAO) in association with the Undersecretariat of Fisheries and Aquaculture (SUBPESCA) of the Chilean Ministry of the Environment. Jointly, these institutions pledged a total of USD 15 737 793 in co-financing.
3. The aim of the evaluation was to conduct an independent assessment of the strategic relevance, effectiveness, efficiency, sustainability, inclusion of cross-cutting perspectives (gender and participation of indigenous communities), and the factors that affected project performance. This was done for the purposes of reporting to the donor and identifying lessons learned and recommendations aimed at improving the potential impact of this initiative and possible future initiatives.
4. It is important to emphasise that the timeline of this evaluation spanned the period elapsing from the project start date (July 2017) to its completion (31 March 2021). For this reason, it was not possible to review and analyse the actions and outputs (some of which were fundamental) generated after the end of the information gathering period, that is, in April, May and June 2021. However, every effort has been made to include the most relevant milestones when drafting the latest version of this document.

## Key findings broken down by criterion and evaluation questions

### Strategic relevance

**Question 1.** *Have the project outcomes been (and do they remain) aligned with GEF's strategies, national priorities, FAO's Country Programming Framework and the beneficiaries' needs?*

5. The project was coherent with the strategic priorities of the Republic of Chile in terms of climate change adaptation in the fisheries and aquaculture sector and, particularly, its timing and programming was aligned with the implementation and/or design of planning instruments linked to the effects of climate change in the sector.
6. Furthermore, the evaluation showed that the initiative was coherent with Objectives 2 and 5 of the FAO Strategic Framework and aligned with Objectives 1 and 2 of the GEF-6 Strategy for adaptation to climate change.
7. As regards the needs expressed by the beneficiary communities and individuals (pilot cove fishers and gatherers), the evaluation concludes that the project design satisfactorily fulfils the interests of this group through skills training and access to knowledge about the effects of climate change, the production and interpretation of environmental information and the search for productive diversification alternatives.

## Effectiveness

**Question 2.** *What outcomes (both intended and unintended) has the project achieved and to what extent did these contribute to the achievement of the project's environmental and development objectives? What achievements and outcomes have been reached in each component?*

8. The progress made in achieving the formulated objective is satisfactory. The evaluation team has found that the project contributed decisively to improving and strengthening the institutional and community capacity to adapt to climate change (project objective). This assertion is reflected in a technical execution of nearly 100 percent and in the contributions made by deploying the programme, particularly components 1 and 2.
9. At the institutional level (component 1), public institutions were found to have been strengthened as a result of the project. Within their respective working environments, national and regional government authorities and officials have developed the capacity to address the topics of climate change, adapting to its effects and vulnerability. These effects were enriched by creating spaces for governance and by launching a system that provides access to systematic information on fishing, aquaculture and climate change.
10. At the community level (component 2), the project also displays satisfactory outcomes. The participating communities developed adaptive capacities and progressed towards the establishment of more resilient fishery and aquaculture systems; this effect was accomplished through an increase in their knowledge about the effects of climate change. They were trained to generate (and interpret) environmental information and learned about and implemented productive diversification practices.
11. As regards awareness-raising among local coastal communities (component 3), the evaluators observed that, although this effect was achieved, it was not due to the implementation of the activities planned for this component but rather took place mainly as a result of the technical execution of components 1 and 2.
12. This finding can be accounted for, on the one hand, as a problem in the formulation of the outcome and in the internal coherence of its intervention logic and, on the other, due to shortcomings in effectiveness during the implementation of the actions planned for this component, i.e. some of the activities developed did not translate into outputs and effects that contributed to the project objective. Despite these difficulties, the evaluation team found that good quality communication materials were developed, and dissemination and awareness-raising actions were undertaken in the final months of the project (June 2021), thus compensating for this shortcoming to a certain extent.

## Efficiency

**Question 3.** *How have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives? Are there any aspects that deserve subsequent monitoring?*

13. The large amount of responsibility and the high-quality standards to which the team were justifiably subject led to a work overload, delays and a reduced capacity to provide suitable responses. As a result of this situation, the initial human resources (six permanent professionals) had to be supplemented (after the mid-term review) with three additional people to implement the intervention execution and properly achieve the expected outputs and outcomes.

14. During the implementation cycle, there were changes in the project team members and institutional partners. This situation altered the flow of implementation of activities and the institutional appropriation of the project. At team level, this situation called for a programming inception period and time to adapt to the styles and ways of working of the new team members. At institutional level there was a change in ministry authorities and project management, which required the scopes of the initiative to be adjusted and the operational, technical and political commitments undertaken by their predecessors to be renewed.

## **Sustainability**

**Question 4.** *How sustainable are the outcomes achieved at an environmental, social, institutional and financial level? Are there any risks that could affect the sustainability of the project achievements and effects?*

15. The project has prepared a sustainability strategy. This instrument is a fundamental input for guiding public decision-making regarding the possibilities of scalability and replication of the actions, and for ensuring the continuity of the processes fostered as a result of project implementation. Adherence to this strategy (in progress) by the institutional partners is essential for successful future implementation.
16. To increase the likelihood of success, the evaluators consider it necessary to progress in parallel in the design of a roadmap focused on permanently strengthening the inclusion of the topic of climate change in the organisational structure of SUBPESCA, so that this body (division, unit or other) is the one that leads and provides programming coherence to the initiatives for adapting the sector as set out in the sustainability strategy designed.
17. In addition, sufficient information from diverse stakeholders was gathered and verified in the evaluation process to assert that some of the project outcomes and outputs will remain institutionally and financially sustainable after the project is finished. These are: i) the interoperable information system, which will receive funding for operation for at least one year; ii) the interinstitutional working groups, which have managed to become anchored to the Regional Climate Change Committees; iii) the capacities developed by civil servants, which have been appropriated and integrated into their daily work; iv) the production of documentation that, if managed properly, could contribute significantly to increasing the impact, scalability and sustainability of the project; v) the capacities developed by the beneficiary groups, which have managed to appropriate the knowledge and independently reflect on the impacts of climate change on their communities.

## **Factors that affected project performance**

**Question 5.** *What are the main factors (design, execution, monitoring, co-financing and communication) that influenced project performance?*

### **Project design**

**Rating:** Moderately Satisfactory.

18. With the exception of component 3, the design of the project outcome framework reviewed shows vertical logic (chain of outputs-outcomes-objectives) that is consistent with actions that were in tune with the need to strengthen the adaptive capacity of the fisheries and aquaculture sector in Chile. The horizontal logic included outcome indicators that were well formulated and aligned with the GEF Programming Strategy on Adaptation to Climate Change, although there were weaknesses in the proposed verification methods. Despite the weaknesses identified, there were no substantial changes in the project design during the execution of the project.

### **Monitoring and evaluation system**

19. Although the project designed and launched a monitoring and evaluation system that contains the elements needed to successfully fulfil its aim, this action was taken late, in response to a recommendation in the mid-term review. During the initial years of project execution, this affected the quality of the services that monitoring and evaluation systems can potentially offer, such as facilitating appropriate decision-making in terms of operations and strategy by the team and coordinators, acting as a tool for measuring and internally and externally communicating achievements and progress, incorporating lessons learned, systematising good practices, giving input to the communications area and providing support to knowledge management, among other services.

### **Project implementation**

20. FAO was responsible for the implementation and financial execution of the project. The rating in this evaluation, as regards the functions carried out by the Organization, is satisfactory. FAO and the project team, acting in agreement and in coordination with management and the steering committee, managed to ensure that the financial resources were correctly used and accounted for, and that programming management and project supervision were in line with the expected standards.

### **Financial management and co-financing**

21. Financial management was handled by FAO Chile. Their experience, entailing a complete understanding of administrative procedures, ensured quality performance with no major issues.
22. With respect to co-financing, by June 2020, the latest date recorded, of the agreed total (USD 15 824 398), more than 99 percent (USD 15 683 283) had been materialised. This figure indicates that it is highly likely that the total amount pledged in the project budget formulation will be reached or even exceeded.

### **Stakeholder participation**

23. The project partners and beneficiaries, especially those at regional and local level, actively participated in the project execution, gained appropriate access to information about the initiative and had fluid dialogue with other stakeholders such as universities and certain government institutions. Stakeholder participation and communication at the national level gradually increased and improved in the latter months of implementation.

### **Knowledge management**

24. The project produced and documented a large amount of knowledge. These materials (manuals, pamphlets, scientific dissemination articles, guidelines, practice reports and consulting reports, to name a few) have high quality standards and could, potentially, contribute to strengthening the adaptive capacity to climate change of the fisheries and aquaculture sector in Chile and to the replicability of the actions and sustainability of the initiative. However, the project did not manage to drive successful systematic processes for storing, disseminating and spreading the knowledge generated, limiting its use to a small group of people instead of placing it in the hands of the target audiences for awareness-raising and learning.

## **Cross-cutting perspectives**

**Question 6a. Gender.** *To what extent have gender-sensitive considerations been taken into account in the design and implementation of the project?*

25. When the project was designed (2015–2016), the FAO gender equality policy (drafted in 2013) remained in force. However, due to shortcomings in awareness of the policy among the project team, this instrument was not deemed an input capable of guiding its formulation and subsequent implementation. Thus, no diagnosis of gender gaps was made and no specific strategy to reduce them was drawn up.
26. Although there was no gender strategy per se, during project execution, positive effects were generated for the female beneficiaries. The evaluation found a high rate of female participation in the activities, progress in productive and organisational empowerment and in economic improvements made by some of the women. Likewise, women showed high rates of appropriation of the practices fostered and of the activities in which they were trained through the project.

**Question 6b. Participation of indigenous communities.** *To what extent have the rights of indigenous communities been respected and promoted in the design, decision-making and implementation of the project?*

27. Members of three indigenous communities participated in the project: Manzano, Quebraola and Puntilla de Quillón. All of them are located in the El Manzano-Hualaihué pilot cove. The Chilean government formalised and acknowledged these communities after the project had begun, so the Manual on Free, Prior and Informed Consent was not applied prior to implementation. However, after the project was formulated, these three indigenous communities were informed, consulted and invited to participate in the project, although some of their members were already active participants in the project. The three communities agreed to continue participating in their capacity as indigenous fishers and gatherers.

## **Conclusions**

**Conclusion 1. Strategic relevance:** The project design and implementation are closely aligned and relevant. The components, outcomes and outputs were consistent with GEF's strategic priorities, FAO's objectives, the sector-specific policies of the State of Chile and the needs of the beneficiary groups. The strong pertinence created a setting that was conducive to ensuring high levels of interest and participation among the stakeholders, in addition to providing a context in which institutional appropriation and project sustainability were likely to occur.

**Conclusion 2. Effectiveness – Project objective:** The evaluation concludes that the actions implemented, the outputs attained and the outcomes achieved prompted a substantial contribution to the improvement and strengthening of the capacity of institutions and the community to adapt to climate change in Chile (project objective). This effect is reflected in the technical execution of the activities and in the achievement of the goals formulated (nearly 100 percent). The main contribution stems from the execution of the programme in components 1 and 2. Although good levels of implementation were achieved in the other two components, their contribution is significantly lower.

**Conclusion 3. Effectiveness – Component 1: Institutional strengthening:** In their respective working environments, the government authorities and officials were found to have developed capacities and improvements in using tools to address the topic of climate change, adaptation to its effects and vulnerability. This outcome – accompanied by the creation of spaces for governance that led to instances of intersectoral coordination and cooperation, particularly at the local and regional levels, in addition to the launch of information systems on fishing, aquaculture and climate change that will facilitate evidence-

based public and private decision-making – is an unequivocal sign that the project managed to strengthen the capacity of public institutions focused on effective adaptation to climate change.

**Conclusion 4. Effectiveness – Component 2:** The outcomes in terms of capacity-building to adapt to climate change, environmental monitoring and economic diversification practices confirm that the project significantly contributed to improving the adaptive capacity to climate change of the local fisheries and aquaculture sector in all four pilot coves. This capacity-building helped establish more resilient fishing and aquaculture systems, affecting women and young people in particular.

**Conclusion 5. Effectiveness – Component 3: Communications** The communications component showed weaknesses in terms of both design and implementation. The activities conducted did not achieve the expected outcome, namely, to raise awareness and prepare local coastal communities to adapt to climate change in the fisheries and aquaculture sector.

The aforementioned aim was accomplished primarily as a result of the implementation of components 1 and 2. According to the evaluation, this phenomenon is due to a design flaw in the formulation of the intervention logic of component 3 and to a weak communication roll-out, in the sense of failing to link this aspect to the project approach, objectives and team in an appropriate manner and at the right time.

**Conclusion 6. Effectiveness – Component 4: Monitoring and evaluation:** The monitoring and evaluation (M&E) system was designed and launched late. However, during the stage prior to its creation the project adequately met its accountability obligations in relation to the donor and to FAO. The problem caused by this late implementation was related to a reduced capacity to generate inputs for appropriate decision-making and the necessary connection to communications and knowledge management.

**Conclusion 7. Efficiency:** During the course of project implementation, certain circumstances had an impact on the project flow (changes in the project team and partner institutions, mobility restrictions for health and social reasons and periods of work overload). However, in light of the outcomes, the volume and quality of the outputs generated, the synergies created, the possibilities in place for sustainability and a financial execution that was orderly and nearly 100 percent, the evaluation team consider that the project efficiency is satisfactory.

**Conclusion 8. Cross-cutting perspectives: Gender:** Despite the fact that the project design did not include an explicit strategy aimed at contributing to the gender equality objectives contained in the institutional policies of FAO and GEF, positive effects were found in closing the gender gap as a result of women's participation in the project. These effects were mainly evidenced in the increased access and decision-making power over natural resources by female participants and the economic benefits that some of them are experiencing as a result of the activities developed within the project framework.

**Conclusion 9. Cross-cutting perspectives: Indigenous communities:** The project did not consider a strategy for explicitly informing and including indigenous communities. However, the project activities were respectful of their inclusion. Through an appropriate inter-cultural dialogue, pertinent, transparent information was shared, they were invited to join the project and their consent was sought.

**Conclusion 10. Sustainability:** The interest and commitment shown by the government authorities and officials, the strong possibility of adopting the designed sustainability strategy and the institutional conviction of the need to strengthen the way of coping with climate change in the sector at the organizational level, through SUBPESCA, generate a favorable setting and justify a good outlook for the project's sustainability.

**Conclusion 11. Community sustainability:** Although the activities implemented in the project were highly rated by the beneficiaries, their interest in and commitment to the sustainability of these activities is varied. Whereas some beneficiaries are highly committed to continuing with some or several of the activities for which they were trained, others expect to be able to assess this aspect after the pandemic has ended and some do not foresee an independent execution of the items learned.

## Recommendations

**Recommendation 1. To FAO Chile, SUBPESCA and the Ministry of the Environment, regarding the sustainability and scalability of the project.** Design a roadmap with objectives for the short term (sustainability strategy), medium and long term aimed at bolstering inter-ministerial and interregional collaboration and inclusion of the topic of climate change in the organizational structure of SUBPESCA to enable this body to lead and provide programming coherence to the adaptation initiatives in the sector.

**Recommendation 2. To FAO, SUBPESCA Development Institute, regarding knowledge management.**

**To FAO.** Design and launch a national and/or regional archive in an attractive format in which to save and share the documentation produced in this project and, potentially, in other projects.

**To the Fisheries Development Institute.** Investigate the possibility of having differentiated formats for access and display of the data linked to the interoperable system: one for people with scientific knowledge and interest, and a simplified version for fishers and the general public.

**To SUBPESCA.** Make a website available to the project in order to improve the visibility of the outcomes achieved and to exchange information, experiences and the knowledge generated in the initiative.

**Recommendation 3. To FAO, regarding the timing of sustainability strategies.** Consider preparing sustainability strategies in the design of the projects and launching them from the outset.

**Recommendation 4. To FAO, on project communications.** Strengthen the support provided by the communications area of the FAO Representative in Chile during the initial project phases.

Recommendation 5. To FAO, SUBPESCA and the Ministry of the Environment, on the exchange and retrieval of successful experiences. Create audiovisual capsules that describe the process, effects and possible impacts that a few or several of the experiences promoted in each of the pilot coves had on the lives of the beneficiaries.

**Recommendation 6. To FAO, on project monitoring and evaluation.** Allocate specialized personnel to provide constant support and/or to take charge of the design, launch and implementation of the monitoring and evaluation systems of the projects implemented.

**Recommendation 7. To FAO Chile, on mainstreaming the gender-sensitive approach in projects.** Include in the project design the development of a gender-sensitive strategy aligned with the specific needs of the setting and following the FAO and GEF gender and policy guidelines.

**Suggestion:** Include specialized profiles and accompany the inclusion of the gender perspective with a communication strategy, training for the technical team and a sufficient budget allocation.

## GEF evaluation criteria ratings table

Evaluation criterion	Rating	Brief comments
<b>A. STRATEGIC RELEVANCE</b>		
General reference to the project	HS	See Section 3.1: Findings 1 and 2 and Section 3.2, Finding 5.
A1.1. Alignment with the strategic priorities of GEF and FAO.	HS	See Section 3.1: Finding 1.
A1.2. Relevance for the national, regional and global priorities and for the beneficiaries' needs.	HS	See Section 3.1: Finding 2.
A1.3. Complementarity with other interventions in progress.	S	See Section 3.1: Finding 1 and Section 3.2: Finding 5.
<b>B. EFFECTIVENESS</b>		
B1. General evaluation of the project outcomes.	S	See Section 3.2: Findings 5 to 11.
B1.1 Delivery of the project outputs.	S	See Section 3.2: Findings 4 to 11 and Appendix 5: Outcomes matrix.
B1.2 Progress towards the project outcomes and objective.	S	See Section 3.2: Finding 4.
Outcome 1.1. Strengthened public and private institutional capacity to implement/improve adaptation to the effects of climate change in the fisheries and aquaculture sector at national and local levels.	HS	See Section 3.2: Findings 5, 6, 7.
Outcome 2.1. Stakeholders have established more adaptive and resilient fishing and aquaculture systems and increased their capacity to adapt and invest in innovative adaptation technologies at local level.	S	See Section 3.2: Findings 8, 9 and 10.
Outcome 3.1. Local coastal communities are aware, knowledgeable and prepared to cope with climate change effects on fisheries and aquaculture.	MU	See Section 3.2: Finding 11.
Outcome 4.1 Project implemented on a results-based management approach.	MS	See Section 3.5.2: Finding 20.
B1.3 Likelihood of the impact.	S	See Section 3.2: Findings 5 to 11 and Section 3.4 Sustainability: Findings 16 to 18.
<b>C. EFFICIENCY</b>		
C1. Efficiency.	S	See Section 3.2: Findings 12 to 15.
<b>D. SUSTAINABILITY OF THE PROJECT OUTCOMES</b>		
D1. General likelihood of risks to sustainability.	ML	See Section 3.4: Findings 16 to 18.
D1.1. Financial risks.	ML	See Section 3.4: Finding 19.
D1.2. Socio-political risks.	ML	See Section 3.4: Finding 19.
D1.3. Institutional and governance risks.	ML	See Section 3.4: Finding 19.
D1.4. Environmental risks.	L	See Section 3.4: Finding 19.
D2. Acceleration and reproduction.	ML	See Section 3.4: Finding 19.
<b>E. FACTORS THAT AFFECTED PROJECT PERFORMANCE</b>		
E1. Project design and maturity.	MS	See Section 3.5.1 Finding 20.
E2. Quality of the project implementation.	S	See Section 3.5.3 Finding 22.
E2.1 Quality of the implementation of the project by FAO (BH, LTO, PST, etc.).	S	See Section 3.5.3 Finding 22.
E2.1 Supervision of the project (PSC, project working group, etc.).	S	See Section 3.5.3 Finding 22.
E3. Quality of the project execution.	S	See Section 3.5.3 Finding 22 and Section 3.5.5. Finding 23.

<b>Evaluation criterion</b>	<b>Rating</b>	<b>Brief comments</b>
E4. Financial management and co-financing.	S	See Section 3.5.4 Finding 23.
E5. Project associations and stakeholder participation.	S	See Section 3.5.5 Finding 24.
E6. Communication, knowledge management and knowledge outputs.	MS	See Section 3.5.2 Finding 21.
E7. General quality of the monitoring and evaluation.	MS	See Section 3.5.2 Finding 21.
E7.1 Design of monitoring and evaluation at start of project.	U	See Section 3.5.2 Finding 21.
E7.2 Design of monitoring and evaluation after mid-term review.	S	See Section 3.5.2 Finding 21.
E7.3 Monitoring and evaluation implementation plan (including human and financial resources).	MS	See Section 3.5.2 Finding 21.
E8. General evaluation of the factors affecting performance.	MS	See Section 3.5 Findings 20 to 25.
<b>F. CROSS-CUTTING ISSUES</b>		
F1. Gender and equality dimensions.	S	See Section 3.6 Findings 26, 27 and 28.
F2. Human rights issues.	S	See Section 3.6.
F2. Social and environmental safeguards.	S	See Section 3.6.
<b>OVERALL RATING OF THE PROJECT</b>	S	The project was effective: it managed to progress towards the formulated objective. It was relevant to the actual situation and national public policies, consistent with the strategic frameworks of FAO and GEF, and met the needs of the beneficiary groups. In addition, it achieved efficient technical and financial execution.



# 1. Introduction

1. This document is the final evaluation report for the project "Strengthening the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile" - GCP/CHI/039/GFF - (hereinafter, the "project").
2. This report is divided into certain sections and presented in the order stipulated by the Food and Agriculture Organization of the United Nations (FAO) Office of Evaluation (OED) for evaluations of projects financed by Global Environment Facility (GEF).

## 1.1 Purpose of the evaluation

3. The aim of the evaluation was to conduct an independent assessment of the relevance of the design and actions implemented in the project, its effectiveness in achieving outputs, outcomes and objectives, its efficiency in the use of resources, the factors that may have affected execution, the inclusion of cross-cutting perspectives and the likelihood of the effects achieved being maintained after the financing has ended (sustainability). This was done for the purposes of identifying lessons learned and recommendations aimed at improving the potential impact of this initiative and possible future initiatives.

## 1.2 Foreseen users

4. According to the terms of reference, the main users of this evaluation shall be: the FAO-GEF Coordination Unit in Rome (Italy), the institutions belonging to the Project Steering Committee (PSC), the project team, the Lead Technical Officer (LTO), the Project Steering Team (PST), the national coordination, beneficiary groups and national stakeholders. They are detailed as follows:
  - i. The **Project Steering Committee (PSC)**. FAO, the Undersecretariat of Fisheries and Aquaculture (SUBPESCA) and the Ministry of the Environment, as members of the PSC, shall use the evaluation results and conclusions to improve the scope and sustainability of the outcomes after the intervention has concluded. The project coordination acts as the technical secretariat of the PSC.
  - ii. The **Budget Holder, the LTO, the PST, the National Coordinator and the project team** may use the findings and lessons learned to strengthen and/or help scale up the interventions in the four coves involved in the project. They may also be used to improve the design and implementation of future interventions in the country or region, including activities in progress in areas that are similar to those covered in the project.
  - iii. The **FAO-GEF Coordination Unit** will use the outcomes to report to GEF and provide information on the fulfilment of the project's objectives and indicators and the budget expenditure.
  - iv. The **beneficiaries and other national stakeholders** may use the evaluation to analyze the possibility of taking similar actions intended to give continuity to the project outcomes or to replicate them in other regional or national contexts.

## 1.3 Scope and objectives of the evaluation

5. The evaluation timeline covered the project execution period, from its start date (July 2017) to the time of the evaluation (March 2021). The timing of the evaluation made it impossible to review and analyse the actions and outputs generated after the end of the information gathering period, that is, in April, May and June 2021. However, every effort has been made to include the most relevant milestones when drafting the latest version of this document.

6. The geographic scope coincided with the intervention territory and its interaction with national, regional and local scales, considering the four pilot coves: Caleta Riquelme in the Tarapaca region; Caleta Tongoy in the Coquimbo region; Caleta Coliumo in the BioBio region; and Caleta El Manzano-Hualaihué in the Los Lagos region (Figure 1).
7. The field work was done remotely, using virtual communication platforms. It had a duration of 25 days: from 12 to 30 April 2021, plus four additional days spread out over the first and second weeks of May 2021 (Appendix 7). A total of 90 key actors were interviewed (Appendix 1).

## **1.4 Method**

8. In order to achieve the objectives and meet the reporting needs, a qualitative, learning-oriented collaborative and participatory evaluation methodology approach was used.
9. To avoid bias, the information was triangulated and compared with the background data contained in primary and secondary sources, and the evaluation consultants and project team exchanged information to verify the conclusions.
10. During the evaluation, the norms and standards of the United Nations Evaluation Group (UNEG) and the OED/FAO project evaluation guidelines were followed, taking a consultative, transparent and independent approach to the internal and external project stakeholders.

### **1.4.1 Evaluation questions**

11. The information assessed was determined by the evaluation questions and criteria described in the terms of reference. Each of these elements was analysed, taking into consideration the design, performance, processes driven and project outcomes.
12. The list of evaluation questions is shown below along with the six evaluation criteria (strategic relevance, effectiveness, efficiency, factors that affected project performance, sustainability and cross-cutting dimensions):

**Table 1. Evaluation questions and sub-questions**

Criterion	Evaluation questions
<b>Strategic relevance</b>	<b>Question 1.</b> Have the project outcomes been (and do they remain) aligned with GEF's strategies, national priorities, FAO's Country Programming Framework and the beneficiaries' needs?
<b>Effectiveness</b>	<b>Question 2.</b> What outcomes (both intended and unintended) has the project achieved? To what extent did these contribute to the achievement of the project objectives? What achievements and outcomes have been reached in each component?
<b>Efficiency</b>	<b>Question 3.</b> How have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives? Are there any aspects that deserve subsequent monitoring?
<b>Sustainability</b>	<b>Question 4.</b> How sustainable are the outcomes achieved at an environmental, social, institutional and financial level? Are there any risks that could affect the sustainability of the project achievements and effects?
<b>Factors that affected project performance</b>	<b>Question 5.</b> What are the main factors that affect or affected project performance? (design, execution, monitoring, co-financing and communication)
<b>Cross-cutting perspectives</b>	<b>Question 6a. Gender.</b> To what extent have gender-sensitive considerations been taken into consideration in the design and implementation of the project?
	<b>Question 6b. Participation of indigenous communities.</b> To what extent have the rights of indigenous communities been respected and promoted in the design, decision-making and implementation of the project?

#### 1.4.2 Key actors in the evaluation

13. The key actors consulted during the field work were selected based on the role they played, the volume of information they handled and the intensity of their connection to the project design and implementation. Thus, five main groups arose:
- i. The **beneficiaries**: people benefiting directly from the initiative, including families, gatherers, aquaculturists, fishers and organizations present at the four pilot coves.
  - ii. **FAO employees and the project team**: management team tasked with the technical and financial implementation and monitoring of the project activities.
  - iii. The **associated institutions**: national, regional and local civil servants and authorities of partner institutions and/or institutions linked to the project.
  - iv. The **allied institutions**: universities, research centres and civil society organizations that were directly related to implementation of the project activities.
  - v. **External consultants**: institutions and individuals that provided external services for achievement of the outputs pledged by the project.

#### 1.4.3 Data collection techniques

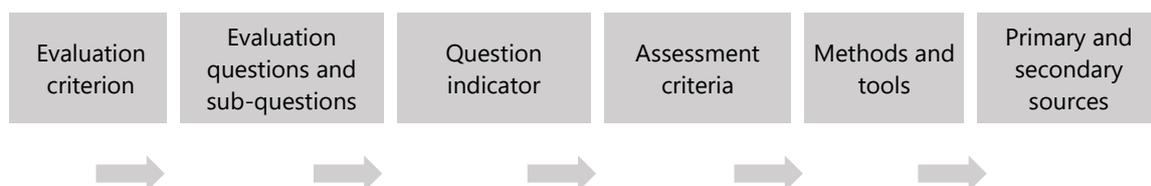
14. Different techniques were used, depending on the key actor and the type of information dealt with, as indicated below. Instruments were prepared and designed based on the evaluation questions and the study objectives (Appendix 8). The following table describes the data collection techniques implemented:

**Table 2. Data collection techniques**

Technique	Description
<b>Review of existing documentation and reports</b>	The half-yearly and annual progress reports and technical reports generated for the four components, training materials, studies conducted, national legislation, key press releases, publications and products available, among other documents (references), were reviewed.
<b>In-depth interviews</b>	Interviews with key actors were held remotely for the purpose of gathering in-depth information about these individuals' impressions or experiences. Individuals in charge of project execution, beneficiaries, government officials, allied institutions and external consultants were addressed.

#### 1.4.4 Evaluation matrix

15. As a methodological guide for gathering and analysing the information collected in the evaluation process, an evaluation matrix was drawn up (Appendix 6). For the formulation of this matrix, six questions and sub-questions linked to the six evaluation criteria established in the terms of reference were considered. The matrix is structured as follows:

**Table 3. Evaluation matrix structure**

#### 1.4.5 OED/GEF evaluation frameworks

16. OED and GEF have developed reference frameworks to offer technical and methodological guidance in the evaluation of mainstreaming of the gender-sensitive approach (FAO, 2017b), capacity-building (FAO, 2019), participation of indigenous communities and social and environmental safeguards (GEF, 2018) in the projects, programmes and strategies they implement, execute, finance and/or support.
17. These tools contain methods and general guidelines for effective evaluation of each of these dimensions, along with a series of recommended evaluation questions, indicators, assessment criteria and data collection methods.
18. Following the guidelines established in these tools, the evaluation team made a selection of the elements to be included in the evaluation matrix for each framework.

#### Evaluation of the inclusion of the gender perspective

19. The FAO Gender Equality Policy stipulates that all the processes led or supported by the OED must address gender equality issues in the programmes and projects evaluated. To this end, the OED developed a manual that offers guidelines for the inclusion of this dimension. The manual gives a list of evaluation questions and indicators related to each of the five gender equality objectives that FAO has included in its policy.
20. Using the OED's manual as reference, evaluation questions and sub-questions, assessment criteria and indicators geared towards gathering information about the degree of compliance with FAO gender equality objectives and standards were included in the evaluation matrix.

### **Evaluation of the participation of indigenous communities**

21. FAO has a policy on indigenous and tribal peoples drawn up in 2011 (FAO, 2011) and a manual for ensuring the free, prior and informed consent (FPIC) of local communities and indigenous peoples in the development of their initiatives (FAO, 2016). These instruments specify the objectives and steps to be taken in managing the project cycle in order to effectively include indigenous communities and FPIC. The evaluation team used these instruments to assess the inclusion of this dimension in the project evaluated.

### **1.5 Limitations and risks**

22. The main limitation of the evaluation was that, given the mobility restrictions prompted by the COVID-19 pandemic, it was impossible to conduct on-site visits to directly observe the processes implemented and the effects generated by the project. As an alternative, interviews were conducted by telephone and using online platforms, with key actors who had access to an internet connection in their homes or the ability to travel to somewhere offering this access.
23. Despite the limitations described, the evaluation is deemed to have generated quality information and it was possible to triangulate the background information required to reach sufficiently verified conclusions, lessons learned and recommendations.



## **2. Background and context of the project**

### **2.1 Project context**

24. Background information retrieved from the evaluation terms of reference and the ProDoc. In Chile, fishing and aquaculture are among the productive activities of greatest economic and social relevance at the national level, especially among coastal communities, whose livelihoods depend on these activities.
25. After great historical growth, fishing reached a record amount of eight million tonnes in 1994. However, it has experienced a downward trend during recent decades, mainly due to overfishing.
26. Aquaculture, in turn, has grown considerably in recent decades in terms of volumes and profits, from 184 000 tonnes in 1994 to 1.2 million tonnes in 2014. However, the total volume of landings and harvests show a marked downward trend. The average volume of 3.8 million tonnes per year over the last five years falls below the average for the last decade (4.7 million tonnes), reflecting a decline in the main fisheries and in aquaculture harvests.
27. While the decline, in general, can be attributed to over-exploitation (for fishing) and to production, environmental, social and market issues (for aquaculture), changes in the marine environment conditions, including shifts in the behaviour of its biological characteristics and in the availability, accessibility and vulnerability of fishing resources, cannot be ruled out.
28. In this regard, the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) forecasted a redistribution of open-ocean net primary production and a global decrease in all the scenarios assessed; it also established (with a high rate of confidence) that climate change adds to the threats of over-fishing and other non-climatic stressors. In the case of Chile, the effects of climatic variability caused by El Niño on the ocean and on fisheries are well documented: several studies have been conducted that forecast the negative impact of climate change on the sector and an increase in the vulnerability of fisheries and aquaculture.
29. This situation has had negative socioeconomic effects, including reduced income for fishing communities and the threat of food insecurity for local communities and nationwide. In terms of fisheries' and aquaculture's vulnerability and adaptation to climate change, the artisanal fisheries sub-sector in general is identified as one of the sectors requiring the greatest attention, given its direct link to the sea and the strong socioeconomic dependence associated with the extraction of marine resources.
30. To address this situation, Chile has implemented a series of initiatives aimed at sustainable development of the fisheries and aquaculture sector, including management, research, and monitoring of industrial fishing and aquaculture, and also artisanal fisheries and small-scale aquaculture, as well as research and knowledge building on climate change related to fishing and aquaculture. However, these initiatives do not give enough consideration to climate change and its adverse effects and thus, are not aimed at generating the necessary capacities to create a more resilient fisheries and aquaculture sector, capable of adapting to climate change.
31. Some of the obstacles leading to the aforementioned decline include: i) weaknesses in the institutional framework, including a lack of interinstitutional coordination and limited public, private and civil society capacities to understand and cope with climate variability and climate change in the fisheries and aquaculture sector; ii) the limited experience and availability of technologies and implementation of best practices in the fisheries and aquaculture sector to

adapt to climate change increases the vulnerability of coastal communities; and iii) limited information and knowledge at community level for an adequate management of fishery and aquaculture resources to tackle the expected impact of climate change.

## 2.2 Project framework

32. The evaluated project received a total sum of USD 2 500 000 in funding from GEF and was implemented and co-financed by FAO, in association with SUBPESCA and the Ministry of the Environment. Jointly, these institutions pledged a total of USD 15 737 793 in co-financing.
33. The project began in July 2017 and execution is expected to be completed in June 2021.

**Table 4. General project information**

<b>Project title:</b> Strengthening the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile - GCP/CHI/039/GFF – GEF ID: 6955
<b>Project duration:</b> 4 years <b>Official project start date:</b> July 2017 <b>Expected project end date:</b> June 2021 (considering an extension without additional financing)
<b>GEF focal area 6:</b> Climate change: objectives 1 and 2 of the adaptation programme (CCA)
<b>Financial partner:</b> GEF <b>Executing partners:</b> SUBPESCA and Ministry of the Environment <b>Executing agency:</b> FAO
<b>Total project budget:</b> USD 18 237 793 <b>National contribution:</b> USD 15 737 793 (SUBPESCA: USD 14 790 011 – Ministry of the Environment: USD 846 421 – FAO Chile: USD 101 361) <b>GEF contribution:</b> USD 2 500 000

34. With the aim of progressing towards overcoming the obstacles identified (Section 2.1), the project intervention strategy was designed with the objective of “Reducing the vulnerability and increasing the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile”.
35. Following the project intervention logic, this objective should be achieved by accomplishing four outcomes and 11 outputs arranged into four related components, three of which are linked to programming (components 1, 2 and 3) and one to knowledge management, monitoring and evaluation (M&E) of the project (component 4) (Table 2).
36. As regards the intervention territory in which the actions were implemented, the project worked on three levels: national, regional and local. For the latter of these, four pilot coves located in four different regions of the country were selected (figure 1). These include:
- i. Caleta Riquelme in the Tarapaca region;
  - ii. Caleta Tongoy in the Coquimbo region;
  - iii. Caleta Coliumo in the BioBio region; and
  - iv. Caleta El Manzano-Hualaihué in the Los Lagos region.

**Table 5. Project intervention logic**

<p><b>PROJECT OBJECTIVE:</b> To reduce vulnerability and increase the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile and globally.</p>			
<p><b>COMPONENT 1.</b> Strengthening public and private institutional capacities for effective climate change adaptation.</p>	<p><b>COMPONENT 2.</b> Improving the capacity of adaptation to climate change in local fisheries and aquaculture communities.</p>	<p><b>COMPONENT 3.</b> Strengthening knowledge and awareness-raising on climate change in fisheries and aquaculture communities.</p>	<p><b>COMPONENT 4.</b> M&amp;E and information dissemination.</p>
<p><b>Outcome 1.1.</b> Strengthened public and private institutional capacity to implement/improve adaptation to climate change in the fisheries and aquaculture sector at national and local levels.</p>	<p><b>Outcome 2.1.</b> Stakeholders have established more adaptive and resilient fishing and aquaculture systems and increased their capacity to adapt and invest in innovative adaptation technologies at local level.</p>	<p><b>Outcome 3.1.</b> Local coastal communities are aware, knowledgeable and prepared to cope with climate change effects on fisheries and aquaculture.</p>	<p><b>Outcome 4.1.</b> Project implemented on a results-based management approach.</p>
<p><b>Output 1.1.1.</b> Coordinating/advisory bodies on climate change, fisheries and aquaculture established and working at national, regional and local level.</p> <p><b>Output 1.1.2.</b> Interoperable information base system that systematizes and integrates fisheries, aquaculture and climate change data, to generate information for end users and decision makers.</p> <p><b>Output 1.1.3.</b> Capacity-building programme for public officials, national experts, and regional and community decision-making authorities.</p>	<p><b>Output 2.1.1.</b> Pilot programme to strengthen and develop the capacities of fisheries and aquaculture communities and organisations in four coves (Riquelme, Tongoy, Coliumo and El Manzano- Hualaihue).</p> <p><b>Output 2.1.2.</b> Pilot programme to monitor climate change adaptation locally developed in four pilot coves (linked to the platform of Output 1.1.2).</p> <p><b>Output 2.1.3.</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach.</p>	<p><b>Output 3.1.1.</b> Project communication strategy, designed and implemented.</p> <p><b>Output 3.1.2.</b> Mechanism to disseminate field adaptation measures, implemented.</p>	<p><b>Output 4.1.1.</b> M&amp;E system operating, providing constant information on progress in reaching the project outcome and output targets.</p> <p><b>Output 4.1.2.</b> Mid-term review and final evaluation completed and implementation and sustainability strategies adjusted to the recommendations.</p> <p><b>Output 4.1.3.</b> Best practices and lessons learned from the project, published.</p>
<p><b>Activities linked to each output</b></p>			

**Figure 1. Location of pilot coves**

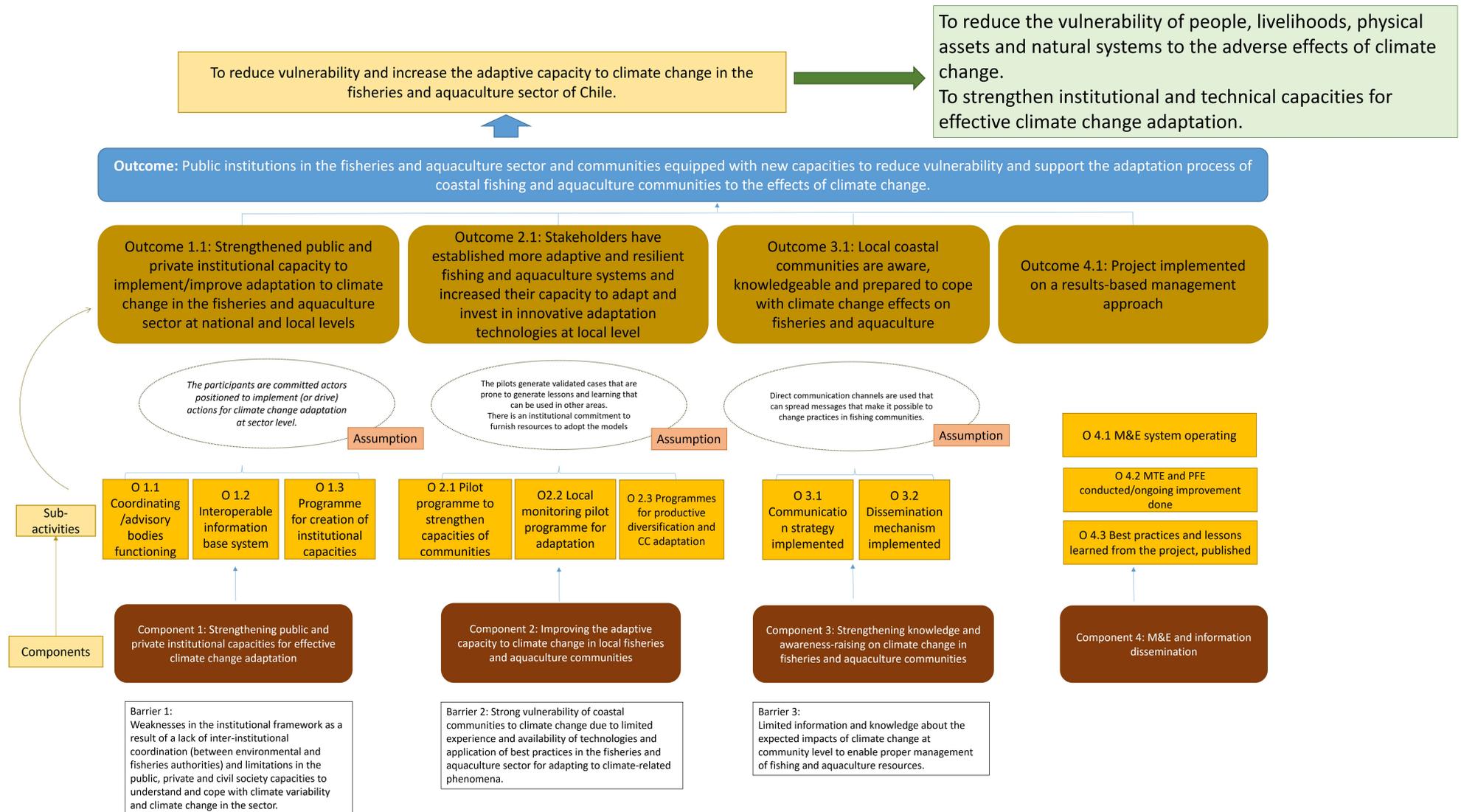


Source: ProDoc. Map conforms to UN. 2010. [Map 4395](#).

## 2.3 Theory of change

37. The mid-term review (MTR) of the project proposed reformulating the theory of change. This was based on its intervention logic, to which three cases and the obstacles identified during the project formulation were added (Figure 2).
38. Based on the inputs generated during the deskwork phases and the consultations with people interviewed in the field, the final evaluation validated the theory of change proposed in the MTR.

**Figure 2. Theory of change reconstructed in the MTR**



Source: MTR.



### 3. Findings of the evaluation

39. The presentation of findings is arranged around the reporting needs summarised in the evaluation matrix, answering the questions linked to each of the evaluation criteria, specifically: strategic relevance, effectiveness, efficiency, factors that affected project performance, cross-cutting perspectives and sustainability.

#### 3.1 Strategic relevance

**Question 1.** *Have the project outcomes been (and do they remain) aligned with GEF's strategies, national priorities, FAO's Country Programming Framework and the beneficiaries' needs?*

**Finding 1.** The project was coherent with the strategic priorities of Chile in terms of climate change adaptation in the fisheries and aquaculture sector, was consistent with the FAO Strategic Framework and aligned with the GEF-6 strategy for adaptation to climate change.

##### National strategic priorities

40. The key institutional informants and the evaluation team have confirmed that the project design and implementation are coherent with the legal framework in force and the public policies related to sustainable development and climate change adaptation in the fisheries and aquaculture sector in Chile, thus ratifying the terms of the project document (ProDoc).
41. In addition to being aligned with the applicable legal framework and public policies, it is important to highlight in the evaluation the project's relevance and contribution to the implementation and/or design of planning instruments linked to climate change in the fisheries and aquaculture sector (some of which are in the process of being implemented while others are in the preparation and/or update phase). These include: i) 2017–2022 National Action Plan on Climate Change; ii) National Adaptation Plan to Climate Change; and iii) National Adaptation Plan to Climate Change for Fisheries and Aquaculture.
42. These instruments contain adaptation actions in the form of core ideas, lines of action, objectives and/or measures that are in harmony with the outcomes and outputs of components 1, 2 and 3 of the evaluated project design (Tables 6, 7 and 8). It is also worth mentioning the draft climate change framework bill, which provides management instruments (sectoral plans for adaptation to climate change and regional climate change action plans) that are also coherent with the project design and implementation.
43. The importance lies in the fact that these instruments can – and should – guide the implementation of public policies related to climate change in general and to the adaptation of the fisheries and aquaculture sector in particular. Therefore, by integrating the outcomes, knowledge, best practices and lessons learned from implementation of the project, these will be relevant in the projection of future public actions for the sector's adaptation to the effects of climate change.

**Table 6. Core ideas, objectives, lines of action and measures foreseen in the 2017–2022 National action plan on climate change that are aligned with the project**

Lines of action (LA) with which the project was aligned	Adaptation measures (MA) / means of implementation (MI) / management measures (MM) with which the project was aligned	Aligned project outputs and outcomes
<b>Core idea 1: Adaptation</b>		
<b>Objective 1:</b> Regularly evaluate how vulnerable human and natural systems are to the impacts of climate change, determining the risks and opportunities arising from this phenomenon.		
<b>LA1:</b> Generation, analysis and updating of climate-related information.	<b>MA1:</b> Define and update reference climate scenarios for the entire national territory to provide basic information for adaptation to climate change. <b>MA2:</b> Improve the national network of meteorological variable monitoring stations in order to conduct climate tracking and provide input for climate scenario models.	<b>Outcome 1.1/Output 1.1.2:</b> Interoperable information base system that systematizes and integrates fisheries, aquaculture and climate change data, to generate information for end users and decision makers.
<b>LA2:</b> Generation, analysis and updating of information about vulnerability and risks posed by climate change.	<b>MA5:</b> Generate and update nationwide vulnerability maps.	<b>Outcome 2.1/Output 1.1.3:</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach (action: creation of themed maps).
<b>Objective 2:</b> Adapt to climate change through implementation of measures aimed at reducing vulnerability and increasing the adaptive capacity of the country's human and natural systems.		
<b>LA3:</b> Creation, implementation and updating of sectoral adaptation plans.	<b>MA 8:</b> Plan for Climate Change Adaptation in the Fisheries and Aquaculture Sector.	In its entirety, the project supported the implementation of objectives 2, 3 and 5 of the National Adaptation Plan to Climate Change for Fisheries and Aquaculture (Table 7).
<b>Core idea 3: Means of Implementation</b>		
<b>Objective 1:</b> Support technology transfers to enable implementation of measures for mitigation and adaptation to climate change.		
<b>LA19:</b> Incorporation of new technologies.	<b>MI 11:</b> Facilitate the introduction of technologies that enable implementation of mitigation and/or adaptation measures in Chile.	<b>Outcome 2.1/Output 1.1.3:</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach. <b>Outcome 2.1/Output 1.1.2:</b> Pilot programme for monitoring climate change adaptation developed in four pilot coves.
<b>Objective 3:</b> Create and strengthen the national capacity for climate change management and provide technical assistance.		
<b>LA21:</b> Strategy for educating and raising awareness about coping with climate change.	<b>MI19:</b> Implement an awareness-raising campaign about climate change geared towards the private sector and civil society.	<b>Outcome 3.1/Output 3.1.1:</b> Project communication strategy, designed and implemented. <b>Outcome 3.1/Output 3.1.2:</b> Mechanism to disseminate field adaptation measures, implemented.

Lines of action (LA) with which the project was aligned	Adaptation measures (MA) / means of implementation (MI) / management measures (MM) with which the project was aligned	Aligned project outputs and outcomes
	<b>MI20:</b> Train civil servants at different levels of governance about climate change management.	<b>Outcome 1.1/Output 1.1.3:</b> Capacity-building programme for public officials, national experts, and regional and community decision makers.
	<b>MI21:</b> Train the private sector and civil society on matters related to climate change.	<b>Outcome 2.1/Output 2.1.1:</b> Pilot programme to strengthen and develop the capacities of fisheries and aquaculture communities and organizations in four coves (Riquelme, Tongoy, Coliumo and El Manzano-Hualaihue).
<b>Core idea 4: Climate change management at regional and community level</b>		
<b>Objective 1:</b> Strengthen the institutionality of climate change at regional and community level.		
<b>LA24:</b> Institutional arrangements.	<b>MM2:</b> Institutionalize the topic of climate change in regional and municipal governments by hiring a permanent climate change manager or unit.	<b>Outcome 1.1/Output 1.1.1:</b> Coordinating/advisory bodies on climate change, fisheries and aquaculture established and working at national, regional and local level.
<b>LA26:</b> Inclusion of climate change in the planning instruments.	<b>MM5:</b> Establish cooperation through committees and public bodies tasked with developing policies and programmes at regional or community level so as to include climate change considerations.	

**Table 7. Objectives and strategic lines contained in the 2014 National Adaptation Plan to Climate Change with which the project was aligned**

Strategic lines with which the project was aligned	Measures with which the project was aligned	Aligned project outputs and outcomes
<b>Objective 2: Promotion of sustainable production practices for climate change adaptation in biodiversity and support of ecosystem services.</b>		
<b>Strategic line 2:</b> Fostering of good management practices in production and management systems, integrating biodiversity protection criteria and adaptation to climate change.	<b>Measure 16:</b> Biodiversity conservation and prevention of climate change impacts through a system for distinguishing sustainable tourist destinations.	<b>Outcome 2.1/Output 2.1.3:</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach (action: creation of sustainable tourism strategies)
	<b>Measure 17:</b> Service distinction system for tourist accommodation in Chile according to environmental, socio-cultural and economic criteria.	
	<b>Measure 19:</b> Support the implementation of management plans at national fisheries.	<b>Outcome 2.1/Output 2.1.3:</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach (action: productive diversification and added value of fishery resources).

**Table 8. Project alignment with the 2015 National Adaptation Plan to Climate Change for Fisheries and Aquaculture**

Measures with which the project was aligned	Objective of the measure	Aligned project outputs and outcomes
<b>Specific objective 2: Develop the necessary research for improving knowledge about climate change impacts and scenarios on the ecosystem services and conditions on which fisheries and aquaculture activities are based.</b>		
<b>Measure 7:</b> Forecast models for Chilean deep-sea fisheries based on diverse climate change scenarios.	Develop forecast models to explore how climate change will affect the future abundance of fishing resources nationally and regionally.	<b>Outcome 1.1/Output 1.1.2:</b> Interoperable information base system that systematizes and integrates fisheries, aquaculture and climate change data, to generate information for users and decision-making.
<b>Measure 8:</b> Oceanographic and underwater morphology studies linked to marine biodiversity.	Analyze the existing scientific literature and increase knowledge on oceanographic and underwater morphology topics linked to marine biodiversity (...)	

Measures with which the project was aligned	Objective of the measure	Aligned project outputs and outcomes
<b>Measure 14:</b> Study on vulnerability to climate change of important hydrobiological resources in fishing and aquaculture.	Create a knowledge matrix and a list of species that are subject to fishing and aquaculture, whose preference and tolerance ranges will be affected in terms of their key environmental variables for development, growth and reproduction under different climate scenarios.	<b>Outcome 1.1/Output 1.1.2:</b> Interoperable information base system that systematizes and integrates fisheries, aquaculture and climate change data, to generate information for users and decision-making.
<b>Measure 15:</b> Climate condition prediction system for artisanal fisheries and aquaculture.	Create a synoptic scale system for predicting variations in environmental operating conditions for artisanal fisheries and aquaculture.	
<b>Measure 16:</b> Evaluation of species of interest to aquaculture under different climate scenarios.	Evaluate species of possible commercial interest that develop optimally in the new marine environment scenario.	<b>Outcome 2.1/Output 2.1.3:</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach (action: productive diversification and added value of fishery resources).
<b>Specific objective 3. Disseminate and provide information on the impacts of climate change for the purpose of educating and training users and relevant actors in the fisheries and aquaculture sector about these matters.</b>		
<b>Measure 19:</b> Local training through pilot projects.	Building capacities locally to cope with the challenges of climate change and variations in fishing catches to creating examples of good practices for replication at other fishing sites.	<b>Outcome 1.1/Output 1.1.3:</b> Capacity-building programme for public officials, national experts, and regional and community decision makers. <b>Outcome 2.1/Output 2.1.1:</b> Pilot programme to strengthen and develop the capacities of fisheries and aquaculture communities and organizations in four coves (Riquelme, Tongoy, Coliumo and El Manzano-Hualaihue). <b>Outcome 3.1/Output 3.1.1:</b> Project communication strategy, designed and implemented. <b>Outcome 3.1/Output 3.1.2:</b> Mechanism to disseminate field adaptation measures, implemented.
<b>Measure 20:</b> Information about climate change in fishing and aquaculture.	Disseminate knowledge and information about potential threats of climate change to generate a greater adaptive capacity among the different sectors.	
<b>Specific objective 5. Develop direct adaptation measures aimed at reducing vulnerability and the impact of climate change on fishing and aquaculture activities.</b>		
<b>Measure 29:</b> Promote consumption and added value of artisanal fishing resources.	Improve resource sustainability, reducing extraction pressure on these resources by increasing the profits from catches.	<b>Outcome 2.1/Output 2.1.3:</b> Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach (action: productive diversification and added value of fishery resources).

**GEF-6 programming strategy on adaptation to climate change**

44. The ProDoc deemed the project to be relevant for objectives 1 and 2 (CCA-1 and CCA-2) of the Programming strategy on adaptation to climate change of the Least Developed Countries Fund (LDCF) of the GEF Special Climate Change Fund (SCCF). The final evaluation confirms that the design and implementation are highly pertinent and accurately reflect the aims sought in these planning tools.
45. It was observed that the project design, objectives, outputs and actions carried out, as a whole, effectively act to “reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change” (Objective CCA-1) and to “strengthen institutional and technical capacities for effective climate change adaptation” (Objective CCA-2). This coherence is shown in the alignment with the objectives of the LDCF and also with its outcomes, which are strongly aligned with the outputs and outcomes of the project evaluated (Table 9).

**Table 9. Project alignment with the GEF-6 programming strategy on adaptation to climate change**

Outcomes	Aligned project outputs and outcomes
CCA-1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to adverse effects of climate change.	
Outcome 1.1 Vulnerability of physical assets and natural systems reduced.	Outcome 2.1/Output 2.1.1: Pilot programme to strengthen and develop the capacities of fisheries and aquaculture communities and organizations in four coves.
Outcome 1.2 Livelihoods and sources of income of vulnerable populations diversified.	Outcome 2.1/Output 2.1.3: Strengthened programmes developed in four coves through the inclusion of productive diversification with a climate change adaptation approach (action: productive diversification and added value of fishery resources).
Outcome 1.3 Climate-resilient technologies and practices adopted and scaled up.	
CCA-2: Strengthen institutional and technical capacities for effective climate change adaptation.	
Outcome 2.1 Increased awareness of climate change impacts, vulnerability and adaptation.	Outcome 3.1/Output 3.1.1: Project communication strategy, designed and implemented. Outcome 3.1/Output 3.1.2: Mechanism to disseminate field adaptation measures, implemented.
Outcome 2.2 Improvement in technical knowledge for the identification, prioritization and implementation of adaptation strategies and measures.	Outcome 2.1/Output 2.1.1: Pilot programme to strengthen and develop the capacities of fisheries and aquaculture communities and organizations in four coves (Riquelme, Tongoy, Coliumo and El Manzano-Hualaihue).
Outcome 2.3 Access to climate information improved and early warning systems improved at regional, national, sub-national and local levels.	Outcome 1.1/Output 1.1.2: Interoperable information base system that systematizes and integrates fisheries, aquaculture and climate change data, to generate information for users and decision-making.
Outcome 2.4 Institutional capacities and human skills strengthened to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures.	Outcome 1.1/Output 1.1.3: Capacity-building programme for public officials, national experts, and regional and community decision makers.

## FAO strategic priorities

46. The evaluation corroborated that both the design and the implementation of the project in its entirety are aligned with the FAO's Strategic Outcomes Framework (2014–2019) specifically as regards the following institutional objectives and outcomes: i) Strategic objective 2: "Increase sustainable supply of goods and services of agriculture, livestock, forestry and fishing" and Outcome 1: "Producers and natural resources managers adopt practices that increase and improve the supply of goods and services from the agricultural sector, forestry and fisheries activities in a sustainable manner," and ii) Strategic Objective 5: "Increase the resilience of livelihoods to disasters" and Outcome 3: "Countries reduced the risks and vulnerability of households and communities".
47. In addition, as regards the National Framework of Priorities for FAO Technical Assistance in Chile, the evaluation confirms that the initiative is relevant for the work area of "Governance of Natural Resources, Forestry, Agricultural and Fishing Systems under Climate Change Scenarios", and its topics: i) fostering participatory and inclusive strategies of a territorial nature for the development of family farming and artisanal fishing; and ii) institutional strengthening for sustainable management of natural resources in climate change scenarios.

**Finding 2.** The project is highly relevant to the beneficiary groups present at the four pilot coves selected as the intervention territory.

48. The project was coherent with the needs and interests of the target group, particularly as regards the development of skills and access to knowledge about the effects of climate change, production and interpretation of environmental information and productive diversification. Each of these aspects is detailed below:
- i. **Knowledge about the effects of climate change:** In the project formulation, fishers, aquaculturists and seaweed farmers as well as organizational leaders were identified as having insufficient knowledge and understanding about the effects of climate change locally and globally. This weakness, addressed in Output 1.1.1, was ratified in the evaluation: the consulted beneficiaries indicated that their participation in the project activities enabled them to understand that climate change was one of the causes of, and/or could potentially lead to, a reduction in fishing and aquaculture resources and, consequently, could jeopardize their sources of income (section 4.2).
  - ii. **Production and interpretation of environmental information:** One of the aspects outlined in the ProDoc and covered by implementing Output 1.1.3 is the need for the beneficiary groups to have appropriate access to information and to interpret oceanographic variables related to the environment that affect their productive activities.
  - iii. **Diversification of production:** The reduction in extractive resources due to over-fishing and climate change has negatively affected the sources of income for the beneficiary groups in the four pilot coves. Bearing this situation in mind, the actions aimed at productive diversification launched in the project (Output 2.1.3) have satisfactorily addressed this matter. The most relevant of such actions include the creation of special-interest tourism strategies and aquaculture practices.

**Finding 3.** The project design and implementation are aligned with the dimensions of the FAO Capacity Development Evaluation Framework.

49. The project focused part of its intervention strategy on capacity-building, by designing and implementing spaces for learning and institutional strengthening actions. These components managed to span the three dimensions established in the FAO Capacity Development Evaluation Framework (CDEF): individual, organizational and enabling environments (Table 9).
50. The individual dimension refers to the development of technical and managerial capacities, skills, knowledge, attitudes, behaviours and values. All of these aspects were satisfactorily taken into account in the project, specifically in the following outputs: i) the capacity-building programme for public officials (Output 1.1.3); ii) the pilot programme to strengthen and develop the capacities of fisheries and aquaculture communities and organisations (Output 2.1.1); iii) skills development for community environmental monitoring (Output 2.1.2); and iv) the practices for climate change adaptation promoted (Output 2.1.3).
51. The organisational dimension applies to the capacity-building for public, private and civil society organisations and networks of organisations in diverse fields (strategic management, structures and relations, operating capacity, human and financial resources, infrastructure and others). The strategies formulated for the evaluated initiative take these matters into account, particularly in: i) the design and launch of an interoperable information system (Output 1.1.2); ii) the capacity-building programme for public officials (Output 1.1.3); and iii) the support for the formation and/or strengthening of coordinating/advisory bodies (Interinstitutional Working Groups [IWG]) on climate change, fisheries and aquaculture working at national, regional and local level (Output 1.1.1).
52. The enabling environments dimension – linked to improvements in the setting in which the individuals and organisations work (i.e. political commitment, governance structures, institutional configurations and other elements) – was also considered in the project design and implementation through: i) the support for the formation and/or strengthening of the IWGs (Output 1.1.1); and ii) the implementation of a communication strategy (Output 3.1.1). Only the first of these met the CDEF objective of generating an enabling environment. Output 3.1.1 showed weaknesses in its implementation and difficulties in accomplishing the outcomes sought (section 4.2).

**Table 10. Strategic alignment of the project with the dimensions stipulated in the CDEF**

Dimension	CDEF description	Project outputs and outcomes designed and aligned
Individual	Development of technical and managerial capacities, skills, knowledge, attitudes, behaviors and values.	Outcome 1.1 Output 1.1.3 (capacity-building for public officials) Outcome 2.1 Output 2.1.1 (capacity-building programme) Output 2.1.2 (monitoring programme) Output 2.1.3 (adaptation practices)
Organizational	Capacity-building for public, private and civil society organizations and networks of organizations in: a) strategic management, structures and relations; b) operating capacity; c) human and financial resources; d) knowledge and information; e) infrastructure.	Outcome 1.1 Output 1.1.1 (Interinstitutional Working Groups) Output 1.1.2 (Information system) Output 1.1.3 (Capacity-building for public officials)
Enabling environments	Improved setting in which the individuals and organizations work, including political commitment and vision; political, legal and economic frameworks and institutional configuration in the country; national public sector budgetary processes and allocations; governance and power structures; social norms and incentives; power structures and dynamics.	Outcome 1.1 Output 1.1.1 (Interinstitutional Working Groups) Outcome 3.1 Output 3.1.1 (Communication strategy)

### Assessment of the project's strategic relevance

53. Given the strong alignment with the needs of the beneficiary groups, the coherence with the strategic frameworks of FAO and GEF and the relevance to the actual situation and public policies in the country, the evaluation team rate the strategic relevance of the project as highly satisfactory.

## 3.2 Effectiveness

**Question 2.** *What outcomes (both intended and unintended) has the project achieved and to what extent did these contribute to the achievement of the project's environmental and development objectives? What achievements and outcomes have been reached in each component?*

54. Effectiveness was assessed in terms of the progress made by the project towards achieving its objective and the expected outcomes in programming components 1, 2 and 3. Component 4 (monitoring, evaluation and dissemination of information) is addressed in Section 4.5.
55. Fulfilment of indicators is reviewed extensively in Appendix 5 of this report.

## Achievement of the project objective

**Finding 4.** The project contributed decisively to improving and strengthening the institutional and community capacity to adapt to climate change.

56. The objective formulated for the project is “To reduce vulnerability and increase the adaptive capacity to climate change in the fisheries and aquaculture sector of Chile”.
57. Nearly 100 percent of the actions were implemented and reflected in specific outputs for project components 1, 2 and 3. The technical execution, especially of Outcomes 1.1 and 2.1, as detailed below in this report, made it possible to foster spaces of governance and improve intersectoral coordination, to produce knowledge and provide fishers, decision-makers, the scientific community and the general public with access to information about the effects of climate change in the four pilot coves, to promote productive diversification processes on a local scale and to develop capacities in state officials and people linked to fishing and aquaculture in the intervention territories.
58. The outcomes indicated in the preceding paragraph, ratified by a number of key actors and by the evaluation team, are considered by FAO (2021) as essential variables to consider when gauging the strengthening of, and increase in, the institutional and community capacity to adapt to climate change. The specific contribution of the improved adaptation capacity of the sector to reducing vulnerability in the pilot coves was not part of this evaluation. This task will be included in specialised research foreseen for the last month of implementation of the initiative.

### Component 1. Strengthening public and private institutional capacities for effective climate change adaptation.

**Finding 5.** The project managed to consolidate instances of coordination and establishment of intersectoral cooperation networks on a local and regional scale and, to a lesser extent, at national level.

59. The governance spaces proposed in the project design, i.e. the IWGs, were set up at regional level (a total of four, one per region), local level (a total of two, one in Hualaihué and the other in Tome) and nationally.
60. Of the seven IWGs created, the regional and local groups managed to become consolidated, fulfil their duties of horizontal coordination (between stakeholders in the commune or region), advising and structuring and start a debate on the sector's vulnerability to climate change, in addition to extending their work beyond the end of the project.
61. One aspect that contributed to the positive results of the IWGs is that they are highly relevant: the National Adaptation Plan to Climate Change and the draft climate change framework bill both foresee a governance agency known as Regional Climate Change Committees (CORECC), whose main purpose is “to promote and facilitate the creation and implementation of climate change policies, plans and actions at regional and local levels, according to regional and local needs and possibilities” (Ministry of the Environment, n.d.). This favourable setting was harnessed by the IWGs, which were attached to the CORECC in the manner of boards or commissions specialising in fisheries and aquaculture matters. Under the umbrella of the CORECC, this institutionalisation rendered the initiative coherent, justified and facilitated the time devoted to participation by government officials and expanded the possibilities of sustainability of this space.
62. The evaluation also highlights the project experience as a driver and means of organising the discussion within these spaces. This made it possible to schedule meetings, focus the reflections, monitoring and actions around its outcomes and outputs, in addition to offering the possibility

of developing capacities and constructing a “common language” (Finding 6) among the diverse sectors and participating individuals.

63. In the Los Lagos region, the IWG programming was not only related to the project evaluated: since 2018 this area has been considered within the framework of the implementation of an initiative financed by the Green Climate Fund (GCF)<sup>1</sup> as a pilot experience for the creation of “climate change regional action plans”, in which the regional IWG actively participated by contributing to the planning of specific actions for the fisheries and aquaculture sector. This responsibility enabled them to be arranged around a defined purpose (the creation of the regional action plan), to be strengthened and to simultaneously put into practice the lessons that had been learned in the project experience.
64. At the local level, the evaluators consider it necessary to highlight the process launched in the commune of Hualaihué. This IWG issued an extensive call, engaging the community, the beneficiaries of the El Manzano cove, municipal officials and authorities and educational institutions. Through this interaction, synergies were created among these actors, thus managing – among other effects – to anchor climate change adaptation in the fisheries and aquaculture sector as one of the lines of action in the commune’s environmental strategy and to organise, along with the Technical School of Hornopiren, capacity-building actions, provision of infrastructure and support for the processes fostered in the project framework.
65. One element that the key institutional informants have indicated as decisive is the role played by the macro-zone technicians as facilitators of dialogue and information. The evaluation team has identified this figure as a success factor for the IWGs and feels that it is essential to consider this role for ensuring the continuity and quality of the IWGs’ work after the financing is finished.
66. For the future, given that these have been identified as weaknesses, it would be important to strengthen vertical coordination (between communes, regions and central level), improve the participation of the regional and communal IWGs in strategic and operational decision-making and generate opportunities for exchanging experiences among the different areas.

**Finding 6.** The project strengthened and developed capacities of government officials, raising the level of their knowledge and awareness about the macro-zone effects of climate change, governance systems, vulnerability and the importance of the sector’s adaptation in Chile. This course is one of the most highly rated outputs by diverse key actors in the evaluation.

67. As part of Output 1.1.3, the project promoted the course/diploma “Adaptation of fisheries and aquaculture to climate change”. This training opportunity was taught at the Universidad de Concepción Centre for Oceanographic Research (COPAS) Sur-Austral, for government officials at the national level. A total of 184 people registered and 159 completed the course. This is one of the most highly rated outputs by the key actors and the evaluation team, representing a substantial contribution to strengthening the capacity of the country’s public institutions to adapt to climate change.
68. This positive rating is based on the following reasons:
  - i. **Interest in the theme:** the participants reveal that the course theme offered is innovative, attractive and appropriate. It addressed the knowledge gap among

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<sup>1</sup> The GCF project: Strengthening the Subnational Planning Frameworks for Mitigation and Adaptation to Climate Change.

- government officials as regards the effects, vulnerability, risks and need to adapt to climate change in the country's fisheries and aquaculture sector.
- ii. **The method:** classes were taught using the *b-learning*<sup>2</sup> method, successfully adapting to the conditions of the health crisis situation that hindered mobility and fostering the participation of individuals located in different regions of the country.
  - iii. **The lesson methodology:** although the students started with different baseline knowledge, both the more advanced participants and those who started the course with basic capacities gave a positive rating of the contents, the designed pedagogical sequence (expressed in the gradually increasing complexity), the class didactics (questions and answers) and the theoretical and practical approach to skills development.
  - iv. These aspects are not coincidental, but rather are the result of the support and contribution of the Interdisciplinary Centre for Aquaculture Research (INCAR), of which Universidad de Concepción is a sponsor, and the decisive collaboration of the Centre for Training and Teaching Resources (CFRD), of the same university.
  - v. **The responsible institution and the teaching staff:** COPAS Sur-Austral is part of Universidad de Concepción. This is a highly renowned institution thanks to its academic background in general and in the fisheries and aquaculture sector in particular. The students themselves indicated that this prestige is seen in the quality of the instructors and the course offered.
  - vi. **The professional and sectoral exchange:** the 184 students in the programme came from 17 public institutions and 12 different locations. The space successfully enabled an intentional exchange among the different public officials through practical exercises and forum discussions. This work required interdisciplinary and intersectoral reflection, which had a ripple effect on the students' learning and afforded a way to progress towards building a common language among the different actors.
  - vii. **The materials:** three relevant materials were created as a result of the design and implementation of the course/diploma: a learning guide, a capacity-building manual and a glossary. The evaluation team consider that these outputs significantly contribute to the sustainability of this space and provide an advanced starting point for potential replication.
69. Finally, it is worth mentioning that, parallel to the execution of the course, two rounds of workshops with experts were held (130 people in total) and eight workshops with regional and communal decision-makers (122 people in total). This exercise satisfactorily fulfilled a threefold aim: i) to raise awareness about the consequences of climate change in fisheries and aquaculture, the importance of improving the capacity to adapt in these areas and presenting information on the governance mechanisms available at the national and international levels; ii) to analyse, from a local perspective, the expected impacts of climate change on fisheries and aquaculture; and iii) to identify gaps, gather and systematise recommendations for improving the capacity to adapt to climate change in the project intervention territory.

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<sup>2</sup> A learning approach that combines in-person learning taught by an instructor and online learning activities.

**Finding 7.** As a result of project execution, scattered information was consolidated and systematized and a system was established for access to and display of relevant data for decision-makers, scientists, fishers and other stakeholders.

70. The Fisheries Development Institute (IFOP) signed a letter of agreement to become the institution entrusted with developing an interoperable information system that would integrate data about fishing, aquaculture and climate change in the country (Output 1.1.2).
71. According to the evaluation, the development of this output satisfactorily responded to the shortcoming identified in the ProDoc related to the insufficient knowledge and availability of integrated information linked to performance, trends in variables, identification of effects and creation of future scenarios for fisheries and aquaculture as a result of climate change.
72. The key informants consulted expressed a positive assessment of the work done and the related outputs, tangibly seen in the launch of a tool for online storage, arrangement and display of the data gathered.
73. Although this output is rated as highly satisfactory in the evaluation, attention must be paid not only to the system created but also to the objectives sought, which are defined as: making information about fisheries, aquaculture and climate change available to its users (public officials and authorities, the scientific community, fishers and the general public) in order to improve and enable evidence-based decision-making in the short, medium and long term.
74. To achieve this aim, it is essential for the data and display thereof to be accessible and comprehensible to the different audiences or users, in addition to ensuring the necessary updates, enhancements and maintenance of the system over time. For the latter, there are already strategies underway (section 4.6).
75. Finally, it should be noted that, given the wide range of variables and indicators identified as being necessary to integrate into the system (meteorological, limnological, oceanographic, biological etc.), the IFOP had to establish collaboration relationships with other institutions that have these data (i.e. the Chilean Navy Hydrography and Oceanographic Service [SHOA], the National Directorate of Maritime Territory and Merchant Marine [DIRECTEMAR], the National Fisheries and Aquaculture Service [SERNAPESCA], the SUBPESCA and Universidad de Concepción).
76. These inter-institutional coordination efforts offered an unprecedented opportunity to arrange in a single platform information that had been scattered until the project was implemented. This process, in and of itself, is deemed one of the good practices and a success factor for the institutional strengthening component of the initiative.

### **Assessment of the effectiveness of component 1 of the project**

77. Considering the background information reviewed in the preceding paragraphs, the effectiveness of component 1 of the project is rated as highly satisfactory, thus confirming that the actions, outputs and outcomes have managed to strengthen the institutionality, reflected in an improved capacity to adapt to climate change in the fisheries and aquaculture sector at the national and local levels. This is the main effect of Outcome 1.1 of the project.

Component 2. Improved adaptive capacity to climate change of local fisheries and aquaculture in coastal communities.

**Finding 8.** The project managed to raise awareness, develop capacities and generate knowledge in the beneficiary groups about the importance of adapting to climate change.

78. In order to “strengthen and develop the capacities of fisheries and aquaculture communities and organisations in the four pilot coves”,<sup>3</sup> the project implemented the “Programme for strengthening and developing the adaptive capacities to climate change of fisheries and aquaculture communities and organisations in four coves”, designed and implemented by the Centre for Social System Studies (CESSO) in conjunction with the Fisheries Research Institute (INPESCA) (CESSO and INPESCA, 2008).
79. The key activity in this programme was the Climate Change Adaptation Workshop. In eight workshops (two per cove) with ten four-hour sessions, subjects were addressed such as management plans with an ecosystem approach for fishing and aquaculture, risk maps and management of environmental and climate information. Through these workshops, the participants developed the capacity to identify, prioritise, implement, monitor and evaluate adaptation strategies and measures at community level.
80. Within the framework of this action, 147 fishers, aquaculturists and seaweed farmers (54 percent women) participated. The number of people trained exceeded the target formulated in the project design (80 beneficiaries and 30 percent women). As part of this workshop, 22 monitors (ten men and 12 women) were trained, which also surpassed the figures stipulated in the ProDoc (20 people, five per cove and 30 percent women).
81. One of the aspects emphasised the most by the key informants as a success factor for strengthening and developing the capacities of the coastal communities was the work performed by the project’s zonal technicians, who acted as liaisons with the local communities, facilitating dialogue and developing the required trust to generate interest and participation in the pilot coves.
82. Another element the beneficiaries mentioned is the high quality of the instructors who taught the workshops. With a combination of excellent technical, human and social skills, they shared the relevant contents for the participants’ different levels of knowledge, adapting to the geographic settings in each of the four coves. In addition, the beneficiaries valued the emphasis that the instructors placed on local wisdom, which was used to build new knowledge and to teach more technically complex concepts.
83. The active and highly participatory in-person teaching method used is also seen as a success factor, rated well above the written materials such as the practical manual for artisanal fishers and small-scale aquaculturists.
84. In this regard, the learning-by-doing methodology prompted the participants to work together, carrying out reflective exercises and enabling them to identify and prioritise as a group and as individuals climate change adaptation strategies that were aligned with their context and interests. This methodology also gave participants with low literacy levels an opportunity to participate, supported by other beneficiaries and the instructors, thus encouraging cohesion within the working groups.

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<sup>3</sup> ProDoc.

85. The fifth essential factor for the programme's success is voluntary and flexible participation. By not requiring a minimum attendance to participate in the workshops, it was possible for participants to take part in activities as their work and other priorities allowed.
86. Although this output is rated positively in the evaluation, there are certain points that could have helped achieve a better outcome. One is that both the consultants and the beneficiaries feel that it is essential to include children more systematically in awareness-raising activities about the effects of climate change and the importance of adapting to it. This could strengthen the conversations between different age groups within the communities and bolster the long-term perspectives of the programme.
87. Another point highlighted by the participants that might have improved the adaptation programme results is integration of certain key contents of the workshop into economic diversification activities (Output 2.1.3). Creating this connection would have helped all the project participants, regardless of their participation in adaptation workshops, to increase their knowledge about the challenges posed by climate change for the future, how it affects them today and why it is important to adapt.
88. Finally, from a medium-term perspective, the climate change adaptation workshops were observed to have a high potential for replicability across different geographic settings in the region. To this end, the facilitator learning guide and the PowerPoint presentations created for each of the ten capacity-building sessions could be a great contribution.

**Finding 9.** The project managed to develop the coastal communities' capacity for local environmental monitoring to cope with the effects of climate change in the pilot coves through adaptation measures.

89. With the aim of "developing a prevention mechanism to cope with climate variability and climate change at the local level and support the implementation of adaptation measures in the pilot coves",<sup>4</sup> the project developed the Basic Local Environmental Monitoring Programme to improve the adaptation to climate change of the fisheries and aquaculture sector in the four pilot coves.<sup>5</sup> This programme was designed and executed by the EULA-Chile Centre for Environmental Science, Universidad de Concepción.
90. Numerous activities were implemented under this programme, managing to complete all those stipulated in the ProDoc in a satisfactory manner, including:
  - i. The creation of an environmental monitoring protocol for measuring salinity, temperature and Secchi disk, in which the local monitors trained under Output 2.1.1, supported by a technical and scientific team, were the main participants.
  - ii. The delivery to the coves of measuring equipment, environmental information display screens (the latter two in progress during the data collection process), training capsules on how to use the equipment and development of a mobile application for data logging (AquaMonit).<sup>6</sup>
  - iii. The incorporation of monitoring information generated into the interoperable information system developed under Output 1.1.2.

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<sup>4</sup> ProDoc.

<sup>5</sup> Basic local environmental monitoring programme to improve the adaptation to climate change of the fisheries and aquaculture sector in the coves: Riquelme, Tongoy, Coliumo and El Manzano-Hualaihué.

<sup>6</sup> The equipment was in the process of being distributed while the data was being gathered for this evaluation.

- iv. The publication of the *"Manual for a participatory environmental monitoring system to improve the capacity of fishery and aquaculture communities to adapt to climate change in Chile"*.
  - v. The performance of four brief evaluations on vulnerability, one at each of the pilot coves.
91. The beneficiaries interviewed also highlight the excellent teaching, technical and human quality of the trainers in this programme as one of the success factors. They coincide in emphasising that the teachers were highly sensitive and took a "collaborative community monitoring" approach, using the prior knowledge of the fishers, aquaculturists and gatherers to help them construct new knowledge.
92. While the beneficiaries interviewed rated the knowledge acquired through this training highly – given that it facilitated decision-making to increase their aquaculture production – its greatest value, from the perspective of the beneficiaries and the trainers, is its "formative" contribution.
93. The beneficiaries also highlighted how the data gathered in the local environmental monitoring system were supplemented with more extensive tracking systems used in certain coves, like the one developed by the Centre for Oceanographic and Meteorological Data (CDOM – <http://www.cdom.cl/>) used in Tongoy. The combination of data from these two systems provides local aquaculturists with precise short- and medium-term data.
94. Women, young people and those who already had some experience using monitoring instruments for aquaculture were the groups that most appreciated gaining access to this kind of knowledge. Among these three groups, the evaluation highlights how this activity engaged women. In the past, they have not had access to this type of knowledge or to training on aquaculture topics. As a result of this training, they note that not only are the data obtained useful for making informed decisions about their pilot crops but also that handling information that used to seem highly complex has bolstered their confidence.

**Finding 10.** The project managed to expand the range of opportunities that motivate productive diversification with climate change adaptation approaches. The training in aquaculture and tourism can be highlighted here.

95. As part of Output 2.1.3, the project launched a series of training activities in the four coves to incorporate productive diversification with climate change adaptation approaches. The core objective of the activities is described in the ProDoc as "to improve methodologies and production management, adopt technologies and diversify productive activities to increase the resilience of the fisheries and aquaculture communities in the pilot coves".
96. Under this output, 26 training activities were conducted by 13 independent consultants across the four coves. The training activities are arranged into five sub-topics in this report: i) aquaculture practices; ii) development of special-interest tourism strategies; iii) creation of a seal of identity; iv) identification of unusual, added value, accompanying fauna; and v) creation of thematic maps. Each of these topics is detailed below.

### **Aquaculture practices**

97. With a view to starting to explore new production alternatives for coastal communities, a series of experimental crops was developed (Chilean mussels, nori and Magellan mussels in Riquelme, nori in El Manzano, Gracilaria seaweed in Coliumo, Japanese oysters in Tongoy) and Chilean mussel seed collection in El Manzano. The goal, which was achieved, was to establish these

activities as a supplement to extraction activities, placing them in a more resilient position with respect to the effects of climate change and over-exploitation of natural resources.<sup>7</sup>

98. The beneficiaries rated the aquaculture training activities positively. Of particular note are the results achieved in the El Manzano and Tongoy coves.
99. In the case of Tongoy, the group of women who received the training successfully managed not only to learn to farm a new species (Japanese oyster), but also to launch a profitable business activity, given their prior experience in aquaculture practices, previous connection to markets and the good response of the species introduced to the environment.
100. With regard to El Manzano, where the trained group also consisted of women, they learned the complete nori farming cycle, which is a new crop species for them and also for their community. As a result, the group of women in El Manzano plans to turn this new knowledge into a productive activity that enables them to better adapt to climate change in a sustainable manner. However, the permits needed to implement this activity and the access to local markets could jeopardise their plans.
101. According to primary information gathered from the beneficiaries, these two groups were successful mainly because the beneficiaries are women. When the same training was offered to men, it was not as successful because they already had an established productive activity (fishing) and did not feel an urgent need to start a new activity (see the Gender section under Cross-cutting perspectives).
102. In these two coves, women did not historically work as aquaculturists and, in the past, did not have access to this type of business activity, so they showed greater interest in diversifying their production activities. The two groups are opening up new doors for other women in coastal communities, thus also contributing to gender empowerment.
103. One factor that contributed to the success of the training in aquaculture practices is the strong interest of the pilot coves, based on the high rate of participation of the coastal community leaders in the selection of the species to be farmed, thus adapting to the local context.

#### **Development of special-interest tourism strategies**

104. The objective of this activity was to develop productive activities to complement those that the project beneficiaries have performed in the past. To this end, integrated, sustainable tourism strategies were developed for the purpose of spotlighting and making use of the natural and cultural heritage of each of the pilot coves.<sup>8</sup>
105. The tourism strategies and tourist routes created in the four pilot coves are highly rated outputs for the beneficiaries. As a result of the training activities, the key informants highlighted that the project helped them to see the potential of their coves, understand the importance of working as a community and developing a common narrative and gain an understanding of the formalisation processes of activities they had already been exploring prior to the project. The trained beneficiaries hope to put what they have learned into practice after the pandemic is over and the country's tourism markets reopen.

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<sup>7</sup> ProDoc.

<sup>8</sup> Terms of reference "Specialist consultant in integrated and sustainable tourism in fisheries and aquaculture".

### **Creation of a seal of identity**

106. The seal of identity sought to distinguish the fishing coves as a productive, economic, social and cultural unit that implements best practices for adapting to climate change. Institutionalisation would make it possible to spotlight these practices, transforming them into a positive, differentiating feature for authorities and tourists.
107. This activity was carried out satisfactorily by launching a management model for implementation of a recognition instrument. This is a certification standard consisting of four dimensions, eight criteria and 21 compliance indicators.
108. Despite the fact that it is deemed technically feasible to implement the seal,<sup>9</sup> at the local level the rate of appropriation was not high. The beneficiaries reported that they did not observe clear economic, social or cultural incentives or benefits, and feared that the seal would become a sort of inspection entity.

### **Identification of unusual, added value, accompanying fauna**

109. These initiatives seek to spotlight species that are caught along with the target resource and were not being used. As a result, the beneficiaries learned about options for adding value and were trained to process them.
110. Although the accompanying fauna initiative was implemented in Riquelme, Coliumo and El Manzano, the added value initiative took place in all four coves (red sea squirt and the *Pseudograpsus setosus* crab in Tongoy, *Gracilaria* seaweed in Coliumo and by-catches unloaded in Riquelme).
111. While the added value practices did not always generate the profits expected by the beneficiaries, they reported that the main impact is the driving effect they have had in professionalising the practices already used (such as smoked sierra in Coliumo), or in venturing to explore new ideas like the tinned smoked oysters in Tongoy. This opened up new opportunities for adaptation practices that arose spontaneously.
112. As a result of this initiative, the processing manuals for adding value to artisanal fishing products that were created will be highly useful to other initiatives in the future.

### **Creation of thematic maps**

113. The objective of this initiative was to train fishers to create thematic maps, and to this end a digital atlas was created. The interviews with key informants and the documents gathered do not provide the necessary evidence to evaluate the impact of this activity on the coastal communities.
114. To summarise, while this evaluation gives Output 2.1.3 a satisfactory rating, some of the points expressed by the beneficiaries and consultants to be considered for improving the outcomes are:
  - i. **Access to permits to carry out aquaculture economic activities.** During implementation, access to permits was slow and complex, delaying the farming activities. For the time being, most of the pilot coves have experimentation permits, which do not allow them to perform production activities in the future.
  - ii. **Timing of the consultations.** Aquaculture crops have specific sowing and harvesting seasons. The recruiting of the trainers was not always aligned with the growing cycles.

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<sup>9</sup> Sustainability Strategy.

- iii. **The age range and gender of the beneficiaries.** Economically diversifying older fishers is no trivial matter, particularly in coves where the effects of climate change have not been felt first-hand. However, these kinds of opportunities are highly attractive to women and young people, who are looking for stable sources of income. The case of young people is compounded by the fact that they tend to have a higher educational level than their elders and their interest in entrepreneurship and risk-taking is also greater.

### **Assessment of the effectiveness of component 2 of the project**

115. Based on the results of the climate change adaptation, environmental monitoring and economic diversification practice training activities, **the effectiveness of component 2 of the project is rated as satisfactory.** The project contributed to improving the capacity to adapt to climate change of the local fisheries and aquaculture in the four pilot coves. This capacity-building helped establish more resilient fishing and aquaculture systems, affecting women and young people in particular.

### Component 3. Strengthening knowledge and awareness-raising on climate change in fisheries and aquaculture communities.

**Finding 11.** Component 3 displayed design and implementation weaknesses. The initiative's contribution to strengthening knowledge and raising awareness is not an achievement that can be attributed to the technical execution of this component.

116. The expected Outcome 3.1 for this component was achieved mainly through the execution and accomplishment of outputs linked to other components, namely, the awareness-raising, skills development and access to knowledge of the local coastal communities occurred primarily as a result of the technical execution of components 1 and 2.
117. This finding is seen partly as a problem in the formulation of the outcome and in its consistency with the related outputs and activities. In addition, the evaluators feel that there were shortcomings in effectiveness during implementation of the actions planned for this component, meaning that some of the activities carried out did not lead to effects that would contribute to the project objective.
118. One of the circumstances behind this weakness is that the project did not manage to link its communication actions in an appropriate and timely manner to the permanent team, the approach and the objectives sought in the project, despite the fact that two communication strategies were drawn up through third parties – one in September 2018 and the other in 2020, following a recommendation in the MTR.
119. This assertion does not mean that the outputs pledged in these planning instruments (bulletins, press releases, dissemination materials, children's games, etc. [Appendix 5]) were not carried out, but rather that they did not generate the expected effects described in the outcome formulation and project objective, either because they were not sufficiently disseminated, did not raise the awareness of the beneficiary groups and/or were not prepared in a timely manner.
120. The evaluation team believe that the communication strategies of GEF projects implemented by FAO could be perceived from the outset as a cross-cutting tool to be used for community and institutional sustainability and appropriation and for facilitating informed dialogue among the different stakeholders.

121. To accomplish this, it would be beneficial to define the audiences clearly at an early stage (beneficiaries, government authorities and officials and the general public) and to include in the strategies approach methods that contemplate elements of development communication and internal tools that influence public policies.
122. According to the evaluation, other features that might have fostered project communication but were lacking during the implementation cycle are the necessary connection to the M&E system as a generator of inputs, the understanding that communication is essential in managing the knowledge generated in the initiative and the usefulness of having a website and/or social media presence to disseminate the communication outputs generated.

### **Assessment of the effectiveness of component 3 of the project**

123. The actions executed within the framework of Outcome 3.1 did not generate the expected effects. This was due to design weaknesses and difficulties in coordinating with the other project components.
124. However, it was found that abundant, good quality communication materials were generated (Appendix 1) and dissemination and awareness-raising actions were undertaken in the final months of the project (June 2021), thus compensating for this shortcoming to a certain extent. For these reasons, the effectiveness of component 3 is rated as moderately unsatisfactory in the evaluation.

## **3.3 Efficiency**

**Question 3.** *How have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives? Are there any aspects that deserve subsequent monitoring?*

**Finding 12.** The human resources deployed had to be supplemented throughout the course of the project to implement the intervention strategy and properly achieves the expected outcomes and outputs.

125. The project called for a permanent human resources structure consisting of six people (one coordinator, four zonal technicians and one coordination support assistant), plus the administrative work of the FAO Representative in Chile and the LTO for advice and specialised technical support. The main tasks of this team involved technical assistance, management, monitoring and national, regional and local liaison for the project in the intervention territory.
126. Direct implementation of the planned outputs was outsourced and supervised by the team, entrusted to 22 consultancies and letters of agreement concluded simultaneously for a total sum of USD 1.5 million.
127. In addition, until 2020, the team was responsible for launching the M&E system, including accountability and production and/or review of documents.
128. The large amount of responsibility and the high-quality standards to which the team were justifiably subject led to a work overload, delays and a reduced capacity to provide suitable responses.
129. This situation was remedied after the MTR: the team gained another person and an assistant for the design and launch of the M&E system, an expert to provide document publication support, a sustainability expert was considered and the support of a communications expert was arranged

with the IFOP. These actions lightened the team's workload and made it possible to speed up execution, offering a positive outlook for fulfilling the planned technical and financial commitments in a timely manner.

**Finding 13.** The financial resources provided by GEF were sufficient to execute the activities and achieve the outputs undertaken in the ProDoc in a quality fashion.

130. GEF provided USD 2 500 000 in funding. By May 2021, having achieved the outputs and targets undertaken in the project or with good prospects for doing so, 95 percent of the budget (USD 2 378 290) had been executed, with USD 121 710 remaining to pay final wages, outstanding consulting fees, document publication and the completion of closing activities.
131. Taking this into consideration and in light of these outcomes and the good quality of the project outputs, the evaluation team consider that the financial resources stipulated were aligned with the technical implementation needs of the initiative.

**Finding 14.** The procedures for hiring external and review services for some outputs delayed the technical execution of the project.

132. The FAO Office in Chile, in line with its institutional guidelines, outlines standardised procedures for outsourcing and procurement that require review and approval of the participation by diverse national entities and even by the Headquarters in Rome.
133. The parties interviewed agree that these mechanisms are not agile and require an amount of time that was often out of touch with the project's technical implementation needs, which were, in turn, closely linked to the biological cycles of the productive activities, institutional demands (such as permit application processes) and the availability of the beneficiaries.
134. These circumstances led to occasional delays in implementation, although the evaluators feel it would be a mistake to limit the problem solely to procedural aspects within FAO. While it would be beneficial to progress in finding alternatives for simplification, the experience that the Organization has regarding the time that these administrative procedures take could be shared accordingly with the project teams so that they can include the possibility of coping with this situation in their respective planning instruments.

**Finding 15.** The changes occurring in the team and counterparts, compounded by the social, political and health situation, altered the flow of the activities implemented and the institutional appropriation of the project.

135. During the project implementation cycle, there were changes in the human resources of the team: in August 2019 the national coordinator resigned and after a short vacancy period (one month) a substitute was found for the position; the LTO was replaced in January 2020 after his assignment period ended; the person acting as zonal technician in the region of Coquimbo left the position, which was taken over by another zonal technician and the coordination support assistant.
136. As regards the partners, during the intervention cycle there were three changes in the authorities at SUBPESCA and one change in project management.
137. For both the new members of the team and for the professionals who remained in their positions, the changes in human resources required a programming inception period and time to adapt to the styles and ways of working. In turn, the change in ministry authorities and project

management required the scopes of the initiative to be adjusted and the operational, technical and political commitments undertaken by their predecessors to be renewed.

138. These circumstances, in addition to the social context that the country experienced in 2019 and the health crisis prompted by the COVID-19 pandemic, altered the flow, caused delays and affected the institutional appropriation of the project.
139. Despite all of this, the evaluation team estimates that, thanks to the high levels of quality and commitment of the human resources deployed, these situations were resolved satisfactorily. After the MTR, the team became consolidated, results-based management was strengthened and the conditions needed for institutional appropriation were generated.

### **Assessment of project efficiency**

140. The project was faced with circumstances that affected the flow of its technical and financial execution. However, by adopting corrective measures, it managed to enrich and optimise the human resources available and to disburse the entire budget amount, achieving good quality outputs. For these reasons, the project efficiency is rated as satisfactory.

## **3.4 Sustainability**

**Question 4.** *How sustainable are the outcomes achieved at a social, institutional and financial level? Are there any risks that could affect the sustainability of the project achievements and effects?*

**Finding 16.** The sustainability strategy drawn up will help guide public decision-making to ensure the continuity and scalability of the actions and processes driven by the project. The evaluation identifies potential dispersion as a risk associated with implementation of the instrument designed.

141. Just a few months before completion, the project drew up a sustainability strategy that includes seven strategic lines – or blocks – in its design, equivalent to the main outcomes of the project (Figure 3). It also identifies governmental stakeholders and public policy instruments in place to which the actions associated with each strategic line could be anchored.

**Figure 3. Strategic lines designed for the sustainability strategy**

Source: FAO, 2021a. Project sustainability strategy.

142. This instrument is a fundamental input. It guides public decision-making regarding the possibilities of scalability and replication of the actions, and for ensuring the continuity of the processes fostered as a result of project implementation. The adherence of the institutional partners to this strategy (in progress) is crucial for successful future implementation.
143. The key institutional informants believe that the strategy designed represents a step forward in project sustainability but, given that the proposal includes implementation of actions under the umbrella of numerous State institutions and/or services (more than 20), they have emphasised that execution could become fragmented in terms of time, territory and themes, running the risk of generating dispersion and fragmentation of the paths to be taken to progress towards the objectives sought.
144. Considering this possible scenario, in consultation with key governmental stakeholders (authorities and civil servants), the evaluation team consider it necessary to progress in parallel in the design of a roadmap focused on permanently strengthening the inclusion of the topic of climate change in the organisational structure of the SUBPESCA, so that this body (division, unit or other) is the one that leads and provides programming coherence to the initiatives for adapting the sector set out in the sustainability strategy designed.

**Finding 17.** Although the outlook is positive, the long-term financial and institutional sustainability of the project is not ensured.

145. In the evaluation process, sufficient information from diverse stakeholders was gathered and verified to assert that some of the project outcomes and outputs will continue after the project is finished.
146. The first output identified is the interoperable information system: the IFOP, the institution responsible for its design and launch, has pledged USD 60 000 and has managed a contribution for another USD 20 000 from the Environmental Defence Fund. This funding will enable the

system to continue operating for at least one year. During that time, new resources must be leveraged to make the necessary enhancements and updates.

147. The regional and local IWGs are another project output with ensured sustainability. By anchoring them to the CORECC and linking them to planning instruments (2017–2022 National Action Plan on Climate Change, National Adaptation Plan to Climate Change, National Adaptation Plan to Climate Change for Fisheries and Aquaculture and the Communal Environmental Strategy), they are provided with a favourable institutional environment in which to continue meeting and contributing towards climate change adaptation in the fisheries and aquaculture sector.
148. The public officials that participated in the course/diploma “Adaptation of fisheries and aquaculture to climate change” have appropriated the capacities developed as a result of this space and have integrated them into their work.
149. Although the sustainability of the diploma itself is not ensured, the production of the “Training manual on adaptation to climate change in the fisheries and aquaculture sector in Chile” and the integrated design of the course are outputs that represent a substantial step forward. In conjunction with its success and the interest expressed by the public institutions, there is a strong likelihood of replication.
150. The documentation produced (in the form of manuals, guides, reports and research, managed well in the sense of dissemination and facilitating access to the knowledge contained therein) could become a significant contribution to the expansion of the impact, scalability and sustainability of the project.
151. The evaluators feel it is important to note the interest and commitment expressed by the State institutions related to climate change, fishing and aquaculture, for the purpose of generating the conditions needed for continuity of the project after it is completed. This political will makes it possible to sense that the sustainability strategy designed is likely to be appropriated and that there are good prospects for progressing in the strengthening of the organisational structure of the SUBPESCA in relation to the topic of climate change.

**Finding 18.** The sustainability of the capacity-building actions in the local communities is ensured. In turn, the progress in diversifying production and community environmental monitoring shows varied possibilities for continuity.

152. Thanks to its focus on training, the climate change adaptation programme is sustainable. The beneficiaries who participated in the workshops have appropriated the knowledge and are starting conversations in the communities about the impact of climate change.
153. While their sustainability is not ensured, the techniques provided as part of the local environmental monitoring programme have the potential to become sustainable. This will depend on several factors, such as continuing the aquaculture practices and maintaining the monitoring instruments.
154. Within the productive diversification programme, some of the activities for which the beneficiaries were trained have greater potential to be sustainable than others. Of note here are the aquaculture activities led by groups of women and the tourism routes (despite the fact that the latter could not be executed yet due to the pandemic).
155. In turn, aspects identified as potentially jeopardising the sustainability of these activities are: access to production permits for new aquaculture species and hospitality, the lack of training and

infrastructure aligned with the new economic practices (i.e. boats and diving and customer service licences and equipment in the case of tourism), difficulties in access to capital for transforming the pilot experiences into production activities and a weak connection to local, regional and international markets.

**Finding 19.** There are moderate financial, socio-political, institutional and environmental risks to project sustainability.

156. Chile is in the midst of a constitutional discussion process, presidential elections will be held at the end of the year and in May 2021 there was a change in authorities at local (mayors) and regional (governors) levels throughout the country. This shifting context could jeopardise the sustainability of all dimensions of the project although, according to the evaluation and the key informants, this risk is deemed moderate.
157. Concern about the effects of climate change is a mainstream topic and there is consensus about the need to improve the adaptive capacity of the fisheries and aquaculture sector among the country's political and social stakeholders.
158. The institutionalisation of the proposal driven by the project, the assurance of funding in the 2022 budget act and the advocacy work that FAO could carry out in conjunction with other civil society stakeholders and the academic world with regard to the new authorities and the members of the constitutional convention will be fundamental in mitigating the risks and transforming this scenario into an opportunity.

### Assessment of the likelihood of project sustainability

159. In light of the interest and commitment shown by the government authorities and officials, the strong possibility of adopting the designed strategy and the institutional conviction of the need to strengthen the manner of coping with climate change in the sector at the organisational level, through the SUBPESCA, generate a favourable outlook and justify the positive perspectives for continuity of the effects and processes resulting from execution of the project. In light of this background information, the evaluation team consider project sustainability to be moderately likely.

## 3.5 Factors that affected project performance

**Question 5.** *What are the main factors (design, execution, monitoring, co-financing and communication) that influenced project performance?*

### 3.5.1 Project design

**Finding 20.** Except for component 3, the design of the project outcome framework reviewed displays coherent vertical logic (chain of outputs-outcomes-objectives) and its horizontal logic is aligned with indicators in the GEF Programming Strategy on Adaptation to Climate Change, although there were weaknesses in the proposed verification methods.

160. The evaluation confirms that the design of the project's vertical logic was internally consistent, meaning that the planned activities led to the achievement of the outputs, which, in turn, enabled the outcomes to be accomplished and helped improve the adaptive capacity to climate change in the fisheries and aquaculture sector (project objective).
161. The exception to this assertion is component 3, Outcome 3.1 of which was achieved, to a great extent, as a result of implementation of Outcomes 1.1 and 2.1, evidencing an inconsistency between the component design and the effects achieved during execution.

162. The MTR noted this situation and, with a view to achieving assurance of the project's sustainability, recommended refocusing the communication strategy on institutional appropriation and the beneficiaries' adherence to the processes driven by the initiative.
163. On the other hand, the expected outcome was *de facto*, that is, it did not lead to a formal redesign of the outcome. However, greater internal coherence was given to the actions promoted as part of this component.
164. As regards the horizontal logic of the project's logic framework matrix, in line with the strong strategic relevance (section 4.1), the evaluation confirms the inclusion of the outcome indicators (CCA-1 and CCA-2)<sup>10</sup> contained in the GEF Programming Strategy on Adaptation to Climate Change.
165. This strength in terms of design contrasts with the weakness of the verification methods proposed to check the degree of progress in fulfilling the outcome indicators. The design of these indicators bears characteristics typical of output indicator verification sources (quantity, quality and scope of the goods and services generated during project execution) instead of the appropriate features for outcome indicators, which should consist of instruments designed to measure the changes prompted as a result of achievement of a set of related outputs.
166. A good example of this situation can be found in the first indicator of Outcome 2.1 (type and size of the assets strengthened or managed better to bear the effects of climate change), to which the following verification methods were linked: i) annual project implementation review report (APIRR); and ii) mid-term and final evaluations, which, in and of themselves, do not have the capacity to measure or verify whether the indicator has been achieved.

### Assessment of project design

167. The evaluation team consider the project design to be moderately satisfactory. While there are strengths and weaknesses in the design, the overall assessment is positive: the chain of effects was coherent and its execution led to progress towards the project objective.

### 3.5.2 Monitoring and evaluation system

**Finding 21.** Following the recommendations in the MTR, the project bolstered the team, prepared a plan and adequately implemented a monitoring and evaluation system that, in the evaluation team's view, has the elements needed to successfully fulfil its purpose.

168. The implementation of an M&E system was gradually contemplated as a component (component 4) of the project logic, with a budget and a specific expert allocated to design it. However, as found in the MTR, until December 2019 no progress was made on the design, nor had specialised staff been hired to perform these tasks.
169. Up to that time (December 2019), the project had managed to fulfil its accountability responsibilities annually to the donor and half-yearly to FAO, but there were weaknesses in other functions performed by M&E systems, such as guiding and facilitating proper operational and strategic decision-making by the team and coordinator, acting as a tool for measurement and

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<sup>10</sup> Indicator 9 (CCA-2): Number of people trained to identify, prioritise, execute, track and evaluate adaptation strategies and measures; CCA2-Indicator 10: Number and type of institutions strengthened to identify, prioritise, implement, monitor and evaluate adaptation measures and strategies, measured as the improvement in the capacities score; Indicator 2 (CCA-1): Type and size of assets strengthened or managed better to bear the effects of change; Indicator 5 (CCA-1): communication and awareness-raising activities conducted.

internal and external communication of achievements and progress, incorporating lessons learned, systematising best practices, providing input to the communications area and support for knowledge management, among others.

170. Following up on a recommendation in the MTR, an M&E system was designed and launched, containing the minimal elements needed to successfully fulfil its aim, including:
- i. **The management structure:** until the MTR, the project had not considered the creation of a specific structure for the M&E. The coordinator, with support from other professionals, was responsible for monitoring. This shortcoming was solved by adding a professional and an assistant devoted exclusively to this task to the team.
  - ii. **The coordination bodies:** the project team held regular coordination and planning meetings in line with the technical monitoring needs.
  - iii. **The planning instruments:** the logic framework and the annual operating plans (AOP) were, rightly, the instruments used for project planning.
  - iv. **The monitoring and tracking tools:** the project provides annual and half-yearly reporting. However, weaknesses are seen in the allocation of monitoring tools and in the systematization and dissemination of best practices and lessons learned (considered in Output 4.1.2 of this component).
  - v. **The virtual space for information storage:** the information generated in the project is stored in a virtual space (Dropbox), thus facilitating access and exchanges among the team members and ensuring the availability of the verification sources and the documents developed within each of the components.
171. For stakeholders and the general public that are unfamiliar with the project details, the programme implementation reports (PIR) and/or half-yearly reports can be cumbersome and contain information that might not be relevant for these parties. In this regard, it would have been beneficial to develop a virtual space, in conjunction with project communications, in which the main achievements and relevant activities of the initiative could be displayed in a simple and visually attractive manner.

### Assessment of the project monitoring and evaluation system

172. Although an M&E system was satisfactorily built for the project, its design and launch were belated. For this reason, the evaluation team deems this factor as moderately satisfactory.

### 3.5.3 Implementation and execution of the project

**Finding 22.** FAO, as the implementing agency, satisfactorily fulfilled its role in providing technical assistance and monitoring to ensure the agreed quality standards and accountability to the donor.

173. FAO was responsible for the implementation of the project. The rating in this evaluation, as regards the functions carried out by the Organization, is satisfactory. FAO and the project team, acting in agreement and in coordination with management and the steering committee, managed to ensure that the financial resources were correctly used and accounted for, and that programming management and project supervision were in line with the expected standards.

### Assessment of the project implementation

174. The evaluation team consider project implementation to be satisfactory: FAO ensured that the minimum technical quality standards were met and that financial accounting took place according to the donor's requirements.

### 3.5.4 Financial management and co-financing

**Finding 23.** By June 2020, 99 percent of the co-financing pledged had materialized. Moreover, additional, unassessed, resources were also leveraged.

175. Financial management was handled by FAO Chile. Their experience, entailing a complete understanding of administrative procedures, ensured quality performance with no major issues.
176. With respect to the co-financing, by June 2020 (the latest record date) more than 99 percent (USD 15 683 283) of the total amount pledged (USD 15 824 398) had materialised. It is deemed highly likely that the total amount pledged in the project budget formulation was reached or even exceeded (Table 11).

**Table 11. Co-financing pledged and materialized by June 2020**

Institution	Type of co-financing	Co-financing pledged (USD) in the project formulation	Co-financing materialized (USD) – June 2020	Percentage of co-financing materialized
SUBPESCA	CASH	570 464	570 464	100%
	IN-KIND	14 219 548	14 306 152	101%
Ministry of the Environment	CASH	513 976	515 631	100%
	IN-KIND	332 445	291 036	88%
FAO	CASH	101 361	To be determined	0%
<b>TOTAL</b>		<b>15 737 794</b>	<b>15 683 283</b>	<b>99.7%</b>

177. Moreover, it was found that additional, unassessed, resources were mobilised (such as the IFOP allocating a communications expert to the project team). The leveraging of co-financing beyond what was originally planned is positive and shows the team's management capacity and the interest of the institutions in project success. For this reason, the evaluation team call on FAO and the partners to keep records of and to properly communicate the new contributions made.

#### Assessment of the project's financial management and co-financing

178. Given that the co-financing materialised and will probably exceed the planned amount and that the financial management ensured quality performance with no major issues, this factor is rated as satisfactory.

### 3.5.5 Stakeholder participation

**Finding 24.** The project partners, especially those at regional level, actively participated in project execution, gained appropriate access to information about the initiative and had fluid dialogue with other stakeholders. Stakeholder participation and communication at the national level gradually increased and improved in the latter months of implementation.

179. Stakeholder participation at the national level took place mainly through meetings of the steering committee. There were changes in the composition of this entity, which generated varied levels of interest among its members. In the last six months these changes not only stabilised, but there was even an increase in participation and various parties involved made commitments.
180. At regional and local level, the partners and other institutions related to the environment, fisheries and aquaculture in Chile have expressed their satisfaction with the mechanisms for accessing information about project implementation. The flow in the dialogue with the macro-zone technicians, the pertinence and usefulness for the IWGs formed for these purposes can be highlighted. Although the access to information related to project implementation and the

transparency of execution at all levels are rated positively by the key actors, the evaluators, in harmony with GEF's guidelines, feel that stakeholder participation must also be understood as a means for guaranteeing long-term sustainability, reproduction of outcomes and accomplishing a greater impact (GEF, 2017).

181. These objectives should be supported by a communications area in coordination with a sustainability strategy that seeks this purpose overall and from the outset. This scenario did not take shape until late 2020 (design of the second communication strategy<sup>11</sup>) and early 2021 (start of the sustainability strategy design), when these two instruments were combined into a common objective.
182. The evaluation team believe that, while there is a good chance of the project progressing in terms of institutional sustainability as a result of these actions, given the limited time for implementation, it cannot be seen as the outcome of a prolonged, substantial process of participation by the stakeholders throughout the project cycle.

### **Assessment of the stakeholder participation**

183. Given that the involvement of stakeholders at national level was not constant throughout the project cycle, unlike the case at regional and local level, where it was consistent, stakeholder participation is rated in the evaluation as satisfactory.

### **3.5.6 Knowledge management**

**Finding 25.** The project generated knowledge and a large volume of high quality documentation was produced. These materials, if accessible and distributed in a timely manner, have significant potential for contributing to the strengthening of institutional capacities, the replicability of actions and project sustainability.

184. The project produced and documented a large amount of knowledge (Appendix 1). These materials (manuals, pamphlets, scientific dissemination articles, guidelines, practice reports and consulting reports, to name a few) have high quality standards and contribute to strengthening the adaptive capacity to climate change of the fisheries and aquaculture sector in the country, to the replicability of the actions and the sustainability of the initiative.
185. In order to realise their potential, these outputs must be disseminated and must be accessible to the different target audiences (beneficiaries, decision-makers, the scientific community and public officials). Appropriate knowledge management is essential for achieving this goal. Given that the project is nearing completion, this will be a challenge for FAO and the partner institutions during the final implementation stage and, quite likely, after the initiative is finished.
186. According to the evaluation, to expand the impact, optimise project performance, contribute to institutional appropriation, improve the possibilities of scalability and replication and extend the adherence of the beneficiary groups, knowledge management – fed by a robust M&E system and supported by the communications area – should be conceived as an ongoing and regular activity rather than an activity conducted at the end of the projects.

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<sup>11</sup> Objective of the communication strategy: To spotlight the project in order to increase its impact on the communities involved and to promote its appropriation by the governing organisations.

### Assessment of knowledge management

187. Although the project generated abundant high-quality knowledge, it was not accompanied by adequate ongoing management of that knowledge throughout the course of implementation. Due to these circumstances, the evaluation team rate the knowledge management as moderately satisfactory.

## 3.6 Cross-cutting perspectives

**Question 6a. Gender.** *To what extent have gender-sensitive considerations been taken into consideration in the design and implementation of the project?*

**Finding 26.** In the project formulation and implementation, the creation of a specific gender-sensitive strategy was not considered and the instruments prepared by FAO were not used for reference.

188. When the project was designed (2015–2016), the FAO gender equality policy drafted in 2013 remained in force. However, due to shortcomings in awareness of the policy, this instrument was not deemed an input capable of guiding its formulation and subsequent implementation.
189. Thus, no diagnosis of gender gaps was made and no specific strategy to reduce them was drawn up. However, some of the components of the institutional policy were partially aligned with the initiative evaluated, the project outcomes matrix included indicators with participation targets broken down by gender (standard 1 of the FAO gender equality policy).

**Finding 27.** Although there was no gender strategy per se, as a result of project execution, positive effects were generated for the female beneficiaries.

190. Men make up 76 percent of the artisanal fishing sector in Chile.<sup>12</sup> Most of its leaders are men and there is a culture of prioritising male participation in extraction activities, while women tend to perform activities related to other links in the value chain.
191. Bearing in mind the concerns inherent to the sector, described above, the project team, based on an understanding of women's role in the fishing value chain, "planned actions geared towards strengthening their economic and social empowerment, recognising their needs and relevant capacities" (FAO, 2021b). Furthermore, the zonal technicians and the technical consultants made considerable efforts to include the women of the coastal communities in activities pertinent to them, establishing collaborative working spaces open to the inclusion of the visions, opinions and experiences of both women and men, as well as monitoring the participation of men and women in the activities performed.
192. As a result of these efforts, the evaluation found particularly positive effects on women in terms of their degree of participation in the activities and in the productive and organisational empowerment and economic improvement achieved by some of them. Women also showed high rates of appropriation of the practices fostered and of the activities in which they were trained through the project.
193. With regard to the participation of women in activities that had specific gender targets in the project design, such targets were by far surpassed. For example, according to the logic framework matrix, for the climate change adaptation workshops, a female participation rate of 30 percent

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<sup>12</sup> A total of 93 598 people are registered as artisanal fishers in the Registry of Artisanal Fishers kept by SERNAPESCA, 2020. Of this total, 76 percent (70 754) are men and 24 percent (22 844) are women. [https://www.subpesca.cl/portal/618/articles-110502\\_recurso\\_1.pdf](https://www.subpesca.cl/portal/618/articles-110502_recurso_1.pdf).

was expected and in the productive diversification activities their participation was expected to reach 10 percent, but in both cases actual participation reached 54 percent. Similar results are seen in the training offered to 349 public officials and experts, where more than 40 percent of these people are women (Naranjo Solano, Gallardo Lagno and Crowley, 2021).

194. The key informants consulted highlight two success factors: first, the fact that many of the activities are highly relevant in the search for stable, profitable production sources. Secondly, the schedules for carrying out the activities were highly flexible, organised based on the convenience and availability of the female participants.
195. Despite the success in the participation of women, the female beneficiaries expressed two features that restricted them. The first is that the leaders of the organisations in the coves are generally men, and they did not necessarily view gender equality as something favourable to the beneficiary groups in the coastal communities. Second, the lack of spaces such as nurseries to support people who care for minors might have represented an obstacle to participation.
196. In terms of empowerment, the evaluation found that some of the women bolstered their empowerment in both their productive and their organisational roles as a result of their participation in the activities performed by the project in the coastal communities.
197. One example of productive empowerment is that in two of the coastal communities in which the project was implemented, the knowledge acquired by the female participants – mainly regarding aquaculture and monitoring – afforded them access to natural resources and enabled them to make informed decisions on the use thereof. This represents a new decision-making space for these women.
198. The evaluation also observed that women were the main actors in the most successful experiences of productive diversification. The new women's cooperative in Tongoy can be highlighted, where their Japanese oyster crops managed to increase their income within the framework of project implementation. These profits stand out as unexpected outcomes, representing an increase in their capacity to adapt to the effects of climate change.
199. Furthermore, at the institutional and regulatory level, the project team reported to the evaluation team (after the data collection for this evaluation had ended) that, on 2 June 2021, a new law was passed, establishing gender equality quotas in organisations related to fisheries and aquaculture in Chile and that SUBPESCA had taken immediate action to enforce this legal provision, using the outcomes presented by the project for reference.

### **Assessment of the gender perspective**

200. Considering the background information reviewed in the preceding paragraphs, the outcomes with regard to gender equality in the project are rated as satisfactory. The project managed to train women in order to increase their presence in aquaculture production activities, thus helping to reduce their vulnerability and generating an increase in their adaptive capacity, reducing the gender gap and creating spaces for productive and organisational empowerment. However, the failure to use strategies to achieve strategic gender objectives and explicit targets for promoting the principles of equality hindered an understanding of the project's overall contribution in this regard.

**Question 6b. Participation of indigenous communities.** *To what extent have the rights of indigenous communities been respected and promoted in the design, decision-making and implementation of the project?*

**Finding 28.** Although the protocols of FAO and GEF for working with indigenous communities were not used and the project design did not identify specific objectives, targets or indicators for this group, it was implemented within a framework of respect for and inclusion of the indigenous communities present in the territories.

201. Members of three indigenous communities participated in the project: El Manzano, Quebraola and Puntilla de Quillón, all of them located in the El Manzano-Hualaihué pilot cove. The Free, Prior and Informed Consent Manual was not applied prior to project implementation because these communities had not yet registered as indigenous communities in the National Corporation for Indigenous Development (CONADI).
202. However, after the project was formulated, these three indigenous communities were informed, consulted and invited to participate in the project, although some of their members were already active participants in the project from the outset. Through an appropriate inter-cultural dialogue, pertinent, transparent information was shared, they were invited to join the project and their consent was sought. However, they participated as individuals of indigenous origin in their economic and productive roles as fishers and gatherers rather than taking part at the level of an indigenous organisation.

#### **Assessment of the participation of indigenous communities**

203. Given that the actions executed in terms of participation of indigenous peoples were neither planned nor measured and there is no evidence that effects were generated as a result of implementation, the evaluation rates the participation of indigenous communities as moderately satisfactory.

## 4. Conclusions and recommendations

### 4.1 Conclusions

204. Considering the main findings related to the questions and criteria of this final evaluation, the following conclusions can be reached:

**Conclusion 1. Strategic relevance:** The project design and implementation are closely aligned and relevant. The components, outcomes and outputs were consistent with GEF's strategic priorities, FAO's objectives, the sector-specific policies of the Chilean State and the needs of the beneficiary groups. The strong pertinence created a setting that was conducive to ensuring high levels of interest and participation among the different actors, in addition to providing a context in which institutional appropriation and project sustainability were likely to occur.

**Conclusion 2. Effectiveness – Project objective:** The evaluation concludes that the actions implemented, the outputs attained and the outcomes achieved prompted a substantial contribution to the improvement and strengthening of the capacity of institutions and the community to adapt to climate change in Chile (project objective). This effect is reflected in the technical execution of the activities and in the achievement of the goals formulated (nearly 100 percent). The main contribution stems from the execution of the programme in components 1 and 2. Although good levels of implementation were achieved in the other two components, their contribution is significantly lower.

**Conclusion 3. Effectiveness – Component 1: Institutional strengthening:** In their respective working environments, the government authorities and officials were found to have developed capacities and improvements in using tools to address the topic of climate change, adaptation to its effects and vulnerability. This outcome – accompanied by the creation of spaces for governance that led to instances of intersectoral coordination and cooperation, particularly at the local and regional levels, in addition to the launch of information systems on fishing, aquaculture and climate change that will facilitate evidence-based public and private decision-making – is an unequivocal sign that the project managed to strengthen the capacity of public institutions focused on effective adaptation to the effects of climate change.

**Conclusion 4. Effectiveness – Component 2:** The outcomes in terms of capacity-building to adapt to climate change, environmental monitoring and economic diversification practices confirm that the project significantly contributed to improving the adaptive capacity to climate change of the local fisheries and aquaculture sector in all four pilot coves. This capacity-building helped establish more resilient fishing and aquaculture systems, affecting women and young people in particular.

**Conclusion 5. Effectiveness – Component 3: Communications:** The communications component showed weaknesses in terms of both design and implementation. The activities conducted did not lead to the outcomes sought, namely, to raise awareness and prepare local coastal communities to adapt to the effects of climate change in the fisheries and aquaculture sector.

The aforementioned aim was accomplished primarily as a result of the implementation of components 1 and 2. According to the evaluation, this phenomenon is due to a design flaw in the formulation of the intervention logic of component 3 and to a weak communication roll-out, in the sense of failing to link this aspect to the project approach, objectives and team in an appropriate manner and at the right time.

**Conclusion 6. Effectiveness – Component 4: Monitoring and evaluation:** The monitoring and evaluation system was designed and launched late. However, during the stage prior to its creation the project adequately met its accountability obligations in relation to the donor and to FAO. The problem caused by this late implementation was related to a reduced capacity to generate inputs for appropriate decision-making and the necessary connection to communications and knowledge management.

**Conclusion 7. Efficiency:** During the course of project implementation, certain circumstances had an impact on the project flow (changes in the project team and partner institutions, mobility restrictions for health and social reasons and periods of work overload). However, in light of the outcomes, the volume and quality of the outputs generated, the synergies created, the possibilities in place for sustainability and a financial execution that was orderly and nearly 100 percent, the evaluation team consider that project efficiency is satisfactory.

**Conclusion 8. Cross-cutting perspectives: Gender:** Despite the fact that the project design did not include an explicit strategy aimed at contributing to the gender equality objectives contained in the institutional policies of FAO and GEF, positive effects were found in closing the gender gap as a result of women's participation in the project. These were mainly evidenced in the increased access and decision-making power over natural resources by some female participants and the economic benefits that some of them are experiencing as a result of the activities developed within the project framework.

**Conclusion 9. Cross-cutting perspectives: Indigenous communities:** Although the project did not consider a strategy for explicitly informing and including indigenous communities, the project activities were respectful of their inclusion. Through an appropriate inter-cultural dialogue, pertinent, transparent information was shared, they were invited to join the project and their consent was sought.

**Conclusion 10. Institutional sustainability:** The interest and commitment shown by the government authorities and officials, the strong possibility of adopting the designed sustainability strategy and the institutional conviction of the need to strengthen the way of coping with climate change in the sector at the organizational level, through SUBPESCA, generate a favorable setting and justify a good outlook for the project's sustainability.

**Conclusion 11. Community sustainability:** Although the activities implemented in the project were highly rated by the beneficiaries, their interest in and commitment to the sustainability of these activities is varied. While some beneficiaries are highly committed to continuing with some or several of the activities for which they were trained, others hope to assess this after the pandemic has ended, and a further group appreciates the training opportunity afforded by the project but does not see a means of independently executing the activities learned.

## 4.2 Recommendations

205. The evaluation team deem it appropriate to issue the following recommendations:

### **Recommendation 1. To FAO, SUBPESCA and the Ministry of the Environment, regarding the sustainability and scalability of the project.**

Design a roadmap with objectives for the short term (sustainability strategy), medium and long term aimed at bolstering inter-ministerial and interregional collaboration and inclusion of the topic of climate change in the organizational structure of SUBPESCA to enable this body to lead and provide programming coherence to the adaptation initiatives in the sector.

**Suggestion 1:** As a means of promoting dialogue and engagement, it would be advisable to foster a space, in the short term, for training and exchanging experiences, in which the zonal managers and civil servants at the Ministry of the Environment in the regions participating in the project as well as in those that did not take part can participate.

**Suggestion 2:** Design and launch mechanisms for participation and contributions by the members of the Interinstitutional Working Groups, incorporating the lessons learned in the project, in the updated version of the sectoral adaptation plan and future regional plans.

**Suggestion 3:** Launch a new version and offer replicas of the "Adaptation of fisheries and aquaculture to climate change" diploma for public officials who are interested but did not participate in the first version.

**Recommendation 2. To FAO, SUBPESCA and the Fisheries Development Institute, regarding knowledge management.**

**To FAO.** Design and launch a national and/or regional archive in an attractive format in which to save and share the documentation produced in this project and, potentially, in other projects.

**Suggestion:** Add a toolbox and search engine and/or filter by theme, territory (geo-referenced) and time.

**To the Fisheries Development Institute.** Investigate the possibility of having differentiated formats for access and display of the data linked to the interoperable system: one for people with scientific knowledge and interest, and a simplified version for fishers and the general public.

**To SUBPESCA.** Make a website available to the project in order to improve the visibility of the outcomes achieved and to exchange information, experiences and the knowledge generated in the initiative.

Recommendation 3. To FAO, regarding the timing of sustainability strategies.

To increase the chances of sustainability, it would be beneficial to contemplate the creation of strategies in the design of projects and to implement them from the outset.

Recommendation 4. To FAO, on project communications.

Strengthen the support provided by the communications area of the FAO Representative in Chile during initial project phases in order to develop skills on the teams and to provide, through dialogue and agreement with the partners, a common framework and minimum standards that the communication strategies and implementation should meet.

**Suggestion:** Project communications could be sub-divided into two phases: i) strategy design, graphic line, videos, manifestos and key messages entrusted to specialized external services; and ii) deployment of the strategy entrusted to a professional on the project team.

Recommendation 5. To FAO, SUBPESCA and the Ministry of the Environment, on the exchange and retrieval of successful experiences.

As a way of spotlighting the participation of the beneficiary groups and partially compensating for the lack of in-person meetings, it would be advisable to create audiovisual capsules that describe the process, effects and possible impacts that a few or several of the experiences promoted in each of the pilot coves had on the lives of the beneficiaries.

**Suggestion:** Use the presentation of the material created as an opportunity to gather the diverse actors at a local/regional closure workshop.

Recommendation 6. To FAO, on project monitoring and evaluation.

It would be advisable for FAO-Chile to have specialized staff members to provide constant support and/or to take charge of the design, launch and implementation of the monitoring and evaluation systems of the projects implemented.

Recommendation 7. To FAO Chile, on the inclusion of the gender equality strategy in the projects it designs, allocating the necessary resources for their execution.

Include in the design the development of a gender-sensitive strategy aligned with the specific needs of the project setting, following the gender policies and guidelines of FAO and GEF (for GEF projects).

**Suggestion:** Include specialised profiles and accompany the inclusion of the gender perspective with a communication strategy, training for the technical team and a sufficient budget allocation.



## 5. Lessons learned

206. As a result of the evaluation conducted, it was possible to glean the following lessons learned:

**Lesson learned 1.** The use of existing intersectoral coordination spaces in public institutionality and the programming of actions related to these spaces ensures greater participation and increases the chances of anchoring and sustainability over time.

**Lesson learned 2.** By generating inclusive local governance spaces in terms of territory and sectors, the participation of the stakeholders and the possibility of generating synergies during project execution improves, as well as increasing the likelihood of project sustainability.

**Lesson learned 3.** There is better adherence to adaptation practices among young people and women. This situation is dependent on the expectations of economic improvement, awareness about the effects of climate change, a greater inclination towards entrepreneurship and behaviors learned in response to the public offering by the adult and male beneficiaries.

**Lesson learned 4.** Although it is possible to progress in project sustainability in the short term by anchoring the initiatives to existing public policy instruments, in the medium and long term, public institutionality is needed to provide organizational and mainstreaming guidance on matters related to climate change in the fisheries and aquaculture sector.

**Lesson learned 5.** Knowledge management, understood as the systematization, exchange and dissemination of best practices, lessons learned, outcomes and outputs (documents, manuals, visual materials, training, databases, etc.), should be a regular activity in projects (fed by a robust monitoring and evaluation system and supported by the communications area). This would contribute to institutional appropriation, the possibilities of scalability and replicability and the participation and adherence of the beneficiary groups, in addition to other improvements in project performance.

**Lesson learned 6.** The figure of a facilitator and liaison, entrusted to the macro-zone coordinators in the project, was fundamental in achieving appropriation and local awareness, in addition to being essential to the success of the regional and local governance spaces (Interinstitutional Working Groups) promoted by the project.

**Lesson learned 7.** The recommendations in the Mid-Term Review were essential for remedying shortcomings. To increase the chances of correcting the weaknesses identified on time, this should have been done in the middle of the project execution period instead of belatedly, as was the case.

**Lesson learned 8.** The prospects of sustainability would be more promising if this aspect had been considered at the early stages of the project and, ideally, a strategy should be designed in the formulation phase as a specific, cross-cutting output.

**Lesson learned 9.** Communication actions are essential. They bolster transparency, help raise awareness and keep up the stakeholders' interest. They are also a tool for institutional and community appropriation and offer support for managing the knowledge generated, among other purposes.

**Lesson learned 10.** Although changes in government officials and authorities are common, they affect the project's flow of communication, levels of appropriation, performance and capacity to influence. Having advisory services and/or human resources specialized in political influence would help mitigate this type of risk.

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