Food and Agriculture Organization of the United Nations

Terminal evaluation of the project "Strengthening and development of instruments for the management, prevention and control of the beaver (*Castor canadensis*), an invasive alien species in Chilean Patagonia"

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Terminal evaluation of the project "Strengthening and development of instruments for the management, prevention and control of beaver (*Castor canadensis*), an invasive alien species in the Chilean Patagonia"

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Abstract

The terminal evaluation of the project "Strengthening and development of instruments for the management, prevention and control of beaver (*Castor canadensis*), an invasive alien species in the Chilean Patagonia" (GCP/CHI/034/GFF, GEF ID: 5506) of the Food and Agriculture Organization of the United Nations (FAO) and the Global Environment Facility (GEF) was carried out to present its results to the donor, the GEF, the Government of the Republic of Chile and the beneficiaries of this project. The objective of the terminal evaluation was to identify the effectiveness and progress towards the expected impact of the project, as well as the efficiency and sustainability of the changes produced. The main audience of the evaluation is the project steering committee, the project team, the representatives of FAO Chile, the FAO-GEF Coordination Unit, the national and regional counterparts in execution, the beneficiaries and other national stakeholders.

The terminal evaluation determined that the project achieved its established objectives. The main results of the project include: a) the development of a governance model for the management of beavers in the Magallanes Region with a management plan that is currently in the process of being approved as a regional public policy – which represents the first work plan for an invasive alien species (IAS) at the national level; b) the creation and implementation of the Information, Monitoring and Early Warning Coordinated System (SIAT, by its Spanish acronym), which is a key decision-making tool for the management and handling of beavers and an innovative and pioneering instrument in South America that may also be adapted to monitor other IAS in other territories; c) the implementation of a communications strategy from the beginning of the project, which made it possible to transmit a consistent message regarding IAS management, as well as raise awareness, provide information and disseminate the work of the project among civil society actors, public sector decision-makers and beneficiaries; and d) the execution of model experiences in pilot areas and in different ecosystems with different ownership structures (protected areas and private multi-use land), making it possible to verify the methodologies for adequate beaver management in the field. This enabled the development of a manual of good practices to transmit this knowledge to future users in the Magallanes Region.

Based on the findings, this evaluation generated conclusions, valuable lessons learned and recommendations. The recommendations include: take follow-up actions that are necessary for the management plan to be approved by the regional council and implemented urgently (especially trapping); continue implementing intensive training actions and use of the SIAT; continue working together with a strong and unified communications and awareness raising strategy; and include an adequate approach to gender issues, Indigenous Peoples and vulnerable groups in the operational instruments of the management plan.

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The team also acknowledges the support of Chile's public institutions and project partners, especially the authorities and officials of the Ministry of the Environment, the National Forest Corporation (CONAF, by its Spanish acronym), the Agriculture and Livestock Service (SAG, by its Spanish acronym) and the Wildlife Conservation Society (WCS) from the central and regional offices in Magallanes and Chilean Antarctica. We greatly appreciate their time and the valuable information provided for this evaluation.

In addition, the evaluation highlights the active collaboration of the officials of the FAO Country Office in Chile and the FAO Regional Office for Latin America and the Caribbean. We are very grateful to the entire team for their availability to be interviewed, their permanent support, the facilitation of documentation, and transparency in the access to data and information relevant to the development of the evaluation.

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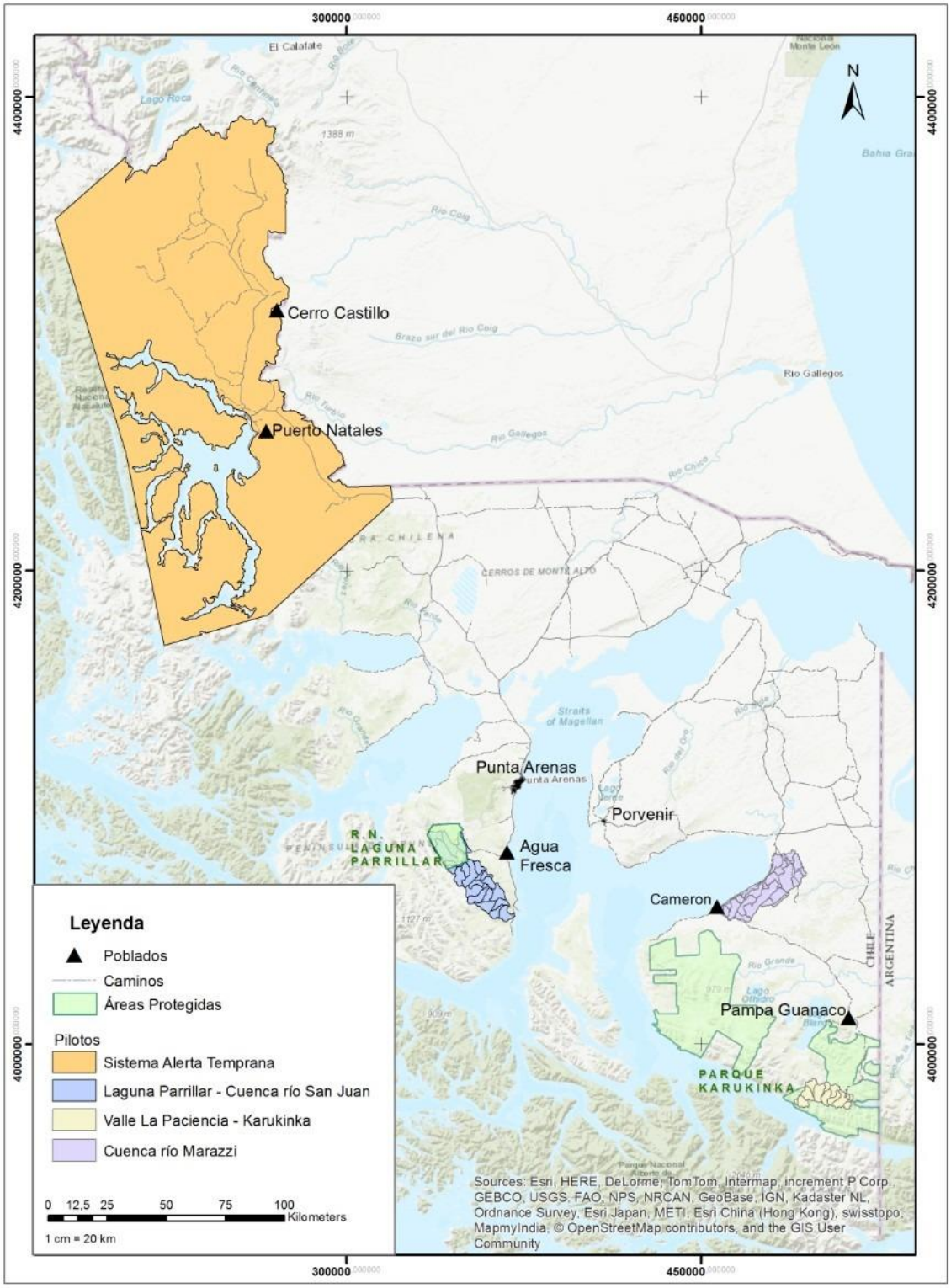
Map

Figure 1. Project map, indicating the areas of the pilot projects



Source: FAO. 2022. *GEF Castor Chile Project*. Map conforms to the United Nations. 2010. *Map of Chile*. https://www.un.org/geospatial/content/chile

Abbreviations and acronyms

CONAF	National Forest Corporation, by its Spanish acronym
FAO	Food and Agriculture Organization of the United Nations
FNDR	National Fund for Regional Development, by its Spanish acronym
GEF	Global Environment Facility
IAS	invasive alien species
M&E	monitoring and evaluation
MTR	mid-term review
PIR	Programme Implementation Report
PMU	Project Management Unit
PRODOC	project document
SAG	Agriculture and Livestock Service, by its Spanish acronym
SBAP	Biodiversity and Protected Areas Service, by its Spanish acronym
SIAT	Information, Monitoring and Early Warning Coordinated System, by its Spanish acronym
SIMBIO	Biodiversity Information and Monitoring System, by its Spanish acronym
TOC	theory of change
TOR	terms of reference
WCS	Wildlife Conservation Society

Executive summary

Introduction

1. This report presents the results of the terminal evaluation of the project "Strengthening and development of instruments for the management, prevention and control of beaver (*Castor canadensis*), an invasive alien species in the Chilean Patagonia" (GCP/CHI/034/GFF). The project is known in Chile as the "GEF Castor" project, which was financed by the Global Environment Facility (GEF) in its fifth replenishment cycle. The total budget for this project was USD 7 790 585, including an allocation of USD 2 153 882 from the GEF. The implementing agency is the Food and Agriculture Organization of the United Nations (FAO), represented by its Country Office in Chile. The Chilean Ministry of the Environment, through its Natural Resources and Biodiversity Division, was the executing agency for the project. The global environmental objective of the project was to improve the subnational institutional frameworks for the control, prevention and effective management of invasive alien species (IAS) in ecosystems of high value for biodiversity in Magallanes and Chilean Antarctica. In addition, its development objective is to incorporate the conservation of biodiversity in the management of productive landscapes through the development of capacities that allow for adequate management of the risk of biological invasions.

2. The evaluation was carried out with a dual purpose. First, it presents the project results to the donor (the GEF) and the Government of the Republic of Chile. Second, it has a learning objective. Lessons learned were identified to ensure the sustainability and scalability of the results and to give continuity to the processes initiated by the project. This arose from the process of assessing the achievement of results in terms of relevance, effectiveness, efficiency and sustainability.

3. The terminal evaluation covered the entire project execution period from the beginning of its implementation (July 2017) to the end of the report writing phase (September 2022). The evaluation was carried out based on the principles of integrity, honesty, confidentiality, systematic investigation and cultural sensitivity. The terms of reference (TOR) of this terminal evaluation include 42 evaluation questions (see Table 1). The evaluation process adopted a participatory, consultative and transparent approach. The terminal evaluation was guided by the norms and standards of the United Nations Evaluation Group (UNEG, 2016).

Main findings

Relevance: Highly satisfactory

4. The results of the project are largely consistent with the focal area and operational strategies of the GEF, national priorities and the FAO Country Programming Framework in Chile, and the needs of the beneficiaries. In particular, the project was in line with the priorities and operational strategies of the GEF for the biodiversity focal area. Specifically, this is through Outcome 2.3: improved management frameworks to prevent, control and manage IAS. The terminal evaluation found that the GEF Castor project was in line with Sustainable Development Goal 15, Life on Land, especially target 15.8: "By 2020, introduce measures to prevent the introduction and significantly reduce the impact of IAS on land and water ecosystems and control or eradicate the priority species".

5. The design of the project, including its components and geographic coverage, was appropriate to deliver the expected results. This is because it integrated the development of a governance framework with demonstration activities and management for results.

6. The relevance of the project, for both the region and the country, has increased from its design to its conclusion. This was largely due to the project's ability to adequately respond to the challenge of controlling beavers in the region and conserving Patagonian forests and ecosystems, which contributed to broadening the relevance of the project's objectives.

Effectiveness: Satisfactory

7. The achievement of the project's global environmental objective can be verified considering its satisfactory results (as shown by its high level of achieved indicators). This corresponds to improving the subnational institutional frameworks for the control, prevention and effective management of IAS in ecosystems of high value for biodiversity in Magallanes and Chilean Antarctica. This achievement is expressed in the strengthening of the institutional frameworks in the region and the development of instruments and technical capacities to manage the effective protection of biodiversity from the impacts of IAS – specifically in the case of the beaver.

8. The project also fulfilled its development objective, which corresponds to incorporating the conservation of biodiversity in the management of productive landscapes through the development of capacities that allow for adequate management of the risk of biological invasions. This achievement is expressed through the work carried out directly with cattle ranches in Magallanes and Chilean Antarctica. The impact achieved by the project in the livestock sector is recognized in terms of a change of perception among farmers on the importance, necessity and urgency of controlling the beaver to preserve ecosystems and their services, as well as in the support obtained on the need to implement the management plan – not only in natural ecosystems but also in productive sectors. This objective was also achieved through the development of training sessions for farmers, which ranged from recognition of the invasive species (beaver) and the identification of signs of its presence to instruction on control methods that were tested and verified in the pilot project areas.

9. The management and governance frameworks developed by the project, if properly implemented, will ensure the effective management and control of the beaver invasion on the Magallanes Archipelago and the Brunswick Peninsula. The project established the Information, Monitoring and Early Warning Coordinated System (SIAT, by its Spanish acronym) for decision-makers. This is an operational tool that provides updated, systematized and accessible information for the management of beavers in the Magallanes Region. In addition, the project created Chile's first ever management plan for IAS, providing guidelines and a framework for coordinated action in the Magallanes Region over a 15-year period.[1] A project was presented to the National Fund for Regional Development (FNDR, by its Spanish acronym) of Magallanes to partially finance the first two years of the management plan's implementation. This proposal is currently in the process of being approved as a regional public policy through the regional council.

[1] An Agriculture and Livestock Service (SAG, by its Spanish acronym) representative indicated that the National Fund for Regional Development (FNDR) management plan and project is not widely known in the institution and could be the subject of further discussion at the sectoral level.

10. The project strengthened the recognition by regional public institutions and civil society actors on the urgent need to carry out beaver control and eradication practices, as well as adopt measures to promote the restoration and recovery of ecosystems in the Magallanes Region. The project verified the effectiveness of the control and monitoring methods used in the pilot projects developed – both in areas of native forest and peatbog ecosystems and on multi-use privately owned land in the Magallanes Region. These actions must be continued in order for the beaver invasion to be effectively controlled and for the ecosystems to continue their recovery processes.

11. The project achieved a successful implementation through results-based management. This is reflected in three approved extensions to comply with the provisions of the project document (PRODOC). The work carried out from the mid-term review (MTR) to the end of implementation is highlighted. This focused on an exit strategy to ensure sustainability and progress towards the expected impacts. The main results that demonstrate sustainability are: the development of a governance model with a management plan converted into a regional public policy; the creation and implementation of the SIAT; and the publications and manuals that present valuable information in various areas related to beaver management. This includes experiences (development of pilot projects), indications and recommendations to be implemented in future experiences and the communications strategy. Indeed, this is a key aspect when addressing the management and handling of IAS.

12. The project has satisfactorily achieved all of the expected results, as shown by its achievement indicators (Satisfactory: achievement of project results). In addition, the project made significant advances towards the achievement of the environmental and developmental objectives established in the PRODOC (Satisfactory: progress towards project results and objectives).

Efficiency: Moderately satisfactory

13. The project's financial and human resources were sufficient to achieve the outputs and outcomes proposed in the project design. The efficient use of resources (financing, equipment, experiences, contracts) ensured that all of the proposed outputs were produced. A project team of high technical quality was formed, which was able to use the resources in a diligent and timely manner. This efficient use of resources translated into an appropriate allocation of funds for the different consultancies involved in the generation of various outputs (such as the creation and implementation of the SIAT), the adequate execution of four pilot demonstration experiences, the printing of dissemination material (such as the good practices manual associated with beaver management) and workshops to exchange experiences on beaver management, among other results. Although the project had to face changes in the political, social and health contexts during its implementation, which resulted in the request and approval of three extensions, it showed a high level of adaptability to address these changes and achieve the objectives set out in the PRODOC.

Sustainability: Moderately likely

14. The project results achieved at the environmental, social, institutional and financial levels are largely sustainable. However, there are some aspects that must be strengthened and risks that must be managed to ensure the continuity of the processes initiated by the project. For example, it is important that the SIAT is 100 percent operational and that the

management plan confirmed financing for a horizon that goes beyond two years (which is the execution period that currently has funding secured through the FNDR grant). In addition, the integrated approach of the capacity development activities helped the beneficiaries at the regional level to acquire greater capacities in biodiversity, ecosystem restoration and IAS issues.

Factors affecting performance: Satisfactory

15. **Quality of project design and launch (Moderately satisfactory):** the quality of the project design was adequate in allowing the project to start in a timely manner. However, among the limitations, it is worth noting the lack of a key stakeholder involvement strategy. Further, the design did not consider that the project would be developed in a remote region with climatic limitations affecting activities in the field (seasons, especially winter). There were also difficulties in contracting service providers and consultancies (for example, the consultancy developed by the SIAT), which had to be tendered in other regions of the country. This generated delays in the timely implementation of the project. Limitations were also identified in the launch stage.

16. **Monitoring and evaluation (M&E) system (Moderately satisfactory):** the project was approved without an adequate M&E plan, which affected the decision-making capacity and the monitoring of progress towards the expected results. During project implementation, minimum M&E requirements were met. However, a robust M&E system was not considered a priority by the project.

17. **Quality of implementation (Satisfactory):** FAO satisfactorily fulfilled its role as implementing agency and successfully carried out the project identification, concept note preparation, monitoring and supervision.

18. **Quality of execution (Satisfactory):** FAO, as co-executing agency (direct implementation modality), together with the Ministry of the Environment (executing agency), satisfactorily fulfilled its functions related to the management and administration of the project. However, a lack of flexibility in some operational procedures created difficulties for work in a remote region.

19. **Financial management and mobilization of expected co-financing (Moderately unsatisfactory):** the project presented a lower-than-expected materialization of co-financing (60 percent of the expected amount) by Chilean state institutions. This was attributed to external factors in the social and health environment. However, this situation did not generate significant impacts on the development of outputs and the achievement of outcomes and objectives.

20. **Project associations and stakeholder participation (Highly satisfactory):** although not considered in the project design, the involvement of key partners and counterparts is considered timely and participatory. It allowed for the adequate development of project implementation. During the implementation stage, the involvement of the interested parties was carried out at different levels and in different ways, depending on the actor, and ensured the adequate achievement of project results.

21. **Communications, knowledge management and knowledge products (Highly satisfactory):** the communications strategy and knowledge management approach of the

project's experiences developed, results achieved and lessons learned were addressed and executed successfully. This was one of the strong points of the project.

Cross-cutting issues

22. **Gender (Moderately unsatisfactory):** the project, to a large extent, did not consider gender aspects in its design, implementation or monitoring. It also did not include the objective of guaranteeing gender equity in participation and benefits or contributing to the empowerment of women among its indicators and goals.

23. **Minority groups (Moderately unsatisfactory):** the project did not adopt specific approaches for minority groups, including Indigenous Peoples, disadvantaged people, vulnerable people, people with disabilities and youth.

24. **Environmental and social safeguards (Highly satisfactory):** environmental and social safeguards were adequately considered in project design and implementation. The classification adopted in the PRODOC was appropriate.

Conclusions

25. This terminal evaluation concluded that the overall rating of the project was Satisfactory, recognizing that the level of achievement of the outcomes and objectives was as expected. In fact, there were deficiencies in just a few criteria. The most highly evaluated criteria were the following: strategic relevance; communications, knowledge management and knowledge products; and environmental and social safeguards (assessed as Highly satisfactory). The criteria of efficacy, efficiency, quality of implementation and execution, and partnerships and stakeholder engagement were also highlighted, being assessed as Satisfactory. Those criteria identified as Moderately satisfactory were the design and preparation of the project and the implementation of the M&E plan. Finally, the project obtained a lower evaluation (Moderately satisfactory) under the management and mobilization of co-financing, M&E design, gender, and issues related to Indigenous Peoples and vulnerable communities.

26. The terminal evaluation identified 12 conclusions based on the previously mentioned findings. These conclusions are related to each evaluation criterion (see details in section 4.1 Conclusions). The Evaluation Team drew eight relevant lessons that highlight strengths or weaknesses in project preparation, design and implementation. The lessons learned are related to the following aspects: 1) the establishment of governance mechanisms and institutions; 2) the relevance of the binational agreement; 3) knowledge management; 4) communications and policy impact; 5) administrative procedures that improve efficiency; 6) challenges of working in a remote, southern region; 7) use of social networks; and 8) changes of governments and authorities.

Recommendations

27. This terminal evaluation presents seven recommendations, comprised of 20 actions and one suggestion, aimed at FAO, project implementing partners and other relevant stakeholders (for example, the Governments of the Republic of Chile and the Argentine Republic). These recommendations seek to improve the sustainability of project results and increase the likelihood of success in future GEF projects.

Recommendation 1. The project partners (the Ministry of the Environment, the National Forest Corporation [CONAF, by its Spanish acronym], the Agriculture and Livestock Service [SAG, by its Spanish acronym], the Wildlife Conservation Society [WCS]) should follow up on the actions necessary for the management plan to be approved by the regional council and implemented urgently.

Recommendation 2. The Ministry of the Environment should implement permanent training and use of the SIAT, especially for the citizen science module and for key stakeholders in the Magallanes Region. In fact, the SIAT is recognized as a tool with great potential for decision-making for beaver management in scientific and, above all, operational terms.

Recommendation 3. The project partners (the Ministry of the Environment, CONAF, SAG, WCS) should continue working together with a strong and unified communications and awareness raising strategy, as established in the action plan and the FNDR.

Recommendation 4. The project partners (the Ministry of the Environment, CONAF, SAG, WCS) should include an adequate approach to gender issues, Indigenous Peoples and vulnerable groups in the operational instruments of the management plan. This includes the actions planned for the next two years through the FNDR.

Recommendation 5. The Argentine and Chilean Governments and especially the implementing partners of the GEF IAS projects in the two countries should maintain and strengthen their collaboration mechanisms. It is advised that they work together in a coordinated manner to achieve the eradication of the beaver in Patagonia.

Recommendation 6. FAO formulators of the GEF projects in Latin America and the Caribbean, including the GEF focal points, should include a set of seven key actions to improve their design in the PRODOC of future GEF projects (see details in this report).

Recommendation 7. In future GEF projects in Latin America and the Caribbean, FAO formulators, including GEF focal points, should make proper use of the project launch phase. This includes updating the instruments for the implementation stage (considering the time since the design of the project), defining responsibilities and deadlines for contracting and acquisitions, and the training of project teams in administrative, operational and the necessary soft skills for an adequate project launch.

Executive Summary Table 1. The GEF evaluation criteria rating table

GEF criteria/subcriteria	Rating[i]	Summary comments
A. STRATEGIC RELEVANCE		
A1. Overall strategic relevance	HS	The project demonstrated high strategic relevance for the host country.
A1.1. Alignment with the GEF and FAO strategic priorities	HS	The project was in line with the biodiversity priorities and operational strategies of the GEF and FAO.
A1.2. Relevance to national, regional and global priorities and beneficiary needs	HS	The project was relevant to national and regional IAS priorities and met the needs of the beneficiaries.
A1.3. Complementarity with existing interventions	HS	The project had excellent complementarity with the GEF IAS project in Argentina, also implemented by FAO.
B. EFFECTIVENESS		
B1. Overall assessment of project results	S	The results of the project contributed significantly to the region, having strengthened institutional frameworks, instruments and capacities for the control, prevention and effective management of beavers.
B1.1. Delivery of project outputs	S	The project has satisfactorily achieved all the expected results, as shown by the high level of its achievement indicators.
B1.2. Progress towards outcomes[ii] and project objectives	S	The project promoted significant advances towards the achievement of the environmental and development objectives established in the PRODOC.
B1.3. Likelihood of impact	S	The project is likely to achieve the long-term effects stated in its theory of change (TOC).
C. EFFICIENCY		
C1. Efficiency[iii]	S	Project resources were used in a timely manner, even though some administrative procedures adopted by FAO slowed down execution. Three no-cost extensions were required.
D. SUSTAINABILITY OF PROJECT OUTCOMES		
D1. Overall likelihood of risks to sustainability	ML	There are moderate risks to sustainability, but the project has taken steps to mitigate most of them.
D1.1. Financial risks	ML	The continuous flow of financing over 15 years will be necessary to implement the management plan. Resources are guaranteed only for the first two years.
D1.2. Sociopolitical risks	ML	Changes in the perception of the population and priorities of the social agenda can reduce the sense of urgency and relevance of combating the beaver threat.

GEF criteria/subcriteria	Rating[i]	Summary comments
D1.3. Institutional and governance risks	ML	The main risk is the non-implementation of the governance mechanisms provided for in the management plan.
D1.4. Environmental risks	ML	Three risks were identified: beaver reinvasion, slow natural recovery of ecosystems and climate change.
D2. Catalysis and replication	ML	The management plan and the SIAT were developed as instruments to extend the results to the entire Magallanes and Chilean Antarctica and can serve as a model to be replicated in other regions. However, there are some risks to the sustainability of their implementation and use.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and readiness[iv]	MS	Although there were deficient aspects, the project design was adequate.
E2. Quality of project implementation	S	The implementation was done properly according to the guidelines of the donor (the GEF).
E2.1. Quality of project implementation by FAO (Budget Holder, Lead Technical Officer, Project Task Force, etc.)	S	FAO has satisfactorily carried out its work as an implementing agency, with some limitations in its implementation.
E2.2. Project oversight (project steering committee, project working group, etc.)	S	The Ministry of the Environment, in close coordination with other members of the steering committee, adequately supervised the project.
E3. Quality of project execution For decentralized projects: Project Management Unit (PMU)/Budget Holder For Operational Partners Implementation Modality projects: Executing agency	S	Implementation was satisfactory, however, some inflexible FAO administrative procedures created difficulties for the operation in a remote region.
E4. Financial management and co-financing	MU	The lower-than-expected materialization of the co-financing (60 percent of the projected amount) was attributed to external factors that led to budgetary difficulties.
E5. Project partnerships and stakeholder engagement	HS	Stakeholder engagement was timely and occurred to varying degrees and forms.
E6. Communications, knowledge management and knowledge products	HS	This was one of the strongest and most valued aspects of the project, allowing adequate visibility and positioning of the issue in the region.
E7. Overall quality of M&E	MS	The GEF minimum requirements were met, but the project did not have a robust M&E system.
E7.1. M&E design	MU	The project was approved without a proper M&E plan. It was indicated that the M&E system would be defined during project implementation.
E7.2. M&E implementation plan (including financial and human resources)	MS	During implementation, the project met the minimum M&E requirements, operating in a limited but satisfactory manner.

GEF criteria/subcriteria	Rating[i]	Summary comments
E8. Overall assessment of factors affecting performance	S	Some factors negatively affected project implementation (e.g. co-financing and M&E design), but others promoted it (e.g. communications and partnerships).
F. CROSS-CUTTING ISSUES		
F1. Gender and other equity dimensions	MU	The project was not designed to contribute to gender equity nor the empowerment of women.
F2. Human rights issues/Indigenous Peoples	MU	The project did not consider specific approaches for minority groups, Indigenous Peoples and vulnerable people.
F3. Environmental and social safeguards	HS	Environmental and social safeguards and environmental standards were adequately considered in project design and implementation.
Overall project rating	**S**	

Notes: [i] See rating scheme in Appendix 3.

[ii] Assessment and ratings by individual outcomes may be undertaken if there is added value.

[iii] Includes cost efficiency and timeliness.

[iv] This refers to factors affecting the project's ability to start as expected, such as the presence of sufficient capacity among executing partners at project launch.

See Appendix 3 for more information on the GEF evaluation criteria rating system.

1. Introduction

1.1 Purpose of the evaluation

1. The terminal evaluation of the project "Strengthening and development of instruments for the management, prevention and control of beaver (*Castor canadensis*), an invasive alien species in the Chilean Patagonia" (GCP/CHI/034/GFF), financed by the Global Environment Facility (GEF), was provided in the project document (PRODOC) in accordance with the requirements of the GEF and the Food and Agriculture Organization of the United Nations (FAO).

2. The evaluation was carried out with the purpose of presenting the results to the donor (the GEF), the Chilean Government at the national level, the Magallanes Region, which has been a counterpart in the co-financing and execution of the project, and beneficiaries.

3. This evaluation exercise also had a learning purpose. Lessons learned were identified and systematized to sustain and expand the results and give continuity to the processes initiated by the project. This arose during the process of assessing the achievement of results in the areas of relevance, effectiveness, efficiency and sustainability. The evaluation examined the factors that contributed to or limited the achievement of results, the reasons and circumstances for the results achieved or not achieved, as well as the good practices of the project.

4. In addition, the findings, lessons learned, conclusions and recommendations provide evidence for the design of new projects and the improvement of FAO's implementation or operational procedures and mechanisms in other projects and initiatives, as well as their incorporation into public policies. This includes the dissemination of information and good practices for decision-makers and administrators of other projects related to invasive alien species (IAS) and biodiversity issues.

1.2 Target audience

5. The main target audience of the evaluation is outlined in the following points.

   i. **Project management committee:** it will use the findings, recommendations and lessons learned from the evaluation to promote the institutionalization and appropriation of the project outcomes by the different interest groups in order to ensure the sustainability of the project results and expand its impact in successive phases. In addition, the committee can share the good practices and technical outputs of the project with other interested stakeholders.

   ii. **Project team:** it will use the findings to improve the design and implementation of future interventions in the country or region, including current projects in similar areas or potential work areas.

   iii. **FAO Chile:** it will consider the conclusions and recommendations of the project in its strategic planning and design of future GEF and non-GEF proposals.

   iv. **FAO-GEF Coordination Unit:** it will use the results to inform the GEF regarding the fulfilment of the project objectives and indicators. In addition, it will use the evidence generated to improve the implementation of the FAO-GEF portfolio at the

regional and country levels. It will also share the good practices developed by this project with the FAO-GEF community.

v. **National and regional counterparts:** these will use the conclusions and lessons learned to improve and strengthen the scope of the results and give continuity to the processes generated by the project.

vi. **Beneficiaries and other national stakeholders:** they will use the evidence generated to analyse and support the viability of interventions that serve to improve the project results and ensure their sustainability.

1.3 Scope and objectives of the evaluation

6. The terminal evaluation covers the full period of project execution from the beginning of its implementation (July 2017) to the end of the reporting phase (September 2022). All of the results and components of the project were analysed and the conclusions, recommendations and management response to the mid-term review (MTR) were taken into consideration (FAO, 2020c).

7. The general objective of the terminal evaluation is to identify the effectiveness and progress towards the intended impact of the project, as well as the efficiency and sustainability of the changes generated. In addition, the terminal evaluation seeks to indicate the necessary future actions to expand or replicate the results of the project in the future and integrate and multiply its successful outputs and practices. The terminal evaluation also indicates the need to disseminate information between the authorities and institutions responsible for the management (prevention, control, eradication, monitoring) of IAS and the restoration of the affected ecosystems to ensure the continuity of the processes initiated by the project. This objective was established in agreement with the project team.

8. To meet this objective, the Evaluation Team focused on the analysis of the results achieved by the project. There was an emphasis on changes arising from the MTR. The evaluation was structured based on these areas of analysis, as prescribed by the GEF guide for terminal evaluations. The Evaluation Team followed the 2019 GEF terminal evaluation guide (GEF, 2019a), which establishes the analysis criteria.

9. In addition, this evaluation identified experiences or practices that have pedagogical potential to translate into significant and useful learning for the implementation of future interventions. These aim at strengthening or developing instruments for the management, prevention or control of IAS. Considering this general objective, the evaluation proposes the following specific objectives:

i. Evaluate the ability to overcome and adapt to national and regional political changes and to the regional governance framework, considering the role that the working group played in developing it.

ii. Evaluate the contribution of the project to the Ministry of the Environment being better positioned to address the problem of IAS in general, and beavers in particular.

iii. Evaluate the contribution of the project to the region being well positioned for the sustainability of the results in terms of biodiversity conservation.

iv. Evaluate the contribution of the project's communications strategy to highlight the IAS problem at the regional and national levels.

v. Evaluate the contribution of the exchange of information with the GCP/ARG/023/GFF project (e.g. procedures used, working relationship).

vi. Evaluate knowledge management, including how lessons learned and good practices are shared within FAO and with partners.

vii. Explore the commitment/compliance of strategic partners (Ministry of the Environment, SAG, CONAF, Ministry of Agriculture).

viii. Evaluate the capacity of FAO, as an institution, to operate in remote regions.

10. In order to achieve the expected scope and objectives, the terminal evaluation adopted 42 evaluation questions. These were structured based on the evaluation criteria. The questions were, to a large extent, established in the terms of reference (TOR) of this evaluation. Some, however, were adjusted by the Evaluation Team during the data collection stage.

Table 1. Evaluation questions by GEF criteria

Guiding questions/subquestions
Criteria 1. Strategic relevance
1. To what extent have the project results been (and continue to be) consistent with: the GEF-5 focal areas and operational strategies; national and regional priorities; FAO Chile and regional priorities; and the needs of the beneficiaries?
2. To what extent was the project design appropriate to achieve the expected results? Consider the components and geographic coverage.
3. Were there any changes (e.g. new national policies, plans, programmes) from project design to implementation that affected the relevance of the project objectives? How effective was the project's responsiveness to address these changes?
Criteria 2. Effectiveness
4. To what extent has the project achieved Outcome 1.1? Outcome 1.1: management and governance frameworks ensure effective management and the control of invasion on the **Magallanes Archipelago and the Brunswick Peninsula.**
5. To what extent has the project achieved Outcome 1.2? Outcome 1.2: decision-makers have updated, systematized and accessible information on beaver management in the Magallanes Region, including data on operational zoning, dispersal, monitoring, early detection, recovery-restoration and research.
6. To what extent has the project achieved Outcome 1.3? Outcome 1.3: regional institutions and **civil society recognize the importance of beaver eradication and restoration practices in the Magallanes Region**, including the recovery of riparian forests with endemic species.
7. To what extent has the project achieved Outcome 2.1? Outcome 2.1: the beaver invasion is under effective control in selected areas of native forest and peatbog ecosystems in the Magallanes Region and the recovery process of riparian forests with endemic species has begun.
8. To what extent has the project achieved Outcome 2.2? Outcome 2.2: the beaver invasion is under effective control on selected multifunctional private properties in the Magallanes Region.
9. To what extent has the project achieved Outcome 3.1? Outcome 3.1: the project has been implemented through a results-based management approach**, and the results and lessons learned can be used in future operations.**
10. What unintended/additional results has the project achieved? Were there any unexpected results (unintended, additional, positive or negative) during the development of the project? If so, what are they?
11. To what extent did the results obtained contribute to the achievement of the environmental and development objectives of the project?
12. What opportunities and challenges contributed to or limited the achievement of the results? What lessons can be learned from them?
13. What preliminary impacts can be identified as a result of the project's contribution? To what extent can these impacts be attributed to the project?

Guiding questions/subquestions
14. What are the barriers or risks that may prevent progress towards the project's long-term impact? What measures were taken (or are being taken) to minimize the incidence (prevention) or impact (response) of these risks?
Criteria 3. Efficiency
15. In what way have the following elements contributed to or hindered the achievement of the results and objectives of the project: direct implementation modalities; institutional structure; financial resources and procedures; technical resources; and programmatic and operational procedures?
16. To what extent has the management team been able to adapt to the following conditions in order to implement the project efficiently: government and policy changes; COVID-19; project team changes; and other changes?
Criteria 4. Sustainability
17. How sustainable (likelihood of continuity, scalability and replicability) are the results achieved by the project at the environmental, social, institutional and financial levels?
18. What aspects/actions are considered key to ensure the continuity of the processes initiated by the project?
19. What risk factors or difficulties could affect the sustainability of the results achieved by the project? What measures were taken (or are being taken) to minimize the incidence (prevention) or impact (response) of these risks on the sustainability of the project?
20. To what extent did the capacity development activities adopt an integrated approach (at the individual, organizational and enabling environment levels)?
21. What evidence supports the fact that the beneficiaries (at the community and regional levels) have acquired greater capacities on issues related to biodiversity, ecosystem restoration and IAS? Is there evidence that these capacities have permeated the institutional framework at the community and regional levels? What level of appropriation was demonstrated by the beneficiaries regarding the results of the project?
Criteria 5. Factors affecting performance
Subcriteria 5a. Quality of design and preparation
22. What project design factors affected the ability to start the project as planned?
Subcriteria 5b. Quality of implementation
23. To what extent did FAO comply with good project identification, concept note preparation, launch, monitoring and supervision?
24. How effective was the context analysis, risk identification and management (in design, launch, implementation and closure)?
25. What has been the quality of FAO's role as an implementing agency (monitoring, supervision, guidance)?
Subcriteria 5c. Quality of execution
26. To what extent has FAO, as the implementing agency, fulfilled the functions related to the management and administration of the project effectively?
Subcriteria 5d. Monitoring and evaluation (M&E)
27. To what extent has the M&E plan designed by the project been able to achieve its objectives?
28. To what extent has the M&E system performed in accordance with the M&E plan?
29. To what extent has the project collected information systematically, using appropriate methodologies?
30. To what extent has the project, including its partners, used the information from the M&E system adequately to make timely decisions and foster learning during project implementation?
Subcriteria 5e. Financial management and mobilization of expected co-financing
31. To what extent has the planned co-financing materialized and, if it has been less than expected, how has this affected project results?
Subcriteria 5f. Project partnerships and stakeholder engagement
32. How have other stakeholders, such as civil society, Indigenous Peoples or the private sector (farmers, water companies, tourism operators) been involved in the design and implementation of the project? How has the level of stakeholder involvement affected the project outcomes? How has the information related to the project been disseminated among stakeholders?
33. To what extent did the level and quality of participation and involvement of key partners and counterparts enable the proper implementation of the project?
Subcriteria 5g. Communications, knowledge management and knowledge products
34. How has the project communicated/shared results achieved, lessons learned and experiences developed?
35. To what extent have the communications products and associated activities supported (or are supporting) the sustainability and scalability of the project results?
Criteria 6. Environmental and social safeguards

Guiding questions/subquestions
36. To what extent have environmental and social safeguards been taken into account in project design and implementation?
37. What have been the effects of the measures taken during project **implementation in terms of environmental and social safeguards?**
Criteria 7. Gender
38. To what extent were gender considerations taken into account in project design, implementation and monitoring?
39. Was the project implemented in such a way that guaranteed gender equality in participation and benefits, contributing to the empowerment of women?
40. Was the M&E of the actions adequate and relevant to account for the results in gender issues?
Criteria 8. Lessons learned (no rating required)
41. What knowledge or evidence has been generated, based on the results and experiences of the project, that has value and potential for broader application, replication and use at local, national, regional and international levels?
42. What lessons can be learned from the design, management and implementation of the project that are useful to give continuity to the processes initiated by the project? This involves current interventions and the design and implementation of future interventions, as well as strengthening of the GEF project portfolio.

Source: Elaboration by the Evaluation Team.

1.4 Methodology

11. The evaluation was carried out based on the principles of integrity, honesty, confidentiality, systematic investigation and cultural sensitivity. The terminal evaluation was guided by the norms and standards of the United Nations Evaluation Group (UNEG, 2016). The evaluation was implemented in close collaboration with FAO and the project steering committee, as well as key project partners and counterparts – the Ministry of the Environment, the Agriculture and Livestock Service (SAG, by its Spanish acronym), the National Forest Corporation (CONAF, by its Spanish acronym), and the Wildlife Conservation Society (WCS). This evaluation incorporated the criteria and requirements established by the GEF for terminal evaluations in accordance with its TOR.

12. The evaluation process adopted a participatory, consultative and transparent approach in which the main stakeholders were seen as active participants and not just sources of information. To this end, questions were formulated to determine the stakeholders' perception of their roles in the project. Consultations with stakeholders followed ethical guidelines to ensure safe, non-discriminatory and respectful participation of all while raising awareness on the project's purpose. In addition, special attention was paid to ensure that women were adequately consulted. Participation was voluntary, and all information provided was treated confidentially. The stakeholder engagement approach was also meant to go beyond simple questioning. This involved identifying intended or unintended results that could be positive or negative.

13. The Evaluation Team was made up of independent consultants Alex Pires (team leader) and Gisella Arellano (subject matter expert), under the supervision of the Evaluation Manager (Daniela Rojas Chaves). The Evaluation Team maintained close communication with project stakeholders and promoted information sharing throughout the evaluation process. This aimed to increase collaboration and the appropriation of the evaluation findings. There was regular and smooth communication among stakeholders during the inception phase and throughout the evaluation process. The Evaluation Manager was kept informed of progress and challenges.

14. A series of stages were followed using primary and secondary data collection methods. The phases of the evaluation process are outlined in the following points:

    i. **inception phase:** initial review of documentation; stakeholder analysis; introductory meetings; a theory of change (TOC) update; and inception report development;

    ii. **data collection and analysis phase:** in-depth review of documentation; assessment mission; stakeholder interviews; and data triangulation analysis; and

    iii. **reporting phase:** writing the report and presenting the findings.

1.4.1 Phase A – Inception

15. The inception phase included an initial review of the relevant project background and documents, such as the PRODOC, the Programme Implementation Report (PIR), the project webpage, the MTR and guidelines/assessment documents from FAO and the GEF. A meeting was held to launch the process with the participation of the Evaluation Manager and the Project Coordinator, and regular messages were exchanged via email and WhatsApp. Key project documents were uploaded to a virtual cloud folder. At this stage, the main elements of the evaluation framework were defined, including the draft evaluation tools and the evaluation matrix. An updated draft version of the TOC was also produced at this stage. This initial phase established a basic understanding of the project implementation process, the results obtained and the management mechanisms.

16. The criteria for the selection of the sample group were based on the role played by the project stakeholders and their availability and willingness to contribute to the evaluation. Based on the information shared by the project team, the Evaluation Team and the Evaluation Manager designed a matrix to identify and prioritize the stakeholders to include in the sample for this evaluation. The criteria included: institution; position; level of intensity of their link to the project; level of information management; level of responsibility; period of participation in the project; components in which they participated; and location. The Evaluation Team aimed to include adequate representation of gender and social groups. Of the 96 stakeholders that had been identified, 60 were selected for the sample and 90 percent (54) were interviewed.

1.4.2 Phase B – Data collection and analysis

17. In this phase, the Evaluation Team conducted a comprehensive review and analysis of dozens of documents: the PIR; the PRODOC; the MTR; the management response; semi-annual and annual progress reports; operational plans; financial and co-financing reports; and reports on outputs and outcomes generated. Documentation related to project outputs was also reviewed. This included partnership agreements and reports, the GEF tracking tools, workplans, communications products and studies produced by the project.

18. Primary data was collected in two ways: during a field mission and through online interviews. The field mission was carried out from 11 to 20 July 2022 and included 40 individual interviews and five group interviews in the city of Punta Arenas in Magallanes and Chilean Antarctica. The definition of the field mission agenda was carried out in close collaboration with the project coordinator. The mission took place in the Patagonian winter. No visits were made to the pilot project areas since the interventions were buried under snow.

19. As a result of the sample established in the inception phase, individual or group interviews were conducted with 54 people (23 women and 31 men). These were done in person (in the city of Punta Arenas) and remotely via an online conference (see Appendix 1). Key project stakeholders were interviewed. These included the following: the project team; the FAO project team; authorities and the technical counterpart of the GEF project in Argentina; and project partners, such as public officials from the Magallanes Region and the Ministry of the Environment, SAG and CONAF at the central level plus officials from other state institutions like the army, the Chilean Navy and Water Operations Bureau, consultants involved in the generation of products, university researchers and project beneficiaries (mainly cattle ranchers). In addition, a focus group was held with students from an educational institution in the Magallanes Region.

20. All responses from the interviewees were treated confidentially and anonymity was maintained. The interviews were conducted based on strong ethical standards and, to a large extent, sought to include diverse opinions. The project team provided support for the organization and logistics for the interviews.

21. The Evaluation Team designed semi-structured and specific interview protocols and questionnaires for each person interviewed based on the evaluation matrix. During the interviews, an adaptive approach was applied. The interviewer sought to build a relationship of trust and make the interviewee as comfortable as possible in providing information and evidence relevant to the assessment. There was a limit to the number of questions asked in order to keep the interviews short. Afterwards, a thank you email was sent to all interviewees, confirming that they would receive a copy of the terminal evaluation report once published. In a complementary approach to the interviews, emailed questionnaires were also used to collect additional information.

22. The most relevant elements of each interview or questionnaire were transferred to the expanded evaluation matrix in order to facilitate data analysis and information triangulation. Data analysis involved the transcription, translation, coding and organization of the findings with an analysis-by-evaluation approach. Data was triangulated to provide evidence for evaluation. Both quantitative and qualitative evaluation methods were adopted to determine project achievements compared to the expected results and impacts.

23. Data analysis was carried out systematically to ensure that all findings, conclusions and recommendations were supported by evidence. Appropriate tools, such as a data analysis matrix, were used to ensure proper analysis. This included records for each evaluation question and criteria, information, and data collected from different sources and with different methodologies. At this stage, the TOC of the project was used based on the evidence collected.

1.4.3 Phase C – Drafting the report

24. The draft terminal evaluation report was written following the guidance and requirements of FAO and the GEF. As described in the TOR for reviewing this terminal evaluation, the report writing phase included a series of revisions from the initial draft of the terminal evaluation report to its final version. The Evaluation Team submitted a zero draft of the report to the Evaluation Manager for internal review, and the report was then revised by the evaluators based on feedback and suggestions received.

25. Once the draft met the required quality standards, the Evaluation Manager shared the draft of the terminal evaluation report approved by the FAO Regional Office for Latin America and the Caribbean and the FAO Office of Evaluation at headquarters, which were invited to provide comments and suggestions.

26. Then, the Evaluation Team made a virtual presentation of the findings, conclusions, recommendations and lessons learned to the project team, the FAO Chile team, the project partners, the FAO-GEF Coordination Unit, the Funding Liaison Officer, the Lead Technical Officer and the GEF focal point from the Chilean Government. The exchange with the project team supported the participatory approach to the assessment. This ensured that all relevant sources of information had been consulted and provided an opportunity to verify the findings. It was also a good opportunity for the project team to share lessons learned, contribute recommendations and take ownership of the results.

27. The final report of the terminal evaluation and its annex in response to comments was prepared and sent by the Evaluation Team to the Evaluation Manager for final approval. An evaluation summary (a two-page overview of the evaluation findings and recommendations) was produced for wider dissemination. This was based on a template provided by the FAO Regional Office for Latin America and the Caribbean.

1.5 Limitations

28. The period in which the assessment mission was carried out (July 2022) – winter in Patagonia – did not allow site visits where the pilot projects were being implemented, nor was it possible conduct face-to-face interviews with some local beneficiaries (cattle ranchers) who were absent. These limitations were overcome by conducting virtual interviews with the beneficiaries and by analysing videos, photos and satellite images (Google Maps) of the pilot project areas.

29. The limited time between the approval of the inception report and the field mission (less than five days) prevented a deeper review of the project documents. This was addressed by prioritizing the most relevant documents, distributing the tasks among the evaluators and increasing the working hours during this period.

30. On the second day of the assessment mission, the lead evaluator contracted COVID-19 and had to quarantine in his hotel room. The FAO protocol for COVID-19 was activated and the Organization provided excellent assistance to the evaluator. However, this impacted the interview schedule, generating a greater workload for the other member of the Evaluation Team (the subject matter expert). To manage the situation, the assessment mission was extended by an additional five days, the schedule was adjusted, some interviews were conducted virtually and additional days were included in the subject matter expert evaluator's contract.

31. After the introduction in Section 1, Section 2 presents the background and context of the project and Section 3 presents the main findings in each evaluation criterion. The conclusions and recommendations are included in Section 4 and the lessons learned in Section 5. The report also includes bibliographical references, five appendices and one annex.

2. Background and context of the project

Box 1. Basic project information

- GEF project ID number: 5506
- Beneficiary country: Chile
- Implementing body: FAO Chile
- Executing agency: Ministry of the Environment
- Start date: 31 July 2016
- Expected project completion date: 31 November 2022
- Mid-term evaluation date: May 2020
- Total budget: USD 7 790 585
- GEF budget allocation: USD 2 153 882

Source: Elaboration by the Evaluation Team.

32. The IAS is one of the main drivers of ecosystem change in Chile. In 1946, the North American beaver (*Castor canadensis*, hereinafter "beaver") was intentionally introduced to the Argentine part of the Isla Grande de Tierra del Fuego. The beaver, without any natural predators, became an IAS with a wide dispersion in practically all of the main islands – even expanding into the Chilean territory of the archipelago. In the early 1990s, the beaver crossed the Strait of Magellan until it reached the Brunswick Peninsula. Recently, it has also been reported in other continental areas in southern Chile, specifically in Magallanes and Chilean Antarctica.

33. Beavers in southern Chile have caused extensive damage to local ecosystems by cutting down and destroying trees, ringbarking, and disrupting watercourses and the hydrological and chemical cycle in the affected basins since rivers are their main means of dispersal and protection. In 2006, a population of between 70 000 and 110 000 beavers was estimated in the binational Fuegian archipelago. The beaver colonies build dams in the riverbeds, altering the water flows in the low-sloping courses. This affects the riparian forests of lenga beech (*Nothofagus pumilio*), which is the most affected tree species in Tierra del Fuego.

34. It is estimated that more than 150 000 km of watercourses and more than 16 million ha of forests are at risk due to the devastating effects of beavers in Magallanes and Chilean Antarctica. Beaver activity has generated a decrease in the biomass and volume of these protected forests, which are designated as such because they are associated with watercourses. There is also a significant impact on peatbog ecosystems, which are areas with very high environmental value due to the ecosystem services they provide: support for biodiversity; regulation of watersheds; and the mitigation of climate change impacts due to their carbon retention capacity. The effects generated by beavers have also led to the loss of farmland, disturbing not only ecosystems but also the livelihoods of local communities.

35. Since 2003, the Chilean Government has implemented a series of initiatives to control and eradicate beavers. This involves the Binational Agreement for the Restoration of Southern Ecosystems Affected by Beavers. It was signed in 2008 and established a framework for the cooperation of Chile and Argentina. The two countries jointly developed a binational

strategic proposal aimed at eradication, resulting in a strategic plan for beaver eradication in southern Patagonia. However, this plan requires support to establish mechanisms and roles that, without undermining the powers of national institutions, allow them to coordinate at the internal and binational levels. These mechanisms and roles must contribute in a coherent way to the creation of capacities at the subnational and local levels to face environmental problems of this scale.

36. There were changes in the national context from the design phase to project closure. This gave even more urgency to project implementation. In fact, this involved the continuous growth of the beaver population in the region and the greater knowledge of decision-makers and of the population of Magallanes about the impact that the beaver is generating on the ecosystems and the economy.

37. The project "Strengthening and development of instruments for the management, prevention and control of beaver (*Castor canadensis*), an invasive alien species in the Chilean Patagonia" (GCP/CHI/034/GFF, GEF ID 5506), known in Chile as the GEF Castor project, was designed to establish such mechanisms, roles and capacities to strengthen beaver management in the region. The project was approved on 1 January 2016 and its start date was 3 July 2016, corresponding with the hiring date of the national coordinator. Its original implementation period was 36 months, with an estimated completion date of 2 July 2019. This period was extended until 31 November 2022 through three no-cost extensions. The impacts caused by the social uprising in Chile in 2019 and the health emergency due to the COVID-19 pandemic from 2020 to 2021 were the main reasons for granting the extensions. The MTR was approved in May 2020.

38. The overall environmental objective of the project was to improve subnational institutional frameworks for the control, prevention and effective management of IAS in ecosystems of high biodiversity value in Magallanes and Chilean Antarctica. Additionally, its development objective was to incorporate biodiversity conservation in the management of productive landscapes through the development of capacities that facilitate the adequate management of the risk of biological invasions.

39. FAO is the implementing agency, represented by FAO Chile. The Chilean Ministry of the Environment, through its Natural Resources and Biodiversity Division, is the executing agency for the project. At the request of the Ministry of the Environment, FAO Chile oversaw administrative, operational and budgetary execution through the direct implementation modality. Other partners with direct responsibility in the execution of the project are CONAF, SAG and the WCS.

40. Local stakeholders that are direct and indirect beneficiaries of the project include the regional government of Magallanes and Chilean Antarctica and associations and private agents operating in the territory (with an emphasis on the livestock and tourism sectors).

41. The initiative was funded during the fifth GEF replenishment cycle (GEF-5). The total budget was USD 7 790 585 with an allocation of USD 2 153 882 from the GEF and a total co-financing of USD 5 636 703 (see Appendix 4).

42. The project falls under the GEF focal area of biodiversity and is expected to contribute to Outcome 2.3: improved management frameworks to prevent, control and manage IAS. This

is connected to Objective 2 of the Biodiversity Strategy: mainstream biodiversity conservation and sustainable use into production landscapes/seascapes and sectors.

2.1 Theory of change

43. The project design did not include a theory of change (TOC) since it was not a GEF requirement at the time of project approval. The MTR produced a TOC that largely presented a linear view of the project's results framework. However, this TOC did not reflect the changes proposed by the project with an appropriate causal chain towards the expected impacts. The TOC presented here is based on the project intervention logic identified during this terminal evaluation.

44. Figure 2 presents the project TOC diagram. It indicates the sequence from outputs to outcomes, then through intermediate states to the desired impact. The TOC explains the process of change by defining the main causal pathways throughout the intervention. The changes are mapped as a set of interrelated paths, showing the expected results in a logical relationship with the other results (read the diagram diagonally from the upper left corner to the lower right corner).

45. It was expected that the generation of the 18 outputs would lead to the achievement of six outcomes. In turn, this would place the process of change in an intermediate state (change required between results and impact of the project), representing the environmental objective of the project: improved subnational institutional frameworks for the control, prevention and effective management of IAS in ecosystems of high value for biodiversity in Magallanes and Chilean Antarctica. This would then lead to the desired impact (lasting and positive expected changes arising, directly or indirectly, from the project). In fact, this is the project's development objective: the conservation of biodiversity is incorporated into the management of productive landscapes with an adequate management of the risk of biological invasions in Magallanes and Chilean Antarctica.

46. The outcomes and outputs of this project have a complex relationship of interconnectivity, represented in the TOC diagram by the 28 connectors (arrows). Three components group the outcomes and outputs: Component 1, framework for management and governance of beaver activity in the region, including information sharing, monitoring and early warning, participation and communication; Component 2, demonstration control, management and restoration activities in pilot areas; and Component 3, results-based management, monitoring and evaluation (M&E), and dissemination.

47. Component 1 has three outcomes. Outcome 1.1, management and governance frameworks ensure effective management and the control of invasion on the Magallanes Archipelago and the Brunswick Peninsula, would be achieved through the delivery and use of four outputs: Output 1.1.1, strategic and financial plan for the management of the beaver as an invasive species; Output 1.1.2, coordination and governance plan for the management of the beaver as an invasive species; Output 1.1.3, evaluation of the present and potential economic impact of the beaver in Patagonia; and Output 1.1.4, validated regulatory framework for beaver management at the municipal and regional levels. It should be noted that the regulatory framework (Output 1.1.4) and the socioeconomic impact studies (Output 1.1.3) would contribute directly to Output 1.1.1 (strategic and financial plan). In turn, this would serve as input for the coordination and governance plan

(Output 1.1.2). In the long term, the implementation of this plan would lead to changes in the regulatory framework and socioeconomic impacts.

48. Four other outputs – Output 1.2.1, the Information, Monitoring and Early Warning Coordinated System (SIAT, by its Spanish acronym); Output 1.2.2., dispersion model and adaptive zoning by management units; Output 1.2.3, indicators of recovery of sub-Antarctic ecosystems applied in the control and eradication in the pilot sites; and Output 1.2.4, procedures for the exchange of information at the regional, national and binational levels between Chile and Argentina – would lead to Outcome 1.2, decision-makers have updated, systematized and accessible information on beaver management in the Magallanes Region, including data on operational zoning, dispersal, monitoring, early detection, recovery-restoration and research. The SIAT (Output 1.2.1) is the main contributor to this result. The other three outputs (1.2.2, 1.2.3, 1.2.4) contribute to the SIAT and, to some extent, can be improved with the use of the SIAT.

49. Outcome 1.3, regional institutions and civil society recognize the importance of beaver eradication and restoration practices in the Magallanes Region, including the recovery of riparian forests with endemic species, depends on two outputs: Output 1.3.1, communications and awareness programmes aimed at different target audiences; and Output 1.3.2, a capacity building programme for key stakeholders in beaver management and eradication. The TOC considers that the institutions and informed civil society (Outcome 1.3) can contribute by providing feedback to the SIAT. An interconnection is also identified between the outputs related to the management and governance framework (Outcome 1.1) and the design and implementation of the SIAT.

50. Three demonstration experiences in pilot areas are related to Outcome 2.1, the beaver invasion is under effective control in selected areas of native forest and peatbog ecosystems in the Magallanes Region and the recovery process of riparian forests with endemic species has begun. This outcome would be achieved with the delivery of four outputs: Output 2.1.1, method for beaver eradication and basic restoration designed and implemented in the Karukinka Natural Park; Output 2.1.2, beaver eradication and basic restoration method designed and implemented in the Laguna Parrillar National Reserve and downstream in privately owned lands; Output 2.1.3, method for implementation of the early warning system in the province of Ultima Esperanza, including the Torres del Paine National Park; and Output 2.1.4, systematization of good practices for beaver eradication, invasion monitoring and early warning through the preparation of a beaver management manual.

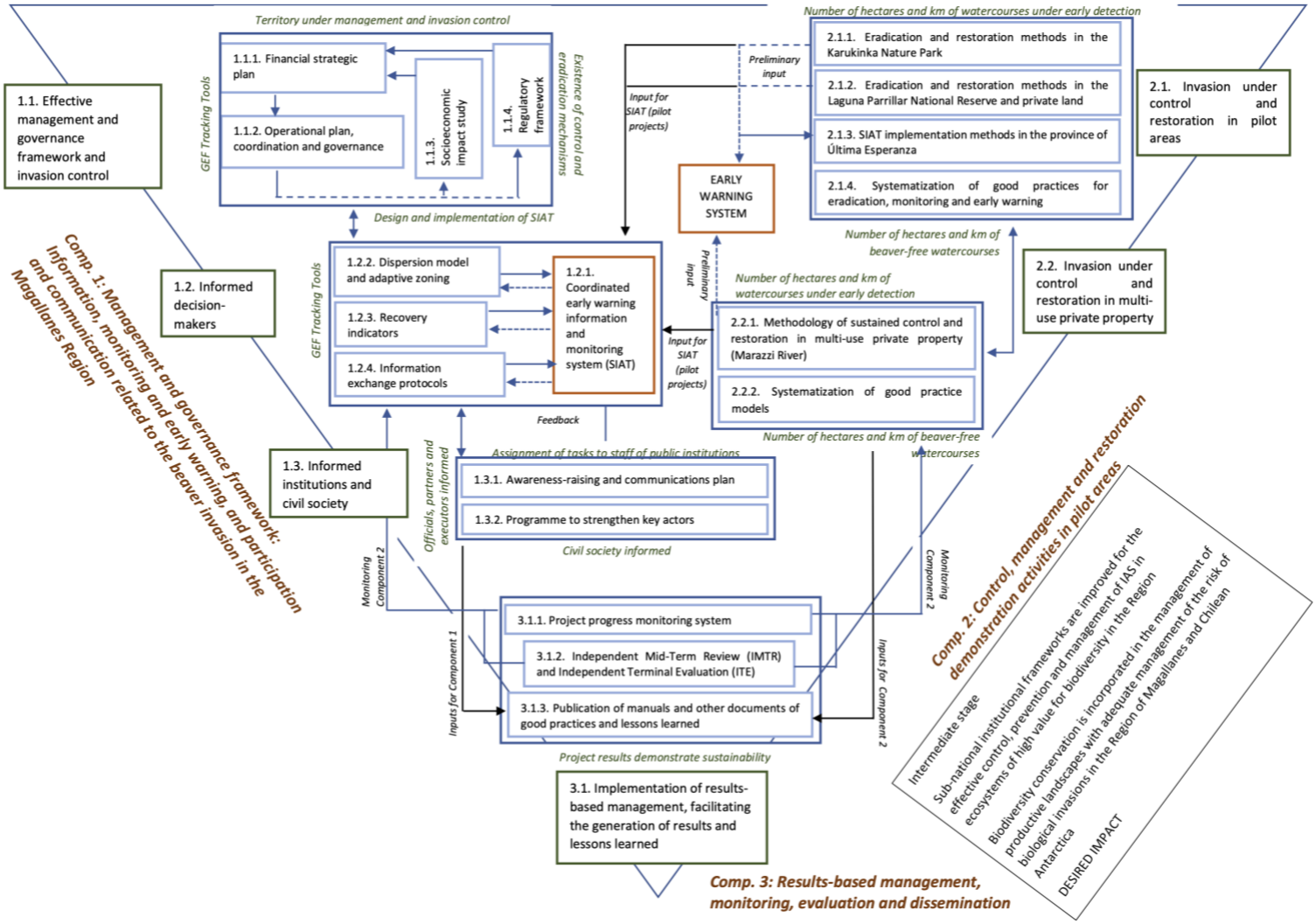
51. A fourth demonstration experience in a pilot area is related to Outcome 2.2, the beaver invasion is under effective control on selected multifunctional private properties in the Magallanes Region. The pilot on private property corresponds to Output 2.2.1, sustained control and restoration methodologies in multiple-use private properties. Output 2.2.2, systematization of a model of "good practices" for multifunctional private properties, is similar to Output 2.1.4. It was considered that the pilots would also contribute to the SIAT and the early warning system.

52. The last outcome corresponds to results-based management: Outcome 3.1, the project has been implemented through a results-based management approach, and the results and lessons learned can be used in future operations. Three outputs would contribute to this outcome: Output 3.1.1, project progress M&E system; Output 3.1.2, MTR; and Output 3.1.3,

publication of manuals and other documents of good practices and lessons learned. Outputs 3.1.1 and 3.1.2 would contribute to monitoring Components 1 and 2, which would then provide relevant information for publications and lessons learned (Output 3.1.3).

53. The main assumption of this TOC, during the design and part of the implementation of the project, was the creation and start of operations of the Biodiversity and Protected Areas Service (SBAP, by its Spanish acronym). The bill that would create this service, which was presented to Chile's Congress in 2011, was approved in 2022. The creation of the SBAP was vital for project implementation. Indeed, this service is designed to be the leading state body in the country's biodiversity conservation matters and is endowed with human and financial resources to fulfil its mandate. Crucially, this means that it would have the necessary attributions and responsibilities to carry out the management of IAS at the country level, assuming the coordination of different stakeholders involved in sectoral management. Other assumptions considered in the TOC were: i) public and private decision-makers use the information and models generated by this project for beaver control; ii) the communications campaign raises awareness among key stakeholders; iii) the project receives feedback and lessons learned from the M&E system; and iv) the will and financial and human resources exist to ensure the continuity of beaver control activities upon project closure.

Figure 2. Diagram of the project's theory of change



Source: Elaboration by the Evaluation Team.

3. Main findings

3.1 Relevance

Finding 1. The project results are largely consistent with the GEF focal area and operational strategies, national priorities, the FAO Country Programming Framework and beneficiary needs.

54. The project was in line with the GEF priorities and operational strategies for the biodiversity focal area, specifically Outcome 2.3, improved management frameworks to prevent, control and manage IAS. The terminal evaluation found that the GEF Castor Chile project was in line with Sustainable Development Goal 15 Life on Land, especially Target 15.8: By 2020, introduce measures to prevent the introduction and significantly reduce the impact of IAS on land and water ecosystems and control or eradicate the priority species. However, the project also contributed to Target 15.1: Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements; Target 15.2: Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally; Target 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity…; Target 15.a: Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems; and Target 15.b: Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation.

55. The project is consistent with Article 8(h) of the Convention on Biological Diversity, of which Chile is a signatory country. Article 8(h) establishes that each member of the Convention on Biological Diversity, to the extent possible and as appropriate, will "prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species" (CBD, 2007). The project was also directly aligned with Aichi Biodiversity Target 9 (approved by the Convention on Biological Diversity in 2010) "by 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment" (CBD, 2020).

56. This terminal evaluation confirmed that the project was relevant to Strategic Objective 2 of the FAO Strategic Framework 2010–2019: increase the provision of goods and services from agriculture, livestock, forestry and fisheries in a sustainable manner – especially Output 2.1.2, integrated and multisectoral approaches for ecosystem valuation, management and restoration are identified, evaluated, disseminated and their adoption by interested parties is facilitated. The project was also aligned with the new FAO Strategic Framework 2022–2031 through the Programme Priority Area of a Better Environment (BE3) (Ministry of the Environment): biodiversity and ecosystem services for food and agriculture. On a regional scale, the project was in line with FAO's regional priority of sustainable and resilient agriculture in Latin America and the Caribbean.

57. The project was highly relevant for the Chilean Government, contributing to the National Biodiversity Strategy (2017–2030), especially Thematic Area 3 on the management of IAS.

58. The project demonstrated its relevance to the 2015–2018 FAO Country Programming Framework for Chile under Pillar 2, governance of natural resources and forestry, agriculture and fisheries systems under climate change scenarios. The strengthening and development of instruments for the management, prevention and control of beaver in natural and productive areas was also highly relevant for Outcome 3 of the FAO Country Programming Framework: protection of biodiversity and conservation of natural and genetic resources for food security. In addition, the GEF Castor Chile project was in line with the 2019–2022 FAO Country Programming Framework in terms of Output 3.2: Chile has institutional frameworks, policies and programmes for the sustainable use of natural resources and the protection of biodiversity within the framework of the international agreements signed by the country.

59. The project results were also, to a large extent, consistent with the needs of the beneficiaries and partners of the project. It involved their needs for capacity development and the establishment of inter-institutional frameworks for the management and control of IAS in the territory. The project improved the subnational institutional frameworks for the control, prevention and effective management of IAS, expanding the capacities of the Ministry of the Environment (see Finding 18), SAG, CONAF, the WCS, the regional government, cattle ranchers and other regional stakeholders involved in biodiversity conservation in the region's high-value ecosystems.

Finding 2. The project design, including its components and geographic coverage, was appropriate to deliver the expected results because it integrated the development of a governance framework with demonstration activities and results-based management.

60. The project focused on a specific geographic area (Magallanes and Chilean Antarctica) and was designed based on three components (1. management and governance framework, 2. demonstration activities, 3. results-based management) that proved adequate for the delivery of the results. It should be noted that the project was carried out in a region on the border with Argentina and that the beaver impacts both countries in Patagonia. In this regard, the close relationship of the GEF Castor Chile project with the GEF project in Argentina, Strengthening of governance for the protection of biodiversity through the formulation and implementation of the National Strategy on Invasive Alien Species – also implemented by FAO – was very important. The two projects were linked, among other ways, through frequent communication and binational meetings between the partners. This facilitated the exchange of experiences between the two projects, the alignment of the instruments used (for example, information and early warning systems, communication strategies) and cross-border inter-institutional coordination.

Finding 3. The project's relevance for the region and the country has increased from its design to its conclusion. This involves the need to provide adequate responses to the challenge of controlling beavers and conserving Patagonian forests and ecosystems.

61. This was largely due to the project's ability to adequately respond to the challenge of controlling beavers in the region and conserving Patagonian forests and ecosystems. In fact, this contributed to broadening the relevance of the project's objectives. From the project's design to its implementation, three main factors contributed to increasing the importance of the project and creating a sense of urgency among the decision-makers and the population of Magallanes: i) the continuous growth of the beaver population in the region; ii) increased awareness of decision-makers and the population of Magallanes about the impact that the beaver is having on the ecosystems and the economy of the

region; and iii) the delay in the approval of the creation of the SBAP (which complicated the governance of the control of alien species at the national level).

62. Relevance: Highly satisfactory.

3.2 Effectiveness

Finding 4. If properly implemented, the management and governance frameworks developed by the project ensure the effective management and control of the beaver invasion on the Magallanes Archipelago and the Brunswick Peninsula.

63. The project created the management plan for the Recovery of Environments Degraded by the Beaver (*Castor canadensis*) and other Invasive Alien Species in the Magallanes Region, (management plan hereinafter), based on three general components: a governance structure, which addresses inter-institutional coordination, binational cooperation, the integration of inhabitants of the Magallanes territory, and the temporal and spatial coordination of management actions on the ground; management strategies and territorial action in prioritized areas; and a proposal for strategic communications and environmental education. As a result, the project established a management framework with specific guidelines for controlling IAS in the region. This plan was developed together with the project's executing partners, which operated as evaluators and validators of the instrument.

64. The governance structure of the management plan will be implemented from the binational to the local level, facilitating the political and technical coordination of different public and private stakeholders. It will be implemented by a national regional council (regional government, Ministry of the Environment, SAG, CONAF, Ministry of National Assets, Chilean Armed Forces), which will be advised by a management committee (regional government, regional ministerial secretariat, Chilean Armed Forces, association of municipalities, association of producers) in charge of annual resources for the plan's execution, as well as a technical scientific adviser, territorial committees (municipalities, local offices, individual producers, tourism chambers, etc.) and a focal point of the binational agreement. The management plan was developed with a 15-year implementation horizon of eight phases. A project was presented to the Magallanes National Fund for Regional Development (FNDR, by its Spanish acronym) to partially finance the first two years.

65. Among the plan's main strengths are its scheduled work stages, which follow a prioritized order according to the needs and urgency demanded by beaver impacts in the territory. The continental zone is the first phase of work, with beaver eradication and early warning activities to stop its advance towards the north of the region. A second phase focuses on Dawson Island, which operates as a "bridge" for the spread of beaver to the mainland. After these phases, a prioritized beaver removal process and the recovery of microwatersheds is proposed through the use of the SIAT as an input to define work tactics. Field crews trained in the SIAT are considered for the development of field activities throughout the implementation of the management plan.

66. This work resulted in a substantial strengthening of governance since, prior to the project, the region did not have an instrument of this scope. It is also positioned as a benchmark at the national level since it is the first integrated management plan for IAS in Chile.

67. Among the most notable achievements in relation to this result is the transfer of the management plan to regional public policy, pending approval by the Regional Council of Magallanes and Chilean Antarctica (currently in the approval process). The plan will be executed in its first stage through a funding application presented by the Programme for the Protection and Conservation of Environmental Heritage and Ecosystem Services Affected by the Action of IAS to the Magallanes FNDR, which is expected to grant an amount of CLP 389 520 000 for an implementation period of two years. This financing will enable the initial work of developing a governance structure through the creation of the council and management committee. This will improve institutional coordination and priority environmental recovery actions, including the monitoring and detection of IAS through institutionalization of the SIAT, the training and education of qualified staff (hiring of forest restoration crews) and the dissemination and communication of the impacts of the beaver. These advances generated in the last stage of the project were key to strengthening the management and governance framework that ensures the sustainability of its impacts.

68. In relation to evidence on the level of achievement of this result, 100 percent compliance is established for Indicator 1 of the GEF tracking tools for GEF-5 projects on IAS (Section VI, Questions 1, 2, 3). This evaluates the improvement of management frameworks for the prevention, control and management of IAS. According to this indicator, the project complied with the development of three elements: 1) national coordination mechanisms as the project created a coordination and governance plan for beaver management, corresponding to one of the pillars of the management plan; 2) development and implementation of the project Strengthening of governance for the protection of biodiversity through the formulation and implementation of the National Strategy on Invasive Alien Species since it supported the implementation of the strategic plan for the eradication of beavers in southern Patagonia through the development of bilateral meetings, the coordination of future work and the exchange of experiences and lessons learned from the implementation of both the GEF projects in Chile and Argentina; and 3) political framework to support the management of IAS since the project created a management plan that is in the process of approval as a regional public policy, together with the allocation of an FNDR grant to partially finance its implementation.

69. Indicator 2 also reached a level of achievement of 100 percent. This corresponds to the presence of control and eradication mechanisms designed, validated and implemented. In terms of this indicator, the project implemented pilot experiments in project areas where field methodologies for beaver management were tested. The experiences obtained, with successful results, were published in a manual of good practices in order to provide management guidelines for future projects. Indicator 3 also reached a degree of achievement of 100 percent, corresponding to the area (hectares) vulnerable to beaver invasion that is under control and effective management, where the project estimates 113 786 ha directly covered by the activities in the pilot areas. In addition, 1 000 000 ha were indirectly covered by the beaver detection training programme and by monitoring carried out by tour guides in the region. Further, 13 229 700 ha were indirectly covered by the SIAT and the dispersion model. This exceeded the goal established for this indicator which, upon project start, showed 0 ha with effective management for invasion (see Appendix 5).

Finding 5. The project raised awareness of the SIAT among decision-makers. This operational tool provides updated, systematized and accessible information to successfully manage beavers in the Magallanes Region.

70. The execution of the project allowed for the systematization, updating and dissemination of information for beaver management in the Magallanes Region. The project designed, validated and implemented a SIAT tool using cutting-edge technology for information systematization and decision-making. It is the first of its kind in Latin America. This dynamic tool incorporates a dispersion and adaptive zoning model, which is very useful for the monitoring and early warning of beaver invasion in the territory.

71. The SIAT is integrated into the Biodiversity Information and Monitoring System (SIMBIO, by its Spanish acronym). This platform contains information related to biodiversity on the servers of the Ministry of the Environment. The objective is that the information generated by the SIAT can be used in operational management by the Ministry of the Environment and by other stakeholders involved in beaver control and eradication. The Ministry of the Environment, in turn, operates as the administrator of the early warning system and is in charge of ensuring its sustainability and maintenance.

72. The project developed a training programme on the use of the SIAT for public service officials, including the Ministry of the Environment, CONAF, SAG, the Chilean Armed Forces, livestock managers, tour guides and members of civil society. It is currently open for registration for forest restorers with a dispersion model and satellite monitoring. Only the launch of the public science module is still pending. The public science module allows the local population and visitors to the region to be involved in the task of monitoring and recording beaver sightings (or the impacts caused).

73. In terms of evidence on the level of achievement of this result, 100 percent compliance is established for Indicator 4 of the GEF tracking tools for GEF-5 projects on IAS (Section VI, Questions 4, 5, 6). Regarding this indicator, the project met three main requirements: 4) prevention; 5) early detection by creating the SIAT and the dispersion and adaptive zoning model; and 6) good practices in evaluation and management. To achieve this objective, the project developed pilot areas in which practical applications of beaver control methods were carried out. Practices that were effective and likely to be replicated in other areas of the region were selected. Indicator 5 also reached a level of achievement of 100 percent, corresponding to the design and implementation of the SIAT. This is open for registration for restorers, with a dispersion model and satellite monitoring in operation. The SIAT was disseminated through a training programme. It is integrated into the SIMBIO platform of the Ministry of the Environment. Only the launch of the public science module is still pending. However, various stakeholders interviewed recognized the importance of developing complementary training activities so that stakeholders, such as fisherfolk associations, maritime authorities and the new park rangers can use the SIAT as a work tool.

Finding 6. The project strengthened recognition by regional institutions and civil society of the importance of carrying out beaver eradication practices and the restoration and recovery of ecosystems in the Magallanes Region. This was done through a permanent communications strategy for public institutions and civil society, as well as training sessions and workshops for public officials.

Figure 3. FAO, CONAF and the Ministry of the Environment staff in recovery zones (Karukinka Natural Park, Chile)

74. The project has prioritized communication as a key aspect for implementation since its inception. It has worked hard to promote its relevance among institutions and civil society organizations in the region.

75. The project's communications strategy was key to this achievement. Indeed, it is highly valued by the main stakeholders consulted. The evaluation confirmed this perception. This aspect was crucial for the implementation of the different activities planned and the subsequent achievement of the objectives.

76. The communications strategy played a key role in visibility. It sensitized the population and raised awareness through education and information sharing with the media. This communicated the core of the project in an integrated and diligent manner. The focus of the communications campaign on ecosystem recovery and not on IAS per se helped to promote a change in the regional discourse on this problem.

77. The project managed to position the issue on the agenda at the regional level and, to a certain extent, at the national level. This increased awareness and promoted a more critical vision that helped to expand the scale of the project's impact. Indeed, this is reflected in the fact that civil society in general recognizes and appreciates the importance of the project being implemented and supports the need to undertake actions that seek to eradicate beavers with a sense of urgency. Inaction will only aggravate the current situation.

78. In terms of the level of achievement of this result, 100 percent compliance with Indicator 6 was established. Public officials recognize the importance of eradicating invasive species for biodiversity and productive areas of the region. This vision was verified in interviews conducted with public officials on services at the regional and central levels. The project trained and informed all staff of the WCS, SAG, CONAF and the Ministry of the Environment about the urgency of taking actions to eradicate the beaver in the Magallanes Region. This transmitted information about recognizing species, impacts generated on the Patagonian

ecosystems, control and eradication methodologies, channel release methodologies and effects of removal on ecosystem restoration, among other subjects.

79. The level of achievement of Indicator 7 was also 100 percent. Public officials assigned to carry out beaver control, management and eradication measures now implement good practices. In fact, all staff of the institutions of the Ministry of the Environment, SAG and CONAF received training in good practices related to beaver management and management activities, as well as monitoring through the SIAT. As for Indicator 8, the level of achievement was 274 percent in terms of the number of members of civil society who are aware of the impact of beavers as IAS on agricultural systems and vulnerable ecosystems. As a result of the communications strategy and the dissemination of information, the awareness and sensitization of the population has increased in terms of the problem and its environmental impacts in the region. An estimated 8 215 people have improved their knowledge on this subject (the goal was 3 000 people).

Finding 7. The project demonstrated the effectiveness of the control and monitoring methods used in the pilot areas of native forest and peatbog ecosystems in the Magallanes Region. The evaluation found that these actions must continue so that the beaver invasion is under effective control and the ecosystems continue their recovery processes.

Figure 4. Drone image taken in La Paciencia Valley, Karukinka Natural Park, Chile

Figure 5. Beaver damage to a tree trunk (Karukinka Natural Park, Chile)

Figure 6. Beaver trap (Karukinka Natural Park, Chile)

80. The beaver control and monitoring demonstration activities carried out in the pilot areas of the Karukinka Natural Park, the Laguna Parrillar National Reserve and private lands were successful. This is reflected in the level of achievement of the indicators associated with the goal of this result and relates to the number of hectares free of beaver and under basic restoration processes.

81. These experiences made it possible to verify that the methods tested and selected by the project, which were systematized in a manual of good work practices for eradication, monitoring and early warning, were effective in the control and management of beavers. The manual contains detection, control and eradication, monitoring, and restoration actions. An early warning system was also implemented in the province of Ultima Esperanza and in the Torres del Paine National Park, where a set of early detection and public-private cooperation strategies were evaluated. Although these places do not currently present signs of a beaver invasion (based on reports that account for the absence of invasion through a study carried out by the project team in 2019 in the Hollemberg River), they are identified as territories to promote and strengthen passive surveillance programmes. Here, the strategy involved training the local population in the recognition and detection of the species in order to report suspected beaver sightings. Prior to the implementation of the project in the province of Ultima Esperanza, the local population had little knowledge about the species (from background information compiled by SAG, it was determined that 96.3 percent of the population consulted did not recognize signs of beaver activity while, based on surveys conducted by the WCS from 2018 to 2019, 44 percent of those interviewed could not recognize a beaver). In this strategy for the implementation of early warning mechanisms, public-private cooperation is facilitated through the training of workers in the artisanal fishing, tourism, and forestry and agriculture sectors with the incorporation of key stakeholders in land surveillance.

82. In order to ensure the achievement of this result in terms of effective control of the pilot areas, it is important to consider the need to carry out permanent control activities. This includes constant monitoring and trapping efforts. In this regard, the project established

the guidelines to achieve this result, which requires continuing the work started by the project in the long term.

83. Regarding the declaration that the pilot areas are restoring riparian forests, and considering the scope of the damage generated by the beaver, an outlook beyond the project's five-year period is required to evaluate ecosystem recovery processes in the Patagonia region. Therefore, this approach is recognized as highly ambitious and with inherent difficulties in terms of achieving the objectives related to this result. However, it is verified that the project made efforts to address this situation. This is reflected in the reporting of results from the pilot areas and the monitoring of reinvasion. The effective removal of the threat and the restoration of the riverbeds were observed in the field visits to evaluate the reinvasion of beaver in the pilot areas. These are factors that allow the ecosystems to begin the gradual return to their natural state, free from the threat posed by the beaver.

84. In terms of the level of achievement of this result, compliance with Indicator 9 is established with 99 624 ha and 1 175 km of watercourses free of beaver and under basic restoration. This is detailed in the following pilot areas: La Paciencia Valley, with 18 481 ha and 270 km of watercourses free of beaver; Laguna Parrillar National Reserve, with 18 000 ha and 193 km of watercourses free of beaver; and the San Juan River Basin (co-financed by SAG), with 63 143 ha and 712 km of watercourses free of beaver.[2] As for Indicator 10, the project reached a level of compliance of 867 percent, referring to the land area and watercourses under proven early detection of beaver invasion. The project far exceeded the goal (corresponding to 1 499 100 ha and 13 660 km of watercourses under the SIAT) due to the creation and implementation of the SIAT. This system allows for the collection and monitoring of all records of georeferenced beaver data carried out by trained staff (Ministry of the Environment, SAG and CONAF) and citizens of the Magallanes Region, which has a land area of approximately 13 million ha. In addition, the satellite monitoring module designed for the SIAT makes it possible to monitor the entire Magallanes Region, including areas prioritized based on the highest probability of beaver presence.

Finding 8. The project made it possible to test methodologies and implement applied control activities on multifunctional private properties in the Magallanes Region. This expanded the beaver-free land area and watercourses. The evaluation found that these actions must be continued so that the effective control of the beaver invasion continues in these areas.

[2] These numbers correspond to information in the project's PIRs (including the 2022 PIR) and were confirmed by the project team. However, the Evaluation Team has not had the opportunity to verify them in the field.

Figure 7. The WCS staff setting traps (Marazzi River, Chile)

85. Demonstration activities for the control and monitoring of beavers carried out in the main watercourse of the Marazzi River resulted in high success for effective control and a low percentage of beaver repopulation. The project worked with 11 cattle ranches in the sector that allowed beaver control activities on their properties. Although the project team, together with contracted workers, carried out the beaver control practices, the owners and workers of the farms received training in the recognition of the species, the threats and impacts generated, the practices necessary to monitor the presence of beaver and control methods. This demonstrates the effort by the project team to strengthen farmer capacities in order to improve their understanding of the beaver problem and its dynamics in the territory. Despite the challenge of working with the livestock sector in a remote area and the cultural idiosyncrasies of the activity and the territory, this evaluation recognizes the work done on private cattle ranches as an important achievement of the project.

86. Various outputs contributed to the achievement of this result: the development of a methodology for sustained control and restoration in multifunctional private properties; and the systematization of experiences in a manual of good practices for the management of beavers in Magallanes. The manual presents lessons learned from the pilot projects. This includes the control, monitoring, restoration methodologies and results obtained to be applied in future interventions.

87. In terms of the level of achievement of this result, full compliance with Indicator 11 is established and refers to the number of watercourses in multifunctional private properties that are free of beaver and under restoration. The project worked with 11 cattle ranches. This allowed the project to carry out beaver control activities on their properties, including pilot tests that ended with 45 243 ha and 492 km of watercourses free of beavers.[3] As for

[3] These numbers correspond to information in the project's PIRs (including the 2022 PIR) and were confirmed by the project team. However, the Evaluation Team has not had the opportunity to verify them in the field.

Indicator 12, a level of comprehensive achievement was reached with 1 000 ha of forest in the recovery process.

Finding 9. The results-based management plan developed by the project facilitated corrective actions aimed at their applicability and achieving the objectives, as well as generating lessons learned for future operations.

88. The project was satisfactory and achieved successful implementation through results-based management. This is shown by the three extensions requested for the purpose of duly complying with the results proposed in the PRODOC. The work carried out after the MTR is also highlighted, which focused on developing the exit strategy in order to guarantee sustainability and progress towards the intended outcomes.

89. The semi-annual progress reports, which were delivered on time and in the required format, were all approved. This is an indicator of compliance.

90. The project results demonstrate sustainability (results-based management, M&E and dissemination), including: the development of the management plan for regional public policy; the creation and implementation of the SIAT, which can be adapted to work with other IAS in other territories and future operations; various publications and manuals, which are important documents that bring together experiences and valuable indications and recommendations for future experiences; the FNDR that will provide financing for the effective implementation of the management plan during its initial stage; and the communications strategy that has raised awareness and promoted sensitization related to the beaver invasion.

91. In terms of the level of achievement of this result, 100 percent compliance with Indicator 13 is established since the project achieved its expected results and demonstrated their sustainability. In this regard, it is confirmed that the project results and its compliance indicators were achieved and validated with key stakeholders. The main elements that demonstrate the sustainability of the results are: a) design and implementation of the SIAT as a decision-making tool; b) communications strategy with high impact on civil society and decision-makers; c) development of a governance model for IAS management with a management plan in the process of being approved as a regional public policy; and d) execution of the pilot projects, with practical lessons systematized in a good practices manual.

Finding 10. The seasonal nature of the Magallanes Region meant that the project faced difficulties in the effective implementation of the demonstration activities developed in the pilot areas.

92. A challenge for the development of the demonstration activities in the pilot areas was the fact that they are located in an extreme southern region. Consequently, the prevailing season has an important impact. This situation meant that only five months of effective work could be carried out per year. This considerably limited the control and monitoring work carried out in the field. It also generated delays in the execution of some consultancies that required validating their data in the field.

Finding 11. The results of the project contributed significantly to the development of subnational institutional frameworks and instruments and strengthened capacities for the control, prevention and effective management of beavers in ecosystems of high value for biodiversity in Magallanes and Chilean Antarctica.

93. The evaluation confirms that the achievement of results, as demonstrated by the proposed indicators, translated into significant progress towards the achievement of the global environmental objective of the project. This is expressed in the strengthening of institutional frameworks through robust governance with a management plan that includes guidelines to continue the work related to beaver management in multiple areas: specific political attributions; the responsibilities of relevant public institutions; the incorporation of different stakeholders of the territory; guidelines for fieldwork; and financing terms with an outlook of 15 years of execution. This plan, by being incorporated as a regional public policy, is provided with a policy framework for continued implementation in the long term. In fact, this is shown by the sustainability of its impacts. This governance framework for the management of beavers in the Magallanes Region was non-existent prior to project implementation. Its creation confirms the project's compliance with its proposed environmental objective. In addition, the strengthening of the technical capacities of authorities and public officials in terms of knowledge, training and a sense of urgency required for beaver management is emphasized in order to effectively protect biodiversity and ecosystems of high environmental value from the impacts of IAS.

Finding 12. The project's contribution to capacity development in executing effective management of IAS in productive landscapes in Magallanes and Chilean Antarctica facilitated the generation of conditions necessary to achieve the expected impact. In particular, the project worked with local cattle ranches in order to change the perception of farmers regarding the problem, develop their capacities and demonstrate good practices in pilot areas.

94. The evaluation considers it likely that the project will achieve the long-term effects established in its TOC.[4] This is because biodiversity conservation is being incorporated into the management of productive landscapes with an adequate risk management of biological invasions in the region. This progress is expressed through the work carried out by the project directly with cattle ranches in Magallanes and Chilean Antarctica. The project's impact on cattle ranchers is recognized in terms of a change in their perception of the importance, necessity and urgency of fighting the beaver invasion. This involves protecting the ecosystems and their services. It also deals with support received regarding the need to implement the management plan – not only in natural ecosystems but also in productive systems. This objective also materialized through the development of training sessions for ranchers, from recognizing the invasive species (beaver) and identifying signs of its presence to instruction on control methods that were tested and validated in the pilot areas.

95. Effectiveness: Satisfactory.

3.3 Efficiency

Finding 13. The project resources were sufficient to implement the project. The inputs were transformed into expected outputs in order to achieve the outcomes based on the project design.

96. The project had sufficient financial and human resources available to generate the outputs and outcomes considered in its design. An efficient use of available resources (financing, equipment, experiences, partnerships) is observed, which was key to carrying out an efficient strategy in project decision-making. This also allowed for all of the originally

[4] The long-term effects of the TOC are "the intermediate state" and the "expected impact" that correspond to the global environmental objective and the development objective, respectively, as established in the PRODOC.

proposed outputs to be generated. The formation of a project team of high technical quality was also important. This made it possible to use the available resources in a careful and timely manner. In fact, the efficient use of resources translated into an appropriate allocation for the different consultancies that had been formed to generate various outputs (such as the creation and implementation of the SIAT), as well as for the adequate execution of four pilot demonstration experiences, the prudent publication of dissemination material (such as the manual of good practices associated with beaver management) and the holding of workshops to exchange experiences on beaver management, among others. Although the project had to face changes in the political, social and health contexts during its implementation, which resulted in the request and approval of three extensions, it showed a high level of adaptability to address these changes and achieve its objectives set out in the PRODOC. The amount contributed by the GEF (USD 2 153 882) allowed the formation of a project team of high technical quality. This was in addition to making adequate equipment and infrastructure available to the project, as well as providing resources to cover the operating expenses necessary to develop its outputs and achieve the results planned in the PRODOC.

Finding 14. The project demonstrated an excellent ability to adapt to the challenges brought about by changes in the country's political, social and health context during implementation.

97. The project management was able to successfully adapt to changes in the conditions of the national and global context. This included: changes generated by the social uprising in 2019 (for example, certain political instability); changes of governments (for example, the project timeline coincided with the mandates of three presidents representing different party lines); the lack of definition regarding the approval of the SBAP; and the COVID-19 health emergency. For example, the COVID-19 pandemic caused modifications in the training programme, the monitoring of the project's operations in the field, and in the agendas and work programmes of public services and authorities, as well as in the budget execution and generation of outputs. However, the social isolation imposed by the pandemic created the obligation to adopt new working methods based on the remote modality. This demonstrated the project's adaptability in ensuring its efficient implementation. For example, although face-to-face meetings were not feasible during the pandemic, it was possible to generate budget savings.

98. The project also had to adapt to the fact that the creation of the SBAP, which was an initial assumption, was not achieved during the execution period. This situation led to a reconsideration of outputs that were in line with the development of governance frameworks, specifically the generation of specific regulations for IAS. Despite the non-compliance with this assumption, the project was able to adapt in a timely manner, proposing and developing alternatives to implement concrete results in terms of the management and governance of effective beaver management in the region. Specifically, this involved strengthening governance at the regional level, which is in line with the management plan that has been incorporated into the regional public policy.

99. In addition, there were delays in the development of some outputs. This is explained by the low presence of suppliers and the lack of existing capacity at the regional level. However, there were other aspects that facilitated the implementation of the project without delays, including work in the pilot areas with trained consultants. This made it possible to achieve the results in a timely manner. In addition, the project worked with people from the region. This avoided delays associated with the mobilization of staff.

100. During the project execution period (from 2016 to 2022), there were five authorities who held the position of the Regional Ministerial Secretariat for the Environment due to three changes of government that occurred in this period. This rotation made it difficult for the project to be implemented efficiently since it was subject to the perception of the project's importance by whoever held the position at the time. The support of the Regional Ministerial Secretariat for the Environment was important to mobilize project initiatives from a political-institutional point of view. In addition, the change of authorities created more work for the project team, which had to explain to each new authority information regarding the management of resources, the project activities and its logic of intervention.

101. Faced with this scenario of changing authorities, the ability of the project to adapt and respond was reflected in its robust management team. This team, made up of two people – the project coordinator and a technical assistant – was maintained throughout the implementation of the project (except for the inclusion of a third technical assistant in the final stage). It is also noted that there were no changes in the position of project manager from the design period to implementation. These factors all contributed to the achievement of the project results.

102. A political aspect that contributed to the achievement of results was the creation of the position of governor as head of the regional government (2020), which provided a new governance structure. The support of this state body was essential to obtain financing for the execution of the first two years of the management plan, which is in the process of being approved as a regional public policy.

103. The evaluation did not identify any unintended, additional or unexpected results during the project implementation period. Therefore, it is considered that the adaptations incorporated by the project (for example, replacing the creation of a specific regulation for IAS with a management plan integrated into a regional public policy) responded to contextual situations and were necessary to achieve the established objectives.

Finding 15. The administrative, procurement and contracting procedures adopted by FAO hindered and delayed the technical implementation of some activities and the approval of some outputs.

104. FAO has standardized and rigorous administrative procedures for procurement and contracting and for approvals of activities and outputs. This is considered by the evaluation to be a strength of the Organization. However, these requirements translated into a bureaucracy that impeded the project's technical execution since the implementation of some activities (especially those related to the pilot areas) required the intensive acquisition of goods, the contracting of external services and the approval of some outputs.

105. Potential delays due to administrative processes were not contemplated in the PRODOC or in the annual planning. This affected the schedule and delayed the planned activities. In addition, the context of the project execution in a remote area with intrinsic logistical difficulties in terms of acquisitions and the identification of specialists with local knowledge was not considered in the planning stage.

106. Efficiency: Satisfactory

3.4 Sustainability

Finding 16. The project results reached an adequate level of environmental, sociopolitical, institutional and financial sustainability. However, there are some aspects that must be consolidated and risks that must be managed to ensure the continuity of the processes initiated by the project (for example, to ensure that the FNDR resources are released, the SIAT is 100 percent operational and the management plan has confirmed financing for an outlook greater than two years).

Figure 8. Cover of the management plan

Organización de las Naciones Unidas para la Alimentación y la Agricultura

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PLAN REGIONAL PARA LA RECUPERACIÓN DE AMBIENTES DEGRADADOS POR EL CASTOR (*CASTOR CANADENSIS*) Y OTRAS ESPECIES EXÓTICAS INVASORAS EN LA REGIÓN DE MAGALLANES

Producto elaborado en el marco del Proyecto GEF: "Fortalecimiento y desarrollo de instrumentos para el manejo, prevención y control del castor (*Castor canadensis*), una especie exótica invasora en la Patagonia Chilena

Source: Government of the Republic of Chile, FAO and GEF. 2022. *Regional Plan for the Recovery of Environments Degraded by Beavers* (Castor canadensis) *and other Invasive Alien Species in the Magallanes Region.*

107. In 2020, the MTR identified that the project was unlikely to achieve sustainability and recommended developing a long-term strategy and providing for alternative resources, such as regional funds. This recommendation was accepted and, in 2021, the project prepared its Action and Sustainability Plan. In the last two years, the project worked systematically and intensely to strengthen its sustainability. The project ends with four key elements that support sustainability: i) the management plan (in the process of being approved as a regional public policy), which is a long-term strategy with a financial plan and governance structure; ii) financing for the implementation of the first two years of the management plan through the approval of an FNDR grant by the regional government; iii) the integration of the SIAT in the SIMBIO, as part of the Ministry of the Environment; and iv) the carrying out of successful communications and awareness raising campaigns that will continue thanks to resources from the FNDR.

108. The main aspect that must be strengthened to ensure continuity of the processes initiated by the project is the approval by the regional council of the management plan, making it a regional public policy. In this regard, the project partners, with the support of the Project Management Unit (PMU), carried out policy advocacy with the councillors. During the evaluation mission, it was determined that there is a positive expectation among the interviewees that the plan will be approved soon. In addition, a continuous flow of financing will be necessary to implement the management plan beyond the initial contribution of the

FNDR for its first two years (the plan will be implemented over a 15-year period). This is the main financial risk identified by this assessment.

109. The environmental risks are related to the following aspects: i) the possibility of reinvasion of beavers in the pilot areas; ii) the natural recovery of ecosystems in beaver-free areas since this process takes time; and iii) climate change, as it can modify beaver dispersal patterns and facilitate their advance northward. To a certain extent, these three risks will be mitigated with the implementation of the management plan (which includes instruments to monitor and act early in cases of reinvasion, in addition to M&E of the recovery processes of the Patagonian ecosystems where beavers have been eradicated) and the SIAT, which will allow the dispersion models to be quickly updated based on new climate change scenarios.

110. An institutional risk that could affect sustainability relates to possible changes in decision-makers and key institutions that may prioritize other issues. This reduces the importance given to this issue and limits funds for the implementation of the management plan. However, this risk has low probability since the key institutions (Ministry of the Environment, CONAF, SAG, regional government, Ministry of National Assets, Chilean Armed Forces) have stable professional teams and, in most cases, their actions are based on long-term regulatory priorities. In addition, the Ministry of the Environment, CONAF, SAG and the Chilean Armed Forces are members of the Operational Committee for the Prevention, Control and Eradication of Invasive Alien Species. Therefore, the main institutional risk is the non-implementation of the governance mechanisms established in the management plan.

111. The main sociopolitical risk is that the population changes its view on the importance of eradicating beavers from the Patagonian forests which, together with a variety of social priorities on the public agenda (education, employment, health), could reduce the sense of urgency and perceived importance of the topic. This risk was mitigated by planning a set of ongoing communications and awareness raising activities, both in the FNDR (which is expected to provide resources for the next two years) and in the management plan (through strategic communications and environmental education, which is one of the three structural components of the plan).

112. The terminal evaluation identified that there are moderate risks to sustainability. According to the GEF evaluation criteria rating system (see Appendix 3), the project is moderately likely to achieve the continuation of the positive effects of the intervention after project closure.

Finding 17. The capacity development activities had an integrated approach. The beneficiaries at the regional level acquired greater capacities in issues of biodiversity, ecosystem restoration and IAS.

113. Capacity development was a structural element of the project from its design to implementation. A clear sign of this is that the project explicitly defined that it would achieve its development objective through the development of capacities that allow for adequate management of the risk of biological invasions. Capacity development was a cross-cutting element in all of the components, outcomes and outputs of the project in the three dimensions of capacity development recognized by FAO: enabling environment, organizational and individual.

114. Regarding the individual dimension, various results can be highlighted, including the fact that all of the staff in charge of carrying out beaver control measures in the Ministry of the Environment, CONAF, SAG and the WCS were trained to implement good management practices and to monitor and generate information for the SIAT. One interviewee stated the following: "regarding the development of capacities, the project placed greater emphasis on public institutions and social communicators. As a result, a change of vision and education was generated." The evaluation identified strong indications (perceived, for example, in the way staff recognized the importance and urgency of promoting beaver eradication) that their knowledge, skills, competencies, attitudes, behaviours and values were improved or changed as a result of the activities developed by the project.

115. The organizational dimension of capacity development was strengthened both in terms of its operational capacity and knowledge and information resources (for example, the SIAT and manual of good practices). In addition, its legal framework is expected to be further strengthened with the potential approval of the management plan by the regional council. The knowledge sharing (for example, how to trap beavers instead of hunting with firearms) that occurred at the individual level was perceived to have a positive effect from the perspective of the results chain and the changes achieved by the project at the organizational level, especially in the last two years.

116. During the evaluation mission and the interviews carried out, a highly favourable environment was identified due to political commitment, a sense of urgency and a shared vision among the various stakeholders to achieve the project objectives (for example, inter-institutional coordination to promote the approval of the management plan). It should be noted that the plan, once approved, will further strengthen this dimension. In fact, once approved as a regional policy, it will become a key element by establishing the regulatory framework and inter-institutional governance structure in the region for beaver management in the Chilean Patagonia. In addition, an important stakeholder who was interviewed stated: "the management plan, as a model, can be applied to more species and incorporated in more regions with the potential for replication at the national level."

117. The evaluation identified that the capacities developed in the individual and organizational dimensions (see previous paragraphs) have permeated the institutional framework at the regional and community levels. For example, in recent months, the project developed a study on incentive mechanisms for cattle ranches to promote the expansion of the results of the pilot project (carried out on the 11 ranches near the Marazzi River) to other ranches in the region. These mechanisms were not related to the "beaver tail payment." Indeed, this proved to be a perverse incentive. Instead, these mechanisms provide technical assistance, control and recovery equipment, as well as a grant for the restoration of beaver-free ecosystems. This example demonstrates that the beneficiaries (farmers) adopted positive changes in attitudes and practices (from a passive position – considering the beaver not as their problem but as the Chilean State's – to a more collaborative position, recognizing that in order to face the challenge of eradicating the beaver, close collaboration between public and private actors is necessary). As a result, it was verified that the farmers who were involved in the project incorporated new knowledge and developed stronger capacities. Of course, greater efforts will continue to be necessary, as identified in the management plan, in order to generate the necessary cultural changes so that the group of ranch owners and their employees can act in a more active and coordinated way to face the beaver threat in Magallanes and Chilean Antarctica.

118. Further, on scalability and replicability, the project has prioritized such an issue in recent years. As a result of this effort, the management plan and the SIAT were designed as instruments that will make it possible to extend the results of the project to the entire Magallanes and Chilean Antarctica. Various stakeholders considered that the SIAT and the management plan can be used as models by the Chilean Government and other developing countries so that the results and experiences achieved by the project have greater value and potential for replication at the national, regional (Latin America and the Caribbean) and international levels.

119. Sustainability: Moderately likely.

3.5 Factors affecting performance

3.5.1 Quality of project design and implementation

Finding 18. The quality of the design was adequate for the project to start in a timely manner. However, operational aspects affected its ability to achieve full capacity during the launch phase. In particular, the time allocated for project implementation was insufficient. There was also limited understanding of the reality of the region in operational terms.

120. The design of the project was carried out in the period from 2013 to 2014 and adopted a contemporary vision to deal with IAS. The PRODOC identified and briefly described a broad relationship of stakeholders with active roles in the project. However, in the design of the project, a strategy was not considered to evaluate the institutional and technical capacities of key stakeholders for project execution.

121. The PRODOC identified six risks classified as low or medium. However, the risks to the project resulting from popular mobilizations (such as the social uprising from 2019 to 2020) and pandemic impacts (as was the case with the COVID-19 pandemic) were not identified in the Project Identification Form or the PRODOC. There was no mitigation plan in place because they would have been impossible to predict.

122. The evaluation found that there was insufficient time allocated for project development. In fact, the initial difficulty was in finding potential applicants for the positions of the project team in the Magallanes Region (a sparsely populated region). The limited supply of professionals who met the requirements led to a six-month delay in the start of the project. In addition, the 36-month period for project implementation was considered insufficient by various key stakeholders. Various stakeholders noted that the project design did not adequately recognize the reality of the region in operational terms, such as the degree to which seasonal nature affects fieldwork (four to five months a year) and the scarcity of staff in the region. A key interviewee who had been involved in the launch highlighted that "the low supply of professionals generated a six-month delay in the start of the project."

123. The long period of time between the project's design and its effective start date also affected the implementation process. For example, during the design stage, a letter of agreement with the WCS was drafted. This was no longer realistic in terms of the agreed upon amounts by the time of execution (four years later). This discrepancy meant a delay of eight months in the project due to the need to discuss and negotiate an agreement that was more in line with the reality of the execution period.

124. The aforementioned factors mean that the project faced difficulties in quickly and efficiently carrying out its launch phase.

125. Quality of design and preparation: Moderately satisfactory.

3.5.2 Monitoring and evaluation system

Finding 19. The project was approved without an adequate M&E plan. This affected the ability of the project team to make decisions and monitor progress towards the expected results.

126. The PRODOC contains a section on M&E, which provides a table with the results, indicators and means of verification. The results matrix presents the baseline and targets for these indicators. The amount allocated for M&E activities was USD 130 000. This section ends with a summary table of the main M&E reports, the people responsible for each one and their respective dates.

127. However, the PRODOC does not present an M&E plan. The project design did not include a baseline, nor did it adopt appropriate indicators to track gender-related results. In addition, the practical organization and logistics of M&E activities were not defined with the appropriate level of detail.

128. According to the PRODOC, the PMU would establish an M&E system for the project at the beginning of project implementation. The project coordination team was expected to prepare a draft M&E matrix. This would be discussed and approved by all key stakeholders during the launch workshop. The PRODOC indicated that participatory mechanisms and methodologies should be developed at that time to support the M&E of indicators for different outcomes and outputs, including: i) the review of M&E indicators and their baselines; ii) the description of the distribution of M&E tasks among the different project stakeholders; and iii) the selection of the methodology for data processing. However, no evidence was found that this was done as described in the PRODOC. This weakness seriously impeded the quick and easy access to relevant information to measure the progress towards results.

Finding 100. During implementation, the project met minimum M&E requirements, but a robust M&E system was not considered as an effective priority by the project partners. This limited the proper functioning of the M&E system.

129. During project implementation, the M&E system functioned in a limited yet satisfactory way. The usual GEF M&E tools were adopted: the PIRs; annual work plans; the MTR; the GEF tracking tools; and the terminal evaluation. To date, five PIRs have been carried out – the last one with information up to June 2022. In the case of annual work plans, one per year has been developed with their respective updates throughout the year. The MTR was completed in May 2020. The terminal evaluation was carried out on time. It was observed that the reports and plans were used by the project implementing partners in an appropriate way to improve project performance, especially the MTR. For example, the annual work plans were actively used as adaptive planning and control instruments from the beginning to the end of the project, contributing to the effectiveness of its execution.

130. The practical organization and logistics of the activities required to produce these reports and plans were largely left to the Project Coordinator. The project did not hire an M&E specialist to carry out this task. However, it should be noted that Component 3 of the project specifically addressed M&E issues, and Output 3.1.1 was the project progress M&E

system. Its goal, however, was only the delivery of the reports and plans mentioned in the previous paragraph.

131. M&E system: Moderately satisfactory.

3.5.3 Quality of implementation and execution

Finding 21. FAO satisfactorily fulfilled its role as implementing agency for the project. The quality of FAO's project identification, concept note preparation, monitoring and supervision was high.

132. FAO, through its Country Office in Chile, has played an active role in providing technical guidance for project design (including the preparation of the concept note, the Project Identification Form and the PRODOC) and implementation. It has sought to ensure technical quality and compliance with deadlines and donor guidelines (the GEF). FAO Chile supervised project execution in accordance with the PRODOC, work plans, budgets and FAO rules and procedures. It reported to the GEF secretariat on the progress of the project, mainly through the PIR and financial reports. FAO adequately conducted its M&E responsibilities, including the completion of the MTR and terminal evaluation. Communication and collaboration with FAO personnel in the Chile and Argentina Country Offices, as well as the Regional Office, was carried out smoothly and effectively. However, no evidence was found that FAO headquarters is taking ownership of the project results.

133. FAO provided support in different areas during the launch. This involved team selection and coordination with the implementation partners (Ministry of the Environment, SAG, CONAF, WCS). However, the evaluation concluded that the project could have benefited more if FAO had provided training to the key project stakeholders, especially the PMU members, in administrative and operational matters that are necessary for project implementation.

134. Quality of implementation: Satisfactory.

Finding 22. FAO, as a support agency (direct implementation modality) to the Ministry of the Environment (executing agency), satisfactorily fulfilled its functions related to the management and administration of the project.

135. The project's executing agency was the Ministry of the Environment. The Ministry of the Environment requested FAO to act as the financial and operational executing agency. The project was executed in the modality of direct implementation. FAO was responsible for the procurement of products and the contracting of services for the project, using the rules and procedures of the Organization. FAO also provided the services to administer the GEF resources. FAO made payments for goods, services and products through a request from the PMU and with the authorization of the project director (Ministry of the Environment).

136. It should be noted that the Ministry of the Environment adequately exercised its role as executing agency and as the leading institution of the project. National ownership of the project was guaranteed in various ways. For example, the project director (senior official of the Ministry of the Environment) played an important role in the design, decision-making, supervision and technical management of the project. This was done in close coordination with other members of the project steering committee (SAG, CONAF, WCS). It is also noted that the project team had its office at the Regional Ministerial Secretariat for the Environment in Magallanes and used the email system of the Ministry of the Environment. Although there was adequate internal separation in FAO between its role as the

implementing agency of the GEF and its role as a provider of administrative and operational support to the executing agency, this separation was not clearly visible to stakeholders outside of FAO.

137. Project funds were managed transparently by FAO. However, various interviewees suggested that FAO's administrative processes for the approval and operationalization of resources, whether for the contracting of services (for example, staff) or acquisitions (for example, tenders), took more time than expected. This resulted in delays, which showed a certain rigidity in terms of its procedures. For example, it determined that public tenders be held in all cases unless there is absolutely no other option for direct contracting. This was a limiting factor when working in remote areas, where there is often only one provider. Although this rigidity contributed to making the processes more transparent, the lack of willingness to use other instruments more suitable for remote regions (for example, direct contracting of a provider with proven experience or knowledge, or because they are the only provider that operates in the region) led to delays and efforts by the project team to negotiate exceptions. Given the various key project stakeholders, this should be considered the rule for remote regions.

138. The evaluation identified such rigidity challenges for the operation of FAO in a remote, sparsely populated region that is subject to adverse climatic conditions (very harsh winter) – as in the case of Magallanes and Chilean Antarctica. These conditions meant that there was a limited pool of suppliers and staff, greater logistical complexity in carrying out activities and that schedules, especially those for field activities, were largely dictated by seasonal nature.

139. The PMU effectively performed the role of manager and executor in the operational and administrative aspects of the project. This included the daily operation of activities, managing dozens of contracts and acquisitions of goods and services, coordinating and reviewing technical and communications products, and the preparation and negotiation of more than a dozen cooperation agreements. Although this was a small unit (for the most part, the project team had only a coordinator and a technical assistant), the key stakeholders interviewed said that the PMU was "very good," had "a good relationship with partners" and was key to the successful execution of the project. The dedication and commitment of the PMU, through a results-based management approach, ensured that the work planning processes were reflected in the results.

140. Finally, it should be noted that the strategic partners of the project (SAG, CONAF, WCS) fulfilled their commitments and functions in a satisfactory but differentiated manner. Some were more involved than others in certain products (for example, the WCS was directly involved in the execution of the Karukinka pilot project).

141. Quality of implementation and execution: Satisfactory.

3.5.4 Financial management and mobilization of expected co-financing

Finding 23. Although the institutions generated lower co-financing than the amount committed in the project design, this situation did not generate significant impacts on the development of the outputs and the achievement of results.

142. According to the PRODOC, 72 percent of the project's financial resources were to be provided through co-financing. This corresponds to USD 5 636 703 of the total USD 7 790 585 (the remaining USD 2 153 882 correspond to the GEF financing). The main

contribution was expected to come from the Chilean Government through the Ministry of the Environment, totaling USD 1 549 800, as well as from SAG (USD 1 166 370) and CONAF (USD 1 790 200). The remainder was to be provided by the WCS, FAO and the private sector (see Appendix 4).

143. Co-financing of USD 3 366 237 was reported in the project's last PIR (June 2022). This corresponds to 60 percent of the amount committed at the beginning of the project. The co-financing resources were managed directly by the contributors, and the evaluation did not have access to details of how the reported co-financing was calculated.

144. The co-financing received by the project from all institutions was lower than expected. The under-materialization of co-financing was attributed to two factors that had an impact on budgetary difficulties: the social uprising in Chile (2019) and the COVID-19 pandemic (from 2020 to 2021). These are plausible justifications for the evaluation. Despite this adverse situation, the implementation partners recognize and appreciate that the project was able to achieve the expected results.[5]

145. Financial management and mobilization of expected co-financing: Moderately unsatisfactory.

3.5.5 Project partnerships and stakeholder engagement

Finding 24. The project was proactive in developing activities with different stakeholders to ensure their involvement during implementation. This generated a greater degree of commitment on their part to contribute to the achievement of results.

146. The project's engagement with stakeholders is considered timely. Different stakeholders in the region were consulted on the outputs and outcomes that required their active involvement.

147. The project provided updated information on regional beaver management for stakeholders during implementation by sharing experiences and relevant information. For example, the project was active with cattle ranches at the start of implementation. Indeed, this sector is one of the main project beneficiaries. Efforts to engage and involve local farmers materialized in joint work with 11 cattle ranches. These agreed that the project could carry out control activities on their properties. In this regard, the livestock sector operated as a project partner and aligned with its objectives. This partnership was positive for the project. The high level of support for field activities and, consequently, the achievement of Outcome 2.2, effective beaver control on multifunctional private properties, shows this.

148. The project engaged with and involved the tourism sector of the Magallanes Region to spread the project's message. It worked with tour guide associations and terrestrial- and marine-related private tourism companies. Training workshops were also held to share information about the recognition of species, beaver management methods and the use of the SIAT in order to establish it as a tool for regular use by tourism companies. This is

[5] In the final review stage of the report, a project partner suggested to "consider the question of how much more could have been achieved if the co-financing had fully materialized." The partner commented that "although we do not know how much more, at least it is reasonable to think that more progress could have been made than what was achieved."

particularly important considering the territory covered by tour guides in the region and the usefulness for beaver monitoring purposes.

149. The project involved the academic sector in its implementation. Academics were invited to the meetings and results were shared. Also, the project team demonstrated its interest in using scientific conceptual approaches and making this information available to society.

Finding 25. The involvement of key partners and counterparts is considered timely and participatory. This allowed for the proper development of project implementation.

150. The project team worked hard to convene public institutions for participation in the development of frameworks for beaver management in the region. This was reflected in meeting minutes with a high level of participation.

151. The project developed a governance platform for beaver management in the region. This was achieved via consensus with the executing partners (Ministry of the Environment, CONAF, SAG, WCS). This enabled the creation of a management plan that is in the process of being approved as a regional public policy.

152. The partners participated actively in their roles as evaluators and validators of the outputs generated by the project. They were also active in the execution of experiences developed in the Karukinka Natural Park pilot areas (WCS), and in the Laguna Parrillar National Reserve (CONAF).

153. Although differences were observed in the participation and level of involvement of the project partners, the work of coordinating with state institutions should not be underestimated in terms of generating agreements related to the project's implementation approach. This must be contextualized within the Chilean institutional model, recognizing that the degree of partner participation is subject to the institutional mandate of each sector and that there may be some inter-institutional resistance in ministries as diverse as the Ministry of Agriculture and the Ministry of the Environment. This could affect the strength of the linkages between the partner institutions and the project.

154. It is important to highlight the work carried out with institutions of the Chilean Armed Forces, specifically the Army and the Navy, with which agreements were signed to start working with the SIAT in the relevant activities of each institution. Due to the fact that these institutions are present throughout the territory of the Magallanes Region, their willingness to work with tools such as the SIAT and their interest in collaborating and implementing these types of methodologies in their activities demonstrates the project's high capacity to promote the engagement and involvement of key stakeholders in the territory.

155. Project partnerships and stakeholder engagement: Highly satisfactory.

3.5.6 Communications, knowledge management and knowledge products

Finding 26. The successful execution of the communications strategy and knowledge management approach in terms of experiences developed, results achieved and lessons learned is one of the most valued aspects of the project.

156. Communications and knowledge management was one of the strongest and most valued aspects of the project. The communications strategy also focused on education. Further, it transmitted an ethical message about the problem of the beaver invasion in the region and

underscored the objective of conservation and the recovery of ecosystems rather than harmful species per se.

157. The implementation of this strategy made it possible to give adequate visibility to the issue in the region. It established a permanent presence in the press (audiovisual, radio, print) at the local, national and international levels. The project generated more than 300 articles that communicated the progress and good practices of the project. This is considered a positive indicator by the communications team.

158. The main knowledge products were disseminated in the form of manuals and publications, including the study of the economic and social valuation of beaver impacts, the trapping and good practices manual, and the SIAT management manual for stakeholders linked to beaver management. These products will be available in the repositories of the Ministry of the Environment. The information generated by the project was also communicated through its website. Products with high impact among the local population included a children's game that was promoted and disseminated in schools and kindergartens in the region, as well as notebooks and educational videos on YouTube and the project website. However, following the FAO communications guidelines, the project did not use social media networks like Facebook, Instagram or Twitter. Not being able to take advantage of these communications channels was recognized as a weakness in terms of reaching the community, especially given the wide use of these tools today.

159. These communications products and activities developed by the project support the sustainability and scaling up of the results achieved. It should be noted that, during the last year of the project, communications work was further strengthened to achieve greater impact in the press. The project team noted that, during the last month of implementation, a final analysis of communications, media engagement and the evolution of these aspects would be carried out to draw lessons learned and ensure the continuity and scalability of the project results.38ontinuityy of communications in the region is a priority issue for the Regional Ministerial Secretariat for the Environment. This involves support from the regional government with financing to be provided via the FNDR for the first two years of the management plan.

160. Communications, knowledge management and knowledge products: Highly satisfactory.

3.6 Cross-cutting issues

3.6.1 Gender

Finding 27. The project achieved some results in the gender area, even though gender-related aspects were generally not taken into account in the project design, implementation and evaluation. In fact, its objectives did not guarantee gender equity in participation and benefits or contribute to the empowerment of women.

161. The project was not designed with a gender approach as it was not a GEF requirement at the time of approval. In the PRODOC, gender is only mentioned in a short paragraph in the social sustainability section, where it states that "the project will support the gender approach in all stages of decision-making and project activities." According to this paragraph, "gender dimensions will be included by (i) ensuring the participation of women in capacity development and awareness raising activities; and (ii) promoting the

participation of women in eradication activities." However, there was no gender analysis or gender plan in the PRODOC, and the indicators were not broken down by gender.[6]

162. During its execution, especially after the MTR, the project considered issues related to gender equity more proactively in terms of participation and benefits. For example, the capacity development programme (Output 1.3.2) encouraged the participation of women in active reporting on beavers, and 25 women, representing 29 percent of the total number of participants (86), were trained in issues related to beaver management (monitoring, trapping, measurement of environmental recovery indicators, etc.).

163. The evaluation found no evidence that the project actively worked towards women's empowerment. Regarding M&E, gender-disaggregated data was not collected, which limited the monitoring of gender-related issues.

164. The management plan mentions that "gender equity will be encouraged in all instances of governance." However, this is the only mention of the subject in the document, and it does not explain how the plan should take into account the gender approach. Also, the application for funding to the FNDR does not mention the issue of gender.

165. It should be noted that the project partners had the perception, based on previous experiences and on the response to calls presented by the project that, in general, women were not interested in beaver trapping activities. In fact, this required many days of working in the forest under harsh conditions.

166. This terminal evaluation considers that men and women have been equally affected in a positive manner by the project decision-making and its results. For example, the SIAT benefits men and women in the region in a similar way. The control of the beaver invasion is designed to protect the region's biological heritage, which is an important asset that benefits men and women equally. No evidence was found that the project harms or could harm women.

167. Gender: Moderately unsatisfactory.

3.6.2 Minority groups, including Indigenous Peoples, disadvantaged people, vulnerable people, people with disabilities and youth

Finding 28. The project did not adopt specific approaches for minority groups, including Indigenous Peoples, disadvantaged people, vulnerable people, people with disabilities and youth.

168. The project's design did not incorporate issues regarding these stakeholders beyond a superficial analysis of Indigenous Peoples related to environmental and social safeguards. The PRODOC indicates that there is no Indigenous population in the project intervention area nor Indigenous communities outside the project area that may be affected by its implementation. In the PRODOC, there is no reference to the role of young people, people with disabilities and vulnerable populations.

[6] During the presentation of the initial findings, key stakeholders of the project highlighted that "gender was not a priority area for the project. As such, its scope must be considered in this context, including the cost of focusing on this issue versus the benefit it brings in such a process. However, gender indicators must be incorporated in all FAO projects, even if the objectives do not focus on issues relevant to gender equality."

169. The MTR recommended that the project should "consider and integrate Indigenous communities as one more stakeholder in the territory should a claim for land rights be generated in Tierra del Fuego." It should be noted that a little over a century ago this region was inhabited by Indigenous Peoples (for example, the Selk'nam, Kawésqar and Yagán peoples) who were eliminated or expelled from their territories. The project partners recognize the importance of the indigenous issue at the national level. However, the evaluation found no evidence that this issue was incorporated into the project results (for example, no evidence was found to show that the project considered the regulatory environment). It is important to mention that there are Indigenous communities belonging to the Yagán people who currently reside on Navarino Island. Although the island is outside the pilot areas, it is one of the territories covered by the SIAT and the beaver management plan. However, there is no evidence of the involvement of these communities in the project activities.

170. Young people were considered as a target audience in some communications and training activities. In this regard, the activities carried out by the project included a painting contest to encourage the participation of young people and children, and the distribution of games related to the importance of restoring the Patagonian forests invaded by beavers. In the final stage of the project (September 2022) an agreement was signed between the Ministry of the Environment and the Magallanes State Technical Training Centre, which will promote the training of young people from the region as ecological restorers. They will then be able to play an important role in the recovery of ecosystems damaged by beavers in Magallanes.

171. Minority groups: Moderately unsatisfactory.

3.6.3 Environmental and social safeguards

Finding 29. Environmental and social issues were adequately considered in the design and implementation of the project.

172. In the project design, the FAO guidelines for environmental impact assessments were applied and the environmental and social assessment was carried out (see Annex 8 of the PRODOC). In this regard, the project presented low environmental and social risk as it did not generate significant negative effects on ecosystems or people. Moreover, the project generates significant environmental benefits as it has worked to eliminate a major cause of the degradation of forests, ecosystems and rivers in the Chilean Patagonia.

173. Sensitive issues, such as aspects related to hunting techniques and the disposal of dead specimens, were addressed by the project team before the start of the interventions. Methods were also adopted following the highest international standards on the ethical treatment of animals (for example, the adoption of trapping with quick-kill equipment). As the beaver is a charismatic animal, the project took precautions to avoid criticism from animal movements uninformed about the project's goal and methods. Among the precautions is the way in which the project was presented through the communications and dissemination programmes. This focused on the terrible impacts generated by the beaver in the ecosystems of southern Chile and on the need for their restoration rather than on the hunting and killing of the invasive animal.

174. The fieldwork in the pilot areas exposed the workers (trappers or restorers) to adverse climatic and working conditions. In this regard, the project took precautions in terms of food handling, health, transportation and conditions in the base camp. During the COVID-19 pandemic, the project adopted the security protocols of FAO and the Chilean Government, protecting not only the workers in the field but also its management team, partners, collaborators and beneficiaries.

175. Environmental and social safeguards: Highly satisfactory.

4. Conclusions and recommendations

4.1 Conclusions

Conclusion 1. Strategic relevance: the design, implementation and effects of the project are considered highly important for the country and aligned with its goals. The components, outputs and outcomes were coherent with the strategic priorities of the GEF, the objectives of FAO, the sectoral policies of the Chilean State and the needs of the beneficiary groups. The high importance and relevance of the project provided a favourable scenario to ensure good adherence of the actions implemented and adequate levels of interest and participation of the stakeholders, together with a favourable context to promote its institutional ownership and sustainability.

Conclusion 2. Effectiveness: the evaluation concludes that the actions implemented, as well as the outputs and outcomes achieved, made a significant contribution to the improvement and strengthening of the institutional capacities of the Chilean State and of the capacities of communities in Magallanes and Chilean Antarctica to face the challenge presented by IAS management. This reflects the high quality of technical execution and the high level of achievement of the goals and indicators formulated by the project. This important contribution came from the programmatic execution of Components 1, 2 and 3, which allowed the project to achieve good levels of implementation and make significant progress towards the proposed long-term effects.

Conclusion 3. Efficiency: the efficiency in the execution of the project was influenced by circumstances that affected its implementation schedule (especially the health emergency due to COVID-19, the social uprising in Chile, government changes and FAO's rigorous procurement processes), which forced the project team to seek three extensions. However, considering the results achieved, the quality and quantity of outputs produced, the synergies generated, the progress towards sustainability and the effective financial execution, the evaluation considers that the efficiency of the project was the best possible given these adverse circumstances. It is also important to highlight the high quality of adaptation during the implementation process by the project team, which was able to overcome the adversities faced by the project in this five-year period in order to achieve the objectives in the PRODOC in a proactive, responsible and timely manner.

Conclusion 4. Factors affecting performance – design: despite deficient aspects, the project design was adequate. This includes not having a strategy for the involvement of key stakeholders, insufficient time allocated for project implementation and a lack of understanding of the reality of the Magallanes Region in operational terms. These factors had an impact on the project, causing difficulties in the launch stage to enable quick and efficient implementation. Despite the challenges of the project design, it ensured the quality of implementation processes and products according to the GEF requirements.

Conclusion 5. Factors affecting performance – M&E: the absence of an adequate M&E plan at the start of the project affected the ability of the project team to make decisions and monitor progress towards results. The minimum M&E requirements were met during the implementation process in a limited yet satisfactory way, even though the use of a robust and detailed system for M&E was not identified.

Conclusion 6. Factors affecting performance – implementation and execution: despite limitations in the implementation process, the terminal evaluation identified that FAO satisfactorily carried out its work as an implementing agency. For its part, the executing agency, the Ministry of the Environment, satisfactorily performed its management and supervisory functions with a guaranteed level of national ownership. An adequate internal separation between the role of FAO

as an implementing agency and its role in providing support on administrative and operational issues to the executing agency (Ministry of the Environment) is also recognized, but this separation was not so clear for external actors. Some rigid FAO administrative procedures created difficulties in implementation, which highlighted operation challenges in remote regions. For its part, the effective performance of the PMU as the project manager is recognized both in administrative and operational terms as being key to the successful execution of the project.

Conclusion 7. Factors affecting performance – co-financing: it is concluded that the under-materialization of the co-financing committed in the formulation of the project did not significantly affect the achievement and quality of the outputs and outcomes generated by the project. This is mainly because the project was able to fully achieve its expected results despite this adverse situation.

Conclusion 8. Factors affecting performance – partnerships: partnerships with stakeholders were achieved to varying degrees and in different forms. This provided access to updated information regarding beaver control while ensuring satisfactory levels of stakeholder engagement and facilitating adequate achievement of the project results. For their part, the project partners were also involved and actively participated in the implementation, both in their counterpart and executing roles in some pilot areas.

Conclusion 9. Factors affecting performance – communications: communications and knowledge management were key success factors for the project's achievements. These were used to give adequate visibility and positioning to the regional issue through the generation of multiple products. As a result, it is observed that an important part of society recognizes and values the project and demonstrates an understanding of the urgency and need to address the problem in the future.

Conclusion 10. Cross-cutting issues – gender: despite the fact that project design and implementation did not consider the gender perspective or an explicit strategy aimed at gender equality objectives, some achievements in this area can be observed. In particular, this involves the training programme. Men and women were affected positively and, to a certain extent, equitably by the project's actions.

Conclusion 11. Cross-cutting issues – Indigenous Peoples and youth: The project did not consider specific approaches for minority groups, Indigenous Peoples, vulnerable people or people with disabilities. There is no evidence of the planned involvement of any of these groups in the project activities. Only the inclusion of young people was considered in some project activities associated with environmental education and, in the future, with the Magallanes State Technical Training Centre to train forest restorers. It is concluded that the progress made by the project related to this cross-cutting issue is insufficient.

Conclusion 12. Sustainability: it is concluded that the four main pillars to achieve sustainability were achieved during project implementation. Various factors promoted or generated by the project helped to establish a favourable scenario and good prospects for sustainability, including: the high valuation of the activities implemented during the project by the beneficiaries and civil society; the development of capacities, as well as the interest and commitment expressed by the authorities and state officials; the creation of a governance structure; the level of certainty regarding the management plan incorporated as a regional public policy; the generation of instruments for decision-making; and the commitment of key institutions regarding the need and urgency to carry out long-term beaver management activities in the Magallanes Region.

4.2 Recommendations

Recommendation 1. It is recommended that the project partners (Ministry of the Environment, CONAF, SAG, WCS) continue the necessary actions so that the management plan is approved by the regional council and implemented urgently.

176. Suggestions are outlined in the following points.

i. Action 1. Despite the general perception that the management plan will be approved, the project partners must closely monitor and promote its approval.

ii. Action 2. Control actions (trapping) must be taken immediately, as established in the management plan, to avoid a temporary gap in actions that may allow the dispersal of beavers.

Recommendation 2. The Ministry of the Environment should continue implementing intensive training activities related to the use of the SIAT, especially for the public science module.

177. The SIAT is a powerful tool that is underutilized. For example, the public science module, which allows the population of and visitors to the region to be involved in the task of recording beaver sightings (or the impacts caused by them), is not yet operational.

i. Action 1. The public science module should be implemented.

ii. Action 2. Capacities must be developed so that stakeholders, such as fisherfolk associations, maritime authorities of the Navy and the new park rangers can use the SIAT as a daily work tool.

Recommendation 3. It is recommended that the project partners (Ministry of the Environment, CONAF, SAG, WCS) continue working together with a strong and unified communications and awareness raising strategy, as established in the action plan and the FNDR.

178. Efficient communications and awareness raising among the population and key stakeholders will continue to be necessary elements to achieve the successful implementation of the management plan. The following points are among the recommended actions.

i. Action 1. Prepare and disseminate a communications manual for journalists, which will make it easier for members of the press to continue correctly communicating information related to this issue.

ii. Action 2. Continue to clearly communicate the importance of implementing the management plan.

iii. If possible before project closure, clearly and effectively communicate the project achievements. Compare the situation regarding governance and access to information before and after the project.

Recommendation 4. It is recommended that the project partners (Ministry of the Environment, CONAF, SAG, WCS) incorporate an adequate approach to gender issues, Indigenous Peoples and vulnerable groups in the operational instruments of the management plan. This includes the actions planned for the next two years in the FNDR.

179. The issues of gender and vulnerable populations are among the evaluation criteria considered in the Moderately Unsatisfactory range. The proposed actions are as follows.

i. Action 1. Include the recognition of the previously existing Indigenous Peoples in the communications activities of the management plan and the FNDR.

ii. Action 2. Create a strategy for the inclusion of gender issues, Indigenous Peoples and vulnerable groups in the key components of the management plan and the FNDR. Particular attention should be placed on young people and Indigenous communities that belong to the Yagán people who currently reside on Navarino Island.

Recommendation 5. It is recommended that the Chilean and Argentine Governments, especially the implementation partners of the GEF IAS projects in the two countries, maintain and strengthen cooperation mechanisms. They should work jointly on beaver eradication in Patagonia.

180. Coordination between Chile and Argentina is critical to address the beaver threat since it is clearly a binational challenge. Based on the accumulated experience of more than 20 years of collaboration – strengthened by the almost simultaneous execution of two GEF projects on IAS (one in each country) – the following action is recommended.

i. Develop a binational strategic plan that establishes solid bases for lasting and stable cross-border inter-institutional technical coordination. This involves the establishment of binational dialogues and high-level political agreements.

Recommendation 6. The GEF project developers in Latin America and the Caribbean, including the GEF focal points, should include key aspects to improve project designs in the PRODOC of future GEF projects.

181. The GEF projects, which seek to promote long-term transformational changes, should incorporate a set of aspects from their design that would facilitate achieving high-level impacts and could increase the efficiency of implementation. The proposed actions are outlined in the following points.

i. Action 1. Include an internal and external communications plan as an annex in the PRODOC. Have an assigned budget and indicators to monitor progress.

ii. Action 2. Include a sustainability plan to be implemented from the initial stages of the project as an annex in the PRODOC. Have an assigned budget and indicators to monitor progress.[7]

iii. Action 3. Consider an estimate of the time required to operate in remote regions in the project schedule and planning. Here, seasonal nature acts as a limiting factor for various activities.

iv. Action 4. Consider an estimate of the time required for FAO to operationalize the contracting and procurement processes in the project schedule and planning (for using the direct implementation modality).[8]

[7] During the presentation of the initial findings, key stakeholders of the project highlighted that the communications and sustainability plans could be included in the PRODOC. It was stated that: "without incorporating many details so that it is possible to have guidelines involving the partners from the outset, but that can be updated/modified as implementation progresses. The launch stage and the MTR may be good times for these two plans to be reviewed."

[8] As much as possible, FAO should seek to make its contracting and procurement processes faster without affecting their robustness and reliability. Among the suggestions presented by a key stakeholder in the project is "include time limits and clear processes for approval by the procurement team."

v. Action 5. Avoid adopting assumptions that are beyond the scope of the project and that can structurally affect its implementation (as was the case with the assumption that the SBAP would be created). In the case of assumptions that have a structural effect, the PRODOC should develop scenarios and corrective measures or adjustments in the event that the assumption fails to materialize.

vi. Action 6. Consider an implementation period of at least four years for projects that aim to achieve long-term transformational changes, as was the case with the GEF Castor Chile project.

vii. Action 7. Include a launch plan (inception plan) as an annex in the PRODOC. Have an approximate duration of six months and an appropriate budget.

Recommendation 7. The GEF projects in Latin America and the Caribbean, including the GEF focal points, should make proper use of the launch phase in future GEF projects.

182. The launch phase is a period, ideally six months, that covers the time between the contracting of the project team and the effective start of its implementation (launch workshop). Beyond the construction of the work plan for the first year and together with the organization of the launch workshop, this period should be used to carry out the following actions.

i. Action 1. Update and detail all the strategic instruments of the project since they had been prepared many years before in the design stage and often do not contain the level of detail necessary for implementation. This is because the social, political, economic and environmental context may have changed. The main instruments include: i) the logic framework (calculate the baseline, validate indicators, etc.); ii) the TOC; iii) the M&E plan; iv) the gender strategy; v) the communications plan; vi) the strategy for the involvement of key stakeholders; vii) the capacity development plan (including the capacities of the team responsible for project management); viii) a strategy to minimize and avoid impacts due to the movement of staff, if applicable; and ix) a sustainability strategy.

ii. Action 2. Clearly define the schedules, responsibilities and terms of contracts and acquisitions.

iii. Action 3. Review or draft and validate the TOR for the first year of the project.

iv. Action 4. Train the key stakeholders of the project in the administrative, operational, technical and soft skills necessary for the implementation of the project.

5. Lessons learned

Lesson learned 1. A key aspect for the sustainability of the project lies in the inter-institutional relations and agreements. This relates to the responsibilities and attributions of each institution, the decision-making procedures and the communications channels to be implemented. This is also the case regarding the proper functioning of the established governance bodies and mechanisms in order to ensure the implementation of the management plan in the Magallanes Region in the short term. However, in the medium and long term, it is very important to have a public institution responsible for transversal leadership on issues related to the management of IAS at the national level, which highlights the need for the creation of the SBAP.

Lesson learned 2. In order to achieve effective beaver control in Patagonia, there is a clear need to have a binational agreement between Chile and Argentina. This requires the establishment of high-level political dialogue and binational inter-institutional technical coordination.

Lesson learned 3. Knowledge management, understood as the systematization, exchange and dissemination of good practices, lessons learned, results and outputs of the project (documents, manuals, audiovisual material, training, databases, etc.), contributes to institutional ownership, the possibilities of scalability and replication, and the participation and adherence of the beneficiary groups, among other improvements in project performance.

Lesson learned 4. Communicating efficiently is essential for a project of this nature, which depends on both decision-makers and the population to promote long-term actions. Communication supports the dissemination and transparency of the processes, helps to raise awareness and maintain the attention of the stakeholders, serves as a tool for institutional and community appropriation, and supports the management of the knowledge generated. In this regard, maintaining an active communications strategy throughout the project implementation period, combined with the development of a political advocacy strategy in the final stage, was an effective and necessary measure. These actions should be replicated in other initiatives implemented by FAO and the Ministry of the Environment.

Lesson learned 5. The identification of the contextual reality in the location where the project is to be developed is a key aspect to start the implementation effectively. This prior understanding or screening of the local or national reality, as the case may be, implies identifying aspects related to culture, climate, access, seasonal nature, demography and the supply of goods and services, among other factors. These can identify gaps or difficulties so that corrective measures can be anticipated and adopted to avoid potential negative impacts on the project. With proper prior consideration of the local context, the difficulties that the project faced due to being located in a southern and remote region like Magallanes could have been corrected.

Lesson learned 6. As a result of the current reach and impact of social networks, an important lesson of this project to be applied in future operations is that social networks should be actively used to achieve regular dissemination and awareness raising of relevant issues related to the project. In addition, mechanisms must be sought so that once the project is finished, the operability of these tools is not lost.

Lesson learned 7. Although government changes and the rotation of authorities and public officials is a normal process in countries, this affects the fluidity of communication, the level of appropriation, and the performance of and capacity for project advocacy. In this regard, it is considered that expert advice and staff, combined with operational strategies in political advocacy, would help to mitigate this type of risk.

Bibliography

Bierbaum, R. *et al.* 2018. *Integration: To Solve Complex Environmental Problems. Scientific and Technical Advisory Panel to the Global Environment Facility*. Washington, DC, STAP-GEF. Cited 10 February 2023. www.thegef.org/sites/default/files/publications/STAP%20Report%20on%20integration.PDF

CBD (Convention on Biological Diversity). 2007. Convention. Article 8. In-situ Conservation. In *cbd.int*. Montreal. Cited 7 July 2023. www.cbd.int/convention/articles/?a=cbd-08

CBD. 2020. Aichi Target 9. In: *cbd.int*. Montreal. Cited 7 July 2023. www.cbd.int/aichi-targets/target/9

Durango, S., Sierra, L., Quintero, M., Sachet, E., Paz, P., Da Silva, M. Valencia, J. & Le Coq, J.F. 2019. *Status and prospects of natural resources and ecosystems in Latin America and the Caribbean (LAC). 2030 – Food, agriculture and rural development in Latin America and the Caribbean*, No. 9. Santiago, FAO.

FAO (Food and Agriculture Organization of the United Nations). 2012. *Guide to the Project Cycle: Quality for Results*. FAO internal document.

FAO. 2013. *FAO Policy on Gender Equality. Attaining Food Security Goals in Agriculture and Rural Development.* Rome. Cited 7 July 2023. www.fao.org/3/i3205e/i3205e.pdf

FAO. 2015a. *Environmental and Social Management Guidelines*. Rome. Cited 10 February 2023. www.fao.org/3/i4413e/i4413e.pdf

FAO. 2015b. *FAO Policy on Indigenous and Tribal Peoples.* Rome. Cited 10 February 2023. www.fao.org/3/i4476en/i4476en.pdf

FAO. 2016a. *Our Priorities: The FAO Strategic Objectives*. Rome. Cited 10 February 2023. www.fao.org/3/c0334e/c0334e.pdf

FAO. 2016b. *Free, Prior and Informed Consent: An Indigenous Peoples' Right and a Good Practice for Local Communities.* Rome. Cited 7 July 2023. www.fao.org/3/i6190e/i6190e.pdf

FAO. 2017. *FAO Strategy on Climate Change*. Rome. Cited 10 February 2023. www.fao.org/3/i7175e/i7175e.pdf

FAO. 2019a. *Evaluation of FAO's Work on Gender. ANNEX 1. Terms of Reference*. Thematic Evaluation Series. Rome. Cited 10 February 2023. www.fao.org/publications/card/en/c/CA3756EN/

FAO. 2019b. *OED Capacity Development Evaluation Framework*. Rome. Cited 10 February 2023. www.fao.org/3/ca5668en/ca5668en.pdf

FAO. 2020a. FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors. Rome. Cited 6 July 2023. www.fao.org/documents/card/en/c/CA7722EN

FAO. 2020b. *Informe del 36.º período de sesiones de la Conferencia Regional para América Latina y el Caribe (19–21 de octubre de 2020).* [Report: 36th Session of the FAO Regional Conference for Latin America and the Caribbean (19–21 October 2020)]. LARC/20/ REP. Santiago. Cited 6 July 2023. www.fao.org/3/cb3899es/cb3899es.pdf

FAO. 2020c. *Terminal evaluation of the GEF project "Strengthening and development of instruments for the management, prevention and control of beaver (Castor canadensis), an invasive alien species in the Chilean Patagonia" – Mid-term review.* Rome.

FAO. 2021a. FAO Policy on Gender Equality 2020–2030. Rome. Cited 6 July 2023. www.fao.org/documents/card/en/c/CB1583EN

FAO. 2021b. *The Director-General's Medium Term Plan 2022–25 and Programme of Work and Budget 2022–23*. C2021/3. Rome. Cited 6 July 2023. www.fao.org/3/ne576en/ne576en.pdf

FAO. 2021c. *Strategic Framework 2022–2031*. C2021/7. Rome. Cited 10 February 2023. www.fao.org/3/cb7099en/cb7099en.pdf

GEF (Global Environment Facility). 2010. *GEF-5 Focal Areas Strategy*. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/documents/GEF-5_FOCAL_AREA_STRATEGIES.pdf

GEF. 2012. *Principles and Guidelines for the Participation of Indigenous Peoples*. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/publications/Indigenous_Peoples_Principle_EN.pdf

GEF. 2017a. *Politica sobre la Igualdad de Genero*. [Policy on Gender Equality]. GEF/C.52/04. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/council-meeting-documents/SP_GEF.C.53.04_Gender_Policy.pdf

GEF. 2017b. *Guidelines on the Project and Program Cycle Policy*. GEF/C.52/Inf.06/Rev.01. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.52.Inf_.06.Rev_.01_Guidelines_on_the_Project_and_Program_Cycle_Policy.pdf

GEF. 2017c. *Policy on Stakeholder Engagement*. GEF/C.53/05/Rev.01. Washington, DC. Cited 6 July 2023. www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.53.05.Rev_.01_Stakeholder_Policy_4.pdf

GEF. 2018a. *Updated Policy on Environmental and Social Safeguards*. GEF/C.55/07. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.55.07.Rev_.01_ES_Safeguards.pdf

GEF. 2018b. *Guidelines on Co-financing*. FI/GN/01 www.thegef.org/sites/default/files/documents/GEF_FI_GN_01_Cofinancing_Guidelines_2018.pdf

GEF. 2018c. *Policy on Co-financing*. FI/PL/01. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/documents/GEF_FI_PL_01_Cofinancing_Policy_2018.pdf

GEF. 2018d. *Guidelines on the Implementation of the Policy on Stakeholder Engagement*. SD/GN/01. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/documents/Stakeholder_Engagement_Guidelines.pdf

GEF. 2018e. *Guidelines on Gender Equality*. SD/GN/02. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/documents/Gender_Equality_Guidelines.pdf

GEF. 2019a. *The GEF Evaluation Policy (Prepared by the Independent Evaluation Office of the GEF)*. GEF/ME/C.56/02/Rev.01. 13 June 2019. Washington, DC. Cited 6 July 2023. www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.ME_C56_02_Rev01_GEF_Evaluation_Policy_June_2019_0.pdf

GEF. 2019b. *Theory of Change Primer*. GEF/STAP/C.57/Inf.04. Washington, DC. Cited 10 February 2023. www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF_STAP_C.57_Inf.04_Theory%20of%20Change%20Primer_0.pdf

GEF. 2019c. *Guidelines on Core Indicators and Sub-indicators*. ME/GN/02. Washington, DC. Cited 10 February 2023. https://wwfgeftracks.com/sites/default/files/2019-04/indicators_0.pdf

GEF. 2019d. Independent Evaluation Office (IEO). GEF Introduction Seminar [Presentation]. Cited 10 February 2023. www.thegef.org/sites/default/files/events/2019-GEF-IEO-Familiarization-1-17-19.pdf

GEF. 2019e. *Policy on Monitoring*. GEF/C.56/03/Rev.01. Washington, DC. Cited 6 July 2023. www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.56.03.Rev_.01_Policy_on_Monitoring.pdf

GEF Evaluation Office. 2007. *GEF Evaluation Office Ethical Guidelines*. Evaluation Document No. 2. Washington, DC. Cited 10 February 2023. https://iwlearn.net/resolveuid/0203a506dcbb2de5c905a9c28e403a5d

GEF Evaluation Office. 2009. *The ROtI Handbook: Towards Enhancing the Impacts of Environmental Projects*. Methodological Paper #2. Washington, DC. Cited 6 July 2023. www.gefieo.org/sites/default/files/documents/ops4-m02-roti.pdf

STAP (GEF Scientific and Technological Advisory Group). 2019. *Achieving Enduring Outcomes from GEF Investment*. Washington, DC. Cited 10 February 2023. https://stapgef.org/sites/default/files/publications/DURABILITY_web%20posting_2.pdf

Stocking, M. *et al.* 2018. *Managing Knowledge for a Sustainable Global Future: Scientific and Technical Advisory Panel to the Global Environment Facility*. Washington, DC, STAP. Cited 10 February 2023. www.stapgef.org/resources/advisory-documents/managing-knowledge-sustainable-future

Toth, F. 2018. *Innovation and the GEF: Scientific and Technical Advisory Panel to the Global Environment Facility*. Washington, DC, STAP. Cited 10 February 2023. https://stapgef.org/sites/default/files/2020-02/STAP%20Innovation%20report_WEB_compressed.pdf

UN (United Nations). 2015. *Transforming Our World: the 2030 Agenda for Sustainable Development. Resolution Adopted by the General Assembly on 25 September 2015 [without reference to a Main Committee (A/70/L.1)]*. New York. Cited 10 February 2023. www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_70_1_E.pdf

UNEG (United Nations Evaluation Group). 2008a. *UNEG Code of Conduct for Evaluation in the UN System*. UNEG/FN/CoC(2008). New York. Cited 6 July 2023. https://procurement-notices.undp.org/view_file.cfm?doc_id=245190

UNEG. 2008b. *UNEG Ethical Guidelines for Evaluation*. New York. Cited 6 July 2023. www.alnap.org/system/files/content/resource/files/summary/UNEG_Ethical_Guidelines_for_Evaluation_2020.pdf

UNEG. 2013. *Impact Evaluation in UN Agency Evaluation Systems: Guidance on Selection, Planning and Management*. New York. Cited 10 February 2023. www.uneval.org/document/download/1880

UNEG. 2014. *Integrating Gender Equality and Human Rights in Evaluation: UN-SWAP Guidance, Analysis and Good Practices*. New York. Cited 10 February 2023. www.uneval.org/document/detail/1452

UNEG. 2016. *Norms and Standards for Evaluation.* New York. Cited 6 July 2023. www.unevaluation.org/document/detail/1914

Appendix 1. People interviewed

Last name	First name	Position	Organization/location
Acosta	Erika	Administrative assistant	FAO
Álvarez	Eugenia	Environment Secretariat of the Province of Tierra del Fuego	Regional government, Tierra del Fuego, Argentina
Arancibia	Jane	Teacher	Nobelius School
Arredondo	Cristóbal	Land research coordinator	WCS
Asenjo	Rafael	Head, Natural Resources Division	SAG central level
Campos	Lorenzo	Funding Liaison Officer	FAO
Casaza	Jessica	Technical consultant or Principal leader officer	FAO
Cerda	Claudia	Associate researcher	University of Chile
Chacón	Mauricio	Head, park ranger	WCS
Constanzo	Javiera	Technical assistant	WCS
Cruz	Gustavo	Research associate	University of Chile
Donoso	Alberto	Researcher	Explora Magallanes Programme
Dougnac	Catherine	Research director	WCS
Droguet	Daniela	Regional Ministerial Secretariat for the Environment	Ministry of the Environment Magallanes Region
Fernández	Aurora	Administrator	King Penguin Reserve
Fierro	Karim	Presidential delegate Province of Tierra del Fuego	Ministry of the Interior
Guerra	Felipe	Project coordinator	FAO/Ministry of the Environment
Henríquez	Juan Marcos	Researcher	University of Magallanes
Hernández	Carla	Professional	CONAF Magallanes Region
Herreros	Jorge	Professional, Biodiversity Planning Department	Ministry of the Environment central level
Illescar	José	Major, V Division	Chilean Army
Jadrievic	Miroslava	Project press officer	Pauta Creativa
Kasulin	Inés	Director, Natural Resources	Ministry of the Environment Argentina
Kusch	Alejandro	Project technical assistant	FAO/Ministry of the Environment
Lara	Jonathan	Project technical assistant	FAO/Ministry of the Environment
Latorre	Etel	Head, Development, Promotion and Industry Unit	Magallanes regional government
Madrid	Baudilio	Head, Enforcement and Environment Unit	Ministry of Public Works (Water Operations Bureau)
Mattar	Cristian	Director	Agrospace
Maynard	Jaime	President	Magallanes Tour Guide Association
Mendoza	Susana	Deputy chief, Operations Department	Australis Cape Horn and Patagonia
Molina	Rodrigo	Wildlife coordinator	SAG Magallanes Region
Montecinos	Jaime	Commander III naval zone	Chilean Navy
Moreira	Darío	Researcher	Cienciambiental
Morera	Rodrigo	Task manager	FAO
Muñoz	Guillermo	Press officer	CONAF Magallanes Region
Orellana	Stephanie	Researcher	Cienciambiental
Ortíz	Hivy	Field programme lead officer	FAO
Pauchard	Aníbal	Academic	University of Concepción
Pérez	Francisca	Press officer, Regional Ministerial Secretariat for the Environment	Ministry of the Environment Magallanes Region
Pizarro	Evelyn	Park ranger	Strait of Magellan Park

Last name	First name	Position	Organization/location
Pizarro	Juan Francisco	Professional, Natural Resources and Biodiversity Division, Regional Ministerial Secretariat for the Environment	Ministry of the Environment Magallanes Region
Quezada	Christián	Rector	Technical Training Centre, Tierra del Fuego
Quilaqueo	Ricardo	Head, Department of Biological Diversity Conservation	CONAF central level
Robertson	John	Owner	Estancia Tres Hermanos
Sáez	Andrea	Operations officer	FAO
Sáez	Nicolás	Student	Nobelius School
Sepúlveda	Lucas	Student	Nobelius School
Silva	Alejandra	Regional director	CONAF Magallanes Region
Soto	Nicolás	Chief, Department of Natural Resources	SAG Magallanes Region
Stevens	Caroline	Director	Pauta Creativa
Stutzin	Miguel	GEF operational focal point in Chile	Ministry of the Environment central level
Tala	Charif	National project manager	Ministry of the Environment central level
Tironi	Alberto	Director	Cienciambiental
Torres	Marcela	Researcher	Cienciambiental

Appendix 2. GEF evaluation criteria rating table

GEF criteria/subcriteria	Rating[i]	Summary comments
A. STRATEGIC RELEVANCE		
A1. Overall strategic relevance	HS	The project demonstrated high strategic relevance for the host country.
A1.1. Alignment with the GEF and FAO strategic priorities	HS	The project was in line with the biodiversity priorities and operational strategies of the GEF and FAO.
A1.2. Relevance to national, regional and global priorities and beneficiary needs	HS	The project was relevant to national and regional IAS priorities and met the needs of the beneficiaries.
A1.3. Complementarity with existing interventions	HS	The project had excellent complementarity with the GEF IAS project in Argentina, also implemented by FAO.
B. EFFECTIVENESS		
B1. Overall assessment of project results	S	The results of the project contributed significantly to the region having strengthened institutional frameworks, instruments and capacities for the control, prevention and effective management of beavers.
B1.1. Delivery of project outputs	S	The project has satisfactorily achieved all the expected results, as shown by the high level of its achievement indicators.
B1.2. Progress towards outcomes[ii] and project objectives	S	The project promoted significant advances towards the achievement of the environmental and development objectives established in the PRODOC.
B1.3. Likelihood of impact	S	The project is likely to achieve the long-term effects stated in its theory of change (TOC).
C. EFFICIENCY		
C1. Efficiency[iii]	S	Project resources were used in a timely manner, even though some administrative procedures adopted by FAO slowed down execution. Three no-cost extensions were required.
D. SUSTAINABILITY OF PROJECT OUTCOMES		
D1. Overall likelihood of risks to sustainability	ML	There are moderate risks to sustainability, but the project has taken steps to mitigate most of them.
D1.1. Financial risks	ML	The continuous flow of financing over 15 years will be necessary to implement the management plan. Resources are guaranteed only for the first two years.
D1.2. Sociopolitical risks	ML	Changes in the perception of the population and priorities of the social agenda can reduce the sense of urgency and relevance of combating the beaver threat.

GEF criteria/subcriteria	Rating[i]	Summary comments
D1.3. Institutional and governance risks	ML	The main risk is the non-implementation of the governance mechanisms provided for in the management plan.
D1.4. Environmental risks	ML	Three risks were identified: beaver reinvasion, slow natural recovery of ecosystems and climate change.
D2. Catalysis and replication	ML	The management plan and the SIAT were developed as instruments to extend the results to the entire Magallanes and Chilean Antarctica and can serve as a model to be replicated in other regions. However, there are some risks to the sustainability of their implementation and use.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and readiness[iv]	MS	Although there were deficient aspects, the project design was adequate.
E2. Quality of project implementation	S	The implementation was done properly according to the guidelines of the donor (the GEF).
E2.1. Quality of project implementation by FAO (Budget Holder, Lead Technical Officer, Project Task Force, etc.)	S	FAO has satisfactorily carried out its work as an implementing agency, with some limitations in its implementation.
E2.2. Project oversight (project steering committee, project working group, etc.)	S	The Ministry of the Environment, in close coordination with other members of the steering committee, adequately supervised the project.
E3. Quality of project execution For decentralized projects: Project Management Unit (PMU)/Budget Holder For Operational Partners Implementation Modality projects: executing agency	S	Implementation was satisfactory, however some inflexible FAO administrative procedures created difficulties for the operation in a remote region.
E4. Financial management and co-financing	MU	The lower-than-expected materialization of the co-financing (60 percent of the projected amount) was attributed to external factors that led to budgetary difficulties.
E5. Project partnerships and stakeholder engagement	HS	Stakeholder engagement was timely and occurred to varying degrees and forms.
E6. Communications, knowledge management and knowledge products	HS	This was one of the strongest and most valued aspects of the project, allowing adequate visibility and positioning of the issue in the region.
E7. Overall quality of M&E	MS	The GEF minimum requirements were met, but the project did not have a robust M&E system.
E7.1. M&E design	MU	The project was approved without a proper M&E plan. It was indicated that the M&E system would be defined during project implementation.
E7.2. M&E implementation plan (including financial and human resources)	MS	During implementation, the project met the minimum M&E requirements, operating in a limited but satisfactory manner.

GEF criteria/subcriteria	Rating[i]	Summary comments
E8. Overall assessment of factors affecting performance	S	Some factors negatively affected project implementation (e.g. co-financing and M&E design), but others promoted it (e.g. communications and partnerships).
F. CROSS-CUTTING ISSUES		
F1. Gender and other equity dimensions	MU	The project was not designed to contribute to gender equity nor the empowerment of women.
F2. Human rights issues/Indigenous Peoples	MU	The project did not consider specific approaches for minority groups, Indigenous Peoples and vulnerable people.
F3. Environmental and social safeguards	HS	Environmental and social safeguards and environmental standards were adequately considered in project design and implementation.
Overall project rating	**S**	

Notes: [i] See rating scheme in Appendix 3.

[ii] Assessment and ratings by individual outcomes may be undertaken if there is added value.

[iii] Includes cost efficiency and timeliness.

[iv] This refers to factors affecting the project's ability to start as expected, such as the presence of sufficient capacity among executing partners at project launch.

See Appendix 3 for more information on the GEF evaluation criteria rating system.

Appendix 3. Rating scheme

See instructions provided in Annex 2: Rating Scales in the "Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects", April 2017.

PROJECT RESULTS AND OUTCOMES

Project outcomes are rated based on the extent to which project objectives were achieved. A six-point rating scale is used to assess overall outcomes:

Rating	***Description***
Highly Satisfactory (HS)	*Level of outcomes achieved clearly exceeds expectations and/or there were no shortcomings.*
Satisfactory (S)	*Level of outcomes achieved was as expected and/or there were no or minor shortcomings.*
Moderately Satisfactory (MS)	*Level of outcomes achieved more or less as expected and/or there were moderate shortcomings.*
Moderately Unsatisfactory (MU)	*Level of outcomes achieved somewhat lower than expected and/or there were significant shortcomings.*
Unsatisfactory (U)	*Level of outcomes achieved substantially lower than expected and/or there were major shortcomings.*
Highly Unsatisfactory (HU)	*Only a negligible level of outcomes achieved and/or there were severe shortcomings.*
Unable to Assess (UA)	*The available information does not allow for an assessment of the level of outcome achievements.*

During project implementation, the results framework of some projects may have been modified. In cases where modifications in the project impact, outcomes and outputs have not scaled down their overall scope, the evaluator should assess outcome achievements based on the revised results framework. In instances where the scope of the project objectives and outcomes has been scaled down, the magnitude of and necessity for downscaling is taken into account. Despite the achievement of results as per the revised results framework, a lower outcome effectiveness rating may be given where appropriate.

PROJECT IMPLEMENTATION AND EXECUTION

Quality of implementation and of execution will be rated separately. Quality of implementation pertains to the role and responsibilities discharged by the GEF agencies that have direct access to GEF resources. Quality of execution pertains to the roles and responsibilities discharged by the country or regional counterparts that received GEF funds from the GEF agencies and executed the funded activities on ground. The performance will be rated on a six-point scale:

Rating	***Description***
Highly Satisfactory (HS)	*There were no shortcomings and the quality of **implementation** or **execution** exceeded expectations.*
Satisfactory (S)	*There were no or minor shortcomings and the quality of **implementation** or **execution** meets expectations.*
Moderately Satisfactory (MS)	*There were some shortcomings and the quality of **implementation** or **execution** more or less meets expectations.*
Moderately Unsatisfactory (MU)	*There were significant shortcomings and the quality of **implementation** or **execution** was somewhat lower than expected.*
Unsatisfactory (U)	*There were major shortcomings and the quality of **implementation** or **execution** was substantially lower than expected.*
Highly Unsatisfactory (HU)	*There were severe shortcomings in the quality of **implementation** or **execution**.*
Unable to Assess (UA)	*The available information does not allow for an assessment of the quality of **implementation** or **execution**.*

MONITORING AND EVALUATION

Quality of project M&E will be assessed in terms of:

i. design
ii. implementation

SUSTAINABILITY

Sustainability will be assessed by taking into account the risks related to the financial, sociopolitical, institutional and environmental sustainability of project outcomes. The evaluator may also take other risks into account that may affect sustainability. The overall sustainability will be assessed using a four-point scale:

Rating	***Description***
Likely (L)	*There is little or no risk to sustainability.*
Moderately Likely (ML)	*There are moderate risks to sustainability.*
Moderately Unlikely (MU)	*There are significant risks to sustainability.*
Unlikely (U)	*There are severe risks to sustainability.*
Unable to Assess (UA)	*Unable to assess the expected incidence and magnitude of risks to sustainability.*

Appendix 4. GEF co-financing

Name of the co-financier	Type of co-financier*	Co-financing at the beginning of the project (amount confirmed by the project design team at the time of ratification/approval by the GEF CEO) (in USD)			Co-financing reported on 30 June 2022 (in USD)		
		In cash	**In-kind**	**Total**	**In cash**	**In-kind**	**Total**
Ministry of the Environment	National government	124 760	1 425 040	1 549 800	81 281	235 005	316 286
CONAF	National government	114 200	1 676 000	1 790 200	198 385	627 572	825 975
SAG	National government	16 965	1 149 405	1 166 370	0	1 491 929	1 491 929
WCS	Non-governmental organization	89 614	803 858	893 472	61 499	475 548	537 047
FAO	International organization	20 000	200 000	220 000	15 000	180 000	195 000
Estancia Tres Ríos and TERAIKE S.A.	Private sector	2 493	14 368	16 861	0	0	0
Total		**368 032**	**5 268 671**	**5 636 703**	**356 165**	**3 010 054**	**3 366 237**

Note: * The following are some examples: local, provincial or national government; autonomous semi-governmental institutions; the private sector; multilateral or bilateral organizations; educational and research institutions; non-profit organizations; civil society organizations; foundations; beneficiaries; the GEF agencies; and others (specify).

Appendix 5. Results matrix

Outcome	Indicators	Baseline	Goal at the end of the project	Level of achievement	Comments by the Evaluation Team
Outcome 1.1: management and governance frameworks ensure effective management and the control of invasion on the Magallanes Archipelago and the Brunswick Peninsula	1. Points obtained in the GEF tracking tool (Section VI on IAS, Questions 1, 2, 3)	1/13	6/13	100%	The project achieved 6/13 points in the GEF tracking tool (Section VI on IAS)
	2. Presence of a mechanism for the control and eradication of beaver in Magallanes and Chilean Antarctica, designed and validated with the participation of all stakeholders	Lack of institutional mechanisms	Control and eradication mechanisms implemented	100%	The management plan is finalized, validated and has been submitted for approval as a regional public policy. The regional government approved an FNDR to finance the first stage of the management plan.
	3. The hectares (Magallanes Region, excluding Antarctic territory) vulnerable to beaver invasion under control and effective management of the invasion	0 ha	13 229 700 ha under effective management to control the beaver invasion	100%	13 229 700 ha covered by the SIAT, the dispersion model and the management plan. It is estimated that 113 786 ha were directly covered by the activities of the pilot projects. 1 000 000 ha indirectly covered by the beaver detection training programme and by monitoring carried out by tour guides in the region.
Outcome 1.2: decision-makers have updated, systematized and accessible information on beaver management in the Magallanes Region, including data on	4. Points obtained in the GEF tracking tool (Section VI on IAS, Questions 4, 5, 6)	3/16	13/16	100%	The project achieved 13/16 points in the GEF tracking tool (Section VI on IAS).
	5. The SIAT designed and being implemented	There is no information and early warning system, nor is there permanent	The SIAT is designed, validated and implemented.	100%	The SIAT is designed and was disseminated through training provided to different profiles of

Outcome	Indicators	Baseline	Goal at the end of the project	Level of achievement	Comments by the Evaluation Team
operational zoning, dispersal, monitoring, early detection, recovery-restoration and research		monitoring to ensure the adequate detection of beaver invasion.			administrators. The system is in operation for the registration of forest restorers, and dispersion model and satellite monitoring. It is integrated into the SIMBIO platform of the Ministry of the Environment. The launch of the public science module is pending.
Outcome 1.3: regional institutions and civil society recognize the importance of beaver eradication and restoration practices in the Magallanes Region, including the recovery of riparian forests with endemic species	6. Officials from the Ministry of the Environment, SAG and CONAF recognize the importance of eradicating invasive species for biodiversity and productive areas in the region	There is little knowledge and insufficient capacities among citizens and institutions to control the beaver invasion. There is a lack of communication and attention to the problem.	75% of officials are aware of the beaver invasion problem.	133%	100% of staff from the WCS, the Ministry of the Environment, CONAF and SAG institutions in the region recognize the importance of eradicating IAS.
	7. Staff from the Ministry of the Environment, SAG and CONAF assigned to beaver control, management and eradication measures implement good practices		100% of the good practice recommendations are implemented and validated.	100%	The staff in charge of carrying out beaver control measures were trained to implement good management practices and to monitor and generate information for the SIAT.
	8. Number of members of civil society who are aware of the impact of the beaver as an invasive species on agricultural systems and vulnerable ecosystems		3 000 people have improved their knowledge and awareness regarding the impact of the beaver invasion.	274%	It is estimated that 8 215 people have improved their knowledge and awareness regarding the impact of the beaver as an IAS. As a result of the implementation of the communications strategy and the dissemination of

Outcome	Indicators	Baseline	Goal at the end of the project	Level of achievement	Comments by the Evaluation Team
					information, the project has increased the awareness and sensitization of the population in relation to the problems and environmental impacts caused by the beaver in the region.
Outcome 2.1: the beaver invasion is under effective control in selected areas of native forest and peatbog ecosystems in the Magallanes Region and the recovery process of riparian forests with endemic species has begun	9. Number of hectares and kilometres free of beavers and under basic restoration (i. watercourse recovery process; and ii. Amount of organic matter in river basins)	Development of beaver control activities in the Karukinka and Laguna Parrillar nature reserves, according to the budget and operational availability in the affected watercourses (the baseline will be defined in the first year of the project through satellite images as part of the cooperation agreement between FAO and Google Earth).	68 543 ha and 574 km of watercourses are beaver free (beaver-free watercourses are under recovery to conditions similar to those not affected, organic matter in the sediment decreases in beaver-free basins).	145% in area (ha) and 124% in km of watercourses	It is established that 99 624 ha and 1 175 km are beaver free, as detailed in the following pilot areas. La Paciencia Valley: 18 481 ha and 270 km are beaver free. Laguna Parrillar National Reserve: 18 000 ha and 193 km are beaver free. San Juan River Basin (co-financed by SAG): 63 143 ha and 712 km are beaver free.
	10. Number of hectares and kilometres of watercourses under proven early detection of beaver invasion	0	The early detection of beaver in 1 499 100 ha and 13 660 km of watercourses is under development.	867%	13 million ha and more than 13 660 km of watercourses: the implementation of the SIAT allows for the collection and monitoring of all georeferenced beaver records made by trained staff (Ministry of the Environment, SAG, CONAF), as well as records of sightings by citizens of the Magallanes Region. This represents a total of approximately 13 million ha.

Outcome	Indicators	Baseline	Goal at the end of the project	Level of achievement	Comments by the Evaluation Team
					The SIAT satellite monitoring module is expected to monitor the entire region and prioritize areas based on the highest probability of beaver presence.
Outcome 2.2: the beaver invasion is under effective control on selected multifunctional private properties in the Magallanes Region	11. Number of watercourses on multifunctional private properties that are beaver free and under restoration	The owners of the cattle ranches carry out eradication activities in an early stage and on an occasional basis.	45 243 ha and 450 km of watercourses are beaver free.	100%	The pilot projects ended up with 45 243 ha and 492 km of beaver-free watercourses in the Marazzi River. The project worked with 11 cattle ranches, which agreed to allow beaver control activities on their properties.
	12. Number of forests in the recovery process (of lenga beech trees *Nothofagus pumilio*)		1 000 ha of forest are in the recovery process.	100%	1 000 ha of forest in the process of recovery, corresponding to small patches of lenga beech forest grouped mainly on the southern limit of the pilot area (note: the pilot area is dominated mainly by grasslands and scrub for sheep grazing).
Outcome 3.1: the project has been implemented through a results-based management approach, and the results and lessons learned can be used in future operations	13. Project results are achieved and demonstrate sustainability	The project presents a results framework with a baseline, indicators and goals validated with key stakeholders.	Project results were achieved and show sustainability.	100%	The results of the project and its compliance indicators were achieved and validated with key stakeholders. The main results achieved that demonstrate sustainability are: design and implementation of the SIAT as a decision-making tool;

Outcome	Indicators	Baseline	Goal at the end of the project	Level of achievement	Comments by the Evaluation Team
					communications strategy with high impact on civil society and decision-makers; creation of a governance model for IAS management with a management plan in the process of being approved as a regional public policy; and execution of the pilot projects with practical lessons shared through a manual of good practices.

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