

TERMINAL EVALUATION OF THE UNDP / ADAPTATION FUND PROJECT

Reducing vulnerability to coastal flooding through
ecosystem-based adaptation in the South of
Artemisa and Mayabeque provinces of Cuba

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Evaluation report

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ACRONYMS

AF	Adaptation Fund
AMA	Environmental Agency (by its initials in Spanish)
AWP	Annual Work Plan
BASAL	Environmental Bases for Local Food Security
CDB	Convention on Biological Diversity
CGB	Forest Ranger Corps (by its initials in Spanish)
CITMA	Ministry of Science, Technology and Environment (by its initials in Spanish)
EbA	Ecosystem based Adaptation
EMIDICT	Specialized Import, Export and Distribution Company for Science and Technology (by its initials in Spanish)
FAO	Food and Agriculture Organization of the United Nations
FLACSO	Latin American Faculty of Social Sciences (by its initials in Spanish)
FONADEF	National Forestry Development Fund (by its initials in Spanish)
GCF	Green Climate Fund
GEF	Global Environment Facility
HVR	Hazard, Vulnerability and Risk
IAS	Invasive Alien Species
ICIMAR	Institute of Marine Sciences (by its initials in Spanish)
IES	Institute of Ecology and Systematics
INAF	National Institute of Agroforestry Research (by its initials in Spanish)
INRH	National Water Resources Institute (by its initials in Spanish)
M&E	Monitoring and Evaluation
Mi Costa	Adaptation to climate change in Cuba's coastal areas through an ecosystem-based approach
MINAG	Ministry of Agriculture
MINCEX	Ministry of Foreign Trade and Investment (by its initials in Spanish)
MTR	Mid-term review
OP-15	Capacity Building for Coordination of Information and Monitoring/Sustainable Land Management Systems in Areas with Water Resources Management Problems
PADIT	Articulated Platform for Integral Territorial Development (by its initials in Spanish)
PMC	Project Management Costs
PMU	Project Management Unit
PPR	Project Performance Report
SDGs	Sustainable Development Goals
ToR	Terms of Reference
UNDP	United Nations Development Programme
UNFCCC	United Nations Convention on Climate Change

UNEG	United Nations Evaluation Group
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EXECUTIVE SUMMARY

Brief description of the project

The project entitled "Reducing vulnerability to coastal flooding through Ecosystem-based Adaptation (EBA) in the south of Artemisa and Mayabeque provinces", better known as Manglar Vivo (Living Mangrove), aimed to increase the resilience of coastal communities of six municipalities in the south of these two provinces to coastal erosion, flooding and marine intrusion caused by climate change primarily through the recovery and restoration of mangroves. The project was financed by the Adaptation Fund (AF), with an AF budget of USD 6,067,320. It was implemented by UNDP Cuba and executed by the country's Ministry of Science, Technology and Environment (CITMA by its initials in Spanish) and Ministry of Agriculture (MINAG by its initials in Spanish) for a period of 6 years, from 1 October 2014 to 30 September 2020 (the project, initially lasting 5 years, was extended by one year).

Objectives and scope of the evaluation

The objective of this consultancy is to carry out the final evaluation of Manglar Vivo. This evaluation analyses the relevance, design, effectiveness, efficiency, sustainability and impact of the project. It also identifies lessons learned and provides recommendations. The conclusions of the document are based on the review of relevant documentation and interviews with key stakeholders. The evaluation team consists of three evaluators. Only one of them was able to make field visits, and these were limited due to the pandemic caused by COVID-19. The evaluation team has triangulated the data collected to answer the evaluation questions.

Overall Project Rating

The evaluation concludes that Manglar Vivo was relevant, very effective and efficient. Monitoring and evaluation was moderately satisfactory. Implementation by the implementing agency was very satisfactory, while the performance of the executing agency was satisfactory. Sustainability is likely in financial, socio-political, institutional and political terms, and moderately likely from an environmental point of view.

Table 1. Evaluation results¹

Evaluation Ratings:			
1. Monitoring and Evaluation		<i>rating</i>	2. IA& EA Execution
M&E design at entry		MS	Quality of UNDP Implementation
M&E Plan Implementation		S	Quality of Execution - Executing Agency
Overall quality of M&E		MS	Overall quality of Implementation / Execution
3. Assessment of Outcomes		<i>rating</i>	4. Sustainability
Relevance		R	Financial resources:
Effectiveness		HS	Socio-political:
Efficiency		S	Institutional framework and governance:
Overall Project Outcome Rating		HS	Environmental:
			Overall likelihood of sustainability:
			L

Main findings

In terms of **relevance**², Manglar Vivo is consistent with the United Nations conventions on climate change, wetlands, and biodiversity, the international guidelines on EbA, and the objective, results, and outputs of the AF. The project is also in line with UNDP priorities at global, regional and national levels and Cuba's United Nations Development Assistance Framework 2014-2018. Furthermore, the project is in tune with national strategies and priorities in the areas of economic and social development, climate change and environment, and responds to the problems and needs of the provinces and municipalities where it focuses. All stakeholders were actively involved in the design and implementation of the project.

The **project design**³ formulated a fairly clear and well-integrated structure, with a few exceptions. However, there are important gaps in relation to climate information; the connectivity of coastal ecosystems with terrestrial and marine ecosystems; the built environment; and the promotion of alternative livelihoods and the modification of practices of productive sectors other than forestry. These limitations are relatively understandable, given the relatively limited financial resources available, the time frame and the pilot nature of this project.

The targets are feasible and realistic within the budget, but not within the timeframe of the project. The results framework included in the project document does not allow the achievement of the goal or the key intermediate result to be measured. Overall, 80% of the indicators in the results framework are not specific and/or consistent. The identification of risks is moderately adequate, but their analysis is inappropriate.

The project document does not clearly integrate lessons learned from other projects. The project document does a good job at identifying and analysing complementary international projects and identifying synergies. During its implementation, the project had a high level of coordination with other international cooperation interventions and with work and research initiatives carried out by Cuban institutions.

¹ Following the rating scales provided in Annex D of the ToR and page 25 of the UNDP/GEF guidelines for final evaluations.

² For details, see section 3.1

³ For details, see section 3.2

In terms of **effectiveness**⁴, at the end of the project, all the final targets of the results framework in the project document have been met, and 8 or 50% have been exceeded. All the FA targets have also been met, and 5 or 25% have been exceeded. This analysis is based on important assumptions. Section 3.6 examines impacts in terms of vulnerability and ecosystem health based on available information.

To achieve these results, Manglar Vivo had to overcome some significant challenges. The risk mitigation strategies identified in the project document were adequate, although the strategy with regard to the import of goods was insufficient. During the implementation of the project, the actions to mitigate the risks that arose were appropriate. The project showed a high capacity for adaptive management.

From the point of view of **efficiency**⁵, the project has spent the budget foreseen in the project document. Financial performance improved over time. There are important differences in the financial implementation by component, as the cost of goods and services was not accurate in the design. Project management costs are and are expected to be slightly lower than planned. Manglar Vivo was able to mobilize 382 percent of the co-financing committed in the project document. The co-financing, all in kind, helped mitigate the impact of the delay in importing some goods and exceed some of the targets. The project produced financial reports and audits with the required regularity, with room for improvement in terms of their quality.

The cost-effectiveness of Manglar Vivo was probably intermediate. Its management costs (6.5% of total costs) are below the FA ceiling (9.5%), but above the GEF and GCF ceilings for projects of this size (5%). Available information indicates that ecosystem restoration was cost-effective and that EbA is more cost-effective than adaptation through the construction of grey infrastructure.

An appropriate M&E plan is included in the project document. As indicated, the results framework has major shortcomings. During implementation, especially from the mid-term evaluation, the project strengthened the M&E system. Reporting has been appropriate in terms of quantity, but its quality is average: often reporting does not respond completely, directly or clearly to the system of indicators.

The project established effective partnerships with relevant actors. The Steering Committee, the Project Management Unit (PMU), the Environmental Agency (AMA by its initials in Spanish) and UNDP played their roles well and had a fluid dialogue. Despite all this, the project was extended by one year, at no cost.

The **sustainability**⁶ strategy is sound, although more attention should have been paid to other connected ecosystems, the integration of sustainability into productive sectors other than forestry, and the promotion of alternative livelihoods.

From the point of view of the policy, regulatory and institutional framework, the necessary conditions have been established to make the project's results sustainable in the short, medium

⁴ For details, see section 3.3.

⁵ For details, see section 3.4.

⁶ For details, see section 3.5.

and long term. From the financial point of view, the provinces of Artemisa and Mayabeque and the project's municipalities have already secured substantial resources to give continuity to the results of Manglar Vivo, especially those related to ecosystem restoration. In addition, the forests are insured. Furthermore, there is progress in mobilizing international resources. The project has provided equipment that will facilitate the continuity of the project's results. From a socio-cultural perspective, the project has strengthened the awareness and technical capacity of almost all relevant actors. There is also a strong political will to give continuity to the project's results and technical capacities and knowledge transfer mechanisms to do so. From an environmental perspective, the project results are subject to significant risks, including the occurrence of major extreme climate events; the expansion of Invasive Alien Species (IAS); and the degradation of connected ecosystems.

In terms of **impact**⁷, in the short term, pressures on ecosystems have been considerably reduced, but are not negligible. These pressures are likely to be limited in the medium to long term. The economic blockade of the country and the COVID-19 do not help to reduce these pressures.

There is no comprehensive information on the health of coastal ecosystems. Available information suggests an improvement. In addition, available information indicates an improvement in the health of marine and terrestrial ecosystems. The health of these ecosystems is expected to improve over time.

There is little scientific evidence on the impact of the project in reducing vulnerability to coastal flooding. It is reasonable to think that the restoration of coastal ecosystems, the cleaning of ditches and channels, and the strengthening of planning, management and response capacities have reduced the vulnerability of target populations to these aspects. There is anecdotal evidence in this regard. Those who have benefited most are the populations immediately on the coast. A AMA study will assess vulnerability reduction more rigorously in 2021.

Manglar Vivo contributed to the Sustainable Development Goals (SDGs), had socio-economic benefits, respected environmental and social safeguards, and promoted gender equity and the inclusion of youth. The evaluation team has identified only positive unexpected outcomes.

The project provided public goods in the form of new knowledge, approaches and technologies and took steps to disseminate these public goods. There are excellent prospects in terms of replication and/or scaling up. The results of the project have informed the development of policies and strategies. During the project, the project approach was applied in other areas of the country. There are prospects for replication in the municipalities and, to a greater extent, the project provinces, and other provinces of the country. In addition, the lessons learned during the implementation of this project are being used in the design of other projects to be financed with international resources, of different scales. At the international level, there has been no concrete progress in replicating the lessons learned during the implementation of the project.

Recommendations

Based on the findings above, this evaluation has the following recommendations.

⁷ For details see section 3.6.

Table 2. Summary of recommendations and responsible parties

No.	Recommendation	Responsible Party
1	Prepare a document describing the aspects to be taken into account in the preparation of an integrated management plan for the coastal basins that drain into the mangroves of southern Artemisa and Mayabeque (AMA) and submit it to the National Watershed Council	PMU, AMA
2	Organise a workshop to identify and characterise the lessons learned during the implementation of the project, and consolidate them, integrate them into a document and disseminate them	PMU, AMA, UNDP
3	Use these lessons in the development and implementation of new projects	AMA, PMU, AF
4	Promote that the vulnerability assessment planned for the project are is actually conducted and takes into account Manglar Vivo, and ensure that lessons learned are factored in in the design of new projects	AMA