

## Validated Terminal Review of the UNEP-GEF Project

### “Consolidation of National Capacities for the Full Implementation of the Cartagena Protocol on Biosafety in Panama” (GEF ID 3631)

2011 – 2022



**UNEP ECOSYSTEMS DIVISION**

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Consolidation of National Capacities for the Full Implementation of the Cartagena Protocol on Biosafety in Panama

GEF ID 3631

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## ACKNOWLEDGEMENTS

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The review consultant hopes that the findings, conclusions, and recommendations will contribute to the successful closure of the project, and if possible, to the formulation of a next phase and the continuous improvement of similar projects in other countries and regions.

## BRIEF EXTERNAL CONSULTANT BIOGRAPHY

Maria de Lourdes Torres is a molecular biologist, professor, and researcher at the Universidad San Francisco de Quito, Ecuador. Beside her academic activities and research projects—mainly related to the conservation of relevant species of Ecuadorian biodiversity—she has over 20 years of experience in biosafety issues. As an advisor and consultant, she has developed policies and draft laws and regulations in the field of biosafety and food sovereignty. She has advised in the development of national biosafety frameworks and has evaluated and performed projects and activities in this field. Torres has been the official delegate for Ecuador on several occasions in the discussions of various topics within the Cartagena Protocol, Convention on Biological Diversity. For several years she has worked as regional advisor for Latin America within BCH capacity building projects. She also has expertise in the field of access to genetic resources and their regulations.

## ABOUT THE REVIEW

**Joint Review:** No

**Report Language(s):** English.

**Review Type:** Terminal Review

**Brief Description:**

This report is a management-led Terminal Review of a UNEP/GEF project implemented between 2013 and 2022. The project's overall development goal was to achieve an effective application of the Cartagena Protocol on Biosafety by implementing Panama's national biosafety framework and developing national capacities to properly handle Living Modified Organisms (LMO) to safeguard biodiversity. The review sought to assess project performance (in terms of relevance, effectiveness, and efficiency), and to determine the outcomes and impacts (actual and potential) derived from the project, including its sustainability. The review has two main objectives: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through results and lessons learned between UNEP's Regional Office for Latin America and the Caribbean (ROLAC) and the Ministry of Environment (MiAmbiente).

**Key words:** Living Modified Organisms, Biodiversity, National Biosafety Framework, Capacity Building, National Biosafety Commission.

**Primary data collection period:** September – January 2024

**Field mission dates:** 20–23 November 2023.

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## LIST OF ACRONYMS

|            |   |
|------------|---|
| ACP        | Panama Canal Authority  |
| ANA        | National Customs Authority                                      |
| ANAM       | National Environmental Authority                                |
| ARAP       | Aquatic Resources Authority of Panama                           |
| AUPSA      | Food Safety Authority of Panama                                 |
| BCH        | Biosafety Clearing-House  |
| CBD        | Convention on Biological Diversity                              |
| CEO        | Chief Executive Officer   |
| COP MOP    | Conference of the Parties serving as the Meeting of the Parties |
| CPB        | Cartagena Protocol on Biosafety                                 |
| EA         | Executing Agency  |
| EAs        | Expected Accomplishments  |
| EOU        | Evaluation Office of UNEP                                       |
| GEF        | Global Environment Facility                                     |
| GMO        | Genetically Modified Organism                                   |
| IA         | Implementing Agency   |
| ICA        | Internal Cooperation Agreement                                  |
| ICGEB      | International Centre for Genetic Engineering and Biotechnology  |
| ICGES      | Gorgas Memorial Institute of Tropical and Preventive Medicine   |
| IDIAP      | Agricultural Research Institute of Panama                       |
| INDICASAT  | Institute of Scientific Research and High Technology Services   |
| LMO        | Living Modified Organism  |
| MiAmbiente | Ministry of Environment   |
| MICI       | Ministry of Trade and Industry                                  |
| MIDA       | Ministry of Agriculture   |
| MINSA      | Ministry of Health  |
| MIRE       | Ministry of Foreign Affairs                                     |
| MOU        | Memorandums of Understanding                                    |

|          |  |
|----------|--|
| MTR      | Mid Term Review  |
| MTS      | Medium Term Strategy                                       |
| M&E plan | Monitoring & Evaluation plan                               |
| NBC      | National Biosafety Commission                              |
| NBF      | National Biosafety Framework                               |
| NBS      | National Biosafety System                                  |
| NBSAPs   | National Biodiversity Strategies and Action Plans          |
| NGO      | Non-Governmental Organizations                             |
| PCA      | Project Cooperation Agreement                              |
| PER      | Project Expenditure Reports                                |
| PIR      | Project Implementation Review                              |
| PMU      | Project Management Unit                                    |
| POW      | Programme of Work  |
| PDQ      | Project Design Quality                                     |
| ProDoc   | Project Document   |
| ROLAC    | Regional Office for Latin America and the Caribbean        |
| SC       | Steering Committee   |
| SDGs     | Sustainable Development Goals                              |
| SENACYT  | National Secretariat of Science and Technology             |
| SMART    | Specific, Measurable, Achievable, Relevant, and Time-bound |
| SP       | Sub-programmes   |
| SP2      | Strategic Priority 2                                       |
| SSFA     | Small Scale Funding Agreement                              |
| TE       | Terminal Evaluation  |
| TM       | Task Managers  |
| TOC      | Theory of Change   |
| ToRs     | Terms of Reference   |
| TR       | Terminal Review  |
| UN       | United Nations   |
| UNDAF    | United Nations Development Assistance Framework            |



|        |  |
|--------|--|
| UNEP   | United Nations Environment Programme                         |
| UNSDCF | United Nations Sustainable Development Cooperation Framework |
| USMA   | Universidad Santa María La Antigua                           |

## PROJECT IDENTIFICATION TABLE

Table 1. Project Summary<sup>1</sup>

|                                      |                     |   |   |                                |
|--------------------------------------|---------------------|---|---|--------------------------------|
| Identification Table                 |                     | GEF ID.:<br>3631  | Umoja no.:<br>GFL-5060-2716-4C45-SB-000687.41 |                                |
| Project Title                        |                     | Consolidation of national capacities for the full implementation of the Cartagena Protocol on Biosafety in Panama   |   |                                |
| Duration months                      | <i>Planned</i>      | 36 months   |   |                                |
|                                      | <i>Extension(s)</i> | Oct 2016 - Dec 2019 (38 months)   | Dec 2019 – Dec 2020 (12 months)               | Dec 2020 – Sep 2021 (9 months) |
| Division(s) Implementing the project |                     | UN Environment Programme<br>Ecosystems Division<br>GEF Biodiversity and Land Degradation Unit<br>Biodiversity and Land Branch   |   |                                |
| Name of co-implementing Agency       |                     | N/A   |   |                                |
| Executing Agency(ies)                |                     | Ministry of Environment (MIAMBIENTE) Directorate of Protected Areas and Biodiversity  |   |                                |
| Names of Other Project Partners      |                     | Aquatic Resources Authority of Panama (ARAP), Food Safety Authority of Panama (AUPSA), Institute of Scientific Research and High Technology Services (INDICASAT), Ministry of Agriculture (MIDA), Ministry of Health (MINSAs), National Secretariat of Science and Technology (SENACYT)           |   |                                |
| Project Type                         |                     | Medium Size Project   |   |                                |
| Project Scope                        |                     | National  |   |                                |
| Region                               |                     | Latin America and Caribbean   |   |                                |
| Countries                            |                     | Panama  |   |                                |
| Programme of Work                    |                     | Programme of Work for the Biennium 2020–2021<br>Subprogramme 3 – Healthy and productive ecosystems<br>Subprogramme 4 – Environmental governance   |   |                                |
| GEF Focal Area(s)                    |                     | Biodiversity  |   |                                |
| UNSDCF / UNDAF linkages              |                     | Panama UNSDCF 2021-2025<br>Cooperation Framework Result 3: By 2025, Panama is resilient and has implemented environmental policies on adaptation and mitigation to climate change, land degradation neutrality, protection of biodiversity, integrated environmental management and disaster risk |   |                                |

<sup>1</sup> Data from PIR FY2021

|   |  |                |
|---|--|----------------|
|   | reduction, and health crises, with a focus on human, gender, intercultural, lifelong and territorial rights.<br><br>Output 3.1: National and local institutions have put in motion policies, strategies or integrated plans and coordination mechanisms in favor of climate action, environmental health, the generation of enterprises, jobs and/or green and resilient inputs, and reduction of disaster risks and health crises.  |                |
| Link to relevant SDG target(s) and SDG indicator(s) | SDG 2 – Zero Hunger<br><br>Target 2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising.<br><br>Indicator 2.5.1 Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities.<br><br>Indicator 2.5.2 Proportion of local breeds classified as being at risk, not at risk or at unknown level of risk of extinction |                |
| GEF financing amount                                | USD 954,927  |                |
| Co-financing amount                                 | USD 1,000,000  |                |
| Date of CEO Endorsement                             | 11 August 2011   |                |
| Start of Implementation                             | 28 October 2013  |                |
| Date of first disbursement                          | 12 August 2014   |                |
| Total disbursement as of 30 June 2021               | USD 928,927  |                |
| Total expenditure as of December 2023               | USD 881,708.31   |                |
| Expected Mid-Term Review Date                       | April 2020   |                |
| Completion Date                                     | <i>Planned</i>   | October 2016   |
|   | <i>Revised</i>   | September 2021 |
| Expected Terminal Evaluation Date                   | 1 <sup>st</sup> quarter 2022   |                |
| Expected Financial Closure Date                     | 31 July 2024   |                |

### Project background

1. This document presents the report of the Terminal Review (TR) of the UN Environment Programme (UNEP)/Global Environmental Facility (GEF) project "Consolidation of National Capacities for the Full implementation of the Cartagena Protocol on Biosafety in Panama". The review was executed between September 2023 and January 2024 by a review consultant, Maria de Lourdes Torres. The project was approved by GEF in August 2011 and implemented between October 2013 and March 2022. UNEP provided technical guidance as the designated implementing agency (IA), while the Ministry of Environment (MiAmbiente) was the executing agency (EA) in charge of the technical part of the project, and the Regional Office for Latin America and the Caribbean (ROLAC) was the EA for the administrative and financial management. The total project budget was US\$1,954,927, of which US\$954,927 was GEF funding and US\$1,000,000 was the declared co-financing.
2. The objective of the project was to achieve an effective application of the Cartagena Protocol on Biosafety by implementing Panama's national biosafety regulatory framework and developing national capacities for the properly handling of Living Genetically Modified Organisms (LMO) to safeguard biodiversity. The project was implemented through five components, each having expected outcomes and outputs: (1) Implementation of legal and institutional frameworks to ensure compliance with the provisions of the Cartagena Protocol on Biosafety and the Convention on Biological Diversity; (2) Strengthening of capacities for risk analysis and management for Genetically Modified Organisms (GMO); (3) Creation of an integrated monitoring, inspection, and response system; (4) Generation of national biosafety information; and (5) Promotion of awareness, education, and public participation in matters related to biosafety. The project was approved in August 2011 and implemented between October 2013 and March 2022. UNEP provided technical guidance as the designated implementing agency (IA), while the Ministry of Environment (MiAmbiente) was the executing agency (EA) in charge of the technical part of the project and ROLAC was the EA for the administrative and financial management.

### This Review

3. In line with the UNEP Evaluation Policy and the Guidelines for GEF Agencies on Conducting Evaluations, this TR was undertaken at operational completion of the project to assess project performance (in terms of relevance, effectiveness, and efficiency) and determine outcomes and impacts (actual and potential) stemming from the Project, including their sustainability. The TR had two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning, and knowledge sharing through results and lessons learned among UNEP and Ministry of Environment Directorate of Protected Areas and Biodiversity (MiAmbiente) of Panama. The target audiences for the results of this review are UNEP staff related to GEF projects, the regional office, and the evaluation office. The key stakeholders of the project were the governmental institutions that conform the National Commission of Panama (NBC), which in turn are the main beneficiaries of the project, along with the institutions that are part of the Intersectoral Committees of Environment, Agriculture, and Health related to the handling of LMOs in Panama.
4. In accordance with the terms of reference for the TR, the review includes a review of the project context, project design quality, a stakeholders' analysis, a reconstructed Theory of Change (TOC) of the project, and the review framework.

## Key findings

5. According to the review, the project is of strategic relevance for Panama to achieve an effective application of the CPB through the development of capacities that will allow an adequate handling of LMOs, which will contribute to avoid risks to biodiversity, human health, and the national economy. Considering this country's high biodiversity and the fact that it is also the center of origin and domestication of several crops, there is an evident need for a national biosafety system to ensure the safe transfer, handling, and use of LMOs. The release of LMOs into the environment without adequate biosafety measures could pose a threat to native species and could have adverse effects on the environment, health, and socioeconomic aspects of this country. During the TR, a number of findings were identified which are described in detail in the main body of this report, but the main findings are outlined below.
  - The project's approach (environmental governance, biodiversity conservation, and national biosafety frameworks) was innovative and ensured good participation and appropriation from the main stakeholders, especially the members of the NBC.
  - The project's objectives and strategies are aligned with policies and plans of GEF, UNEP, and national public institutions.
  - The project was well designed, with good vertical and horizontal logic, indicators that did not meet SMART standards in all cases, a M&E plan with some limitations, good stakeholder inclusion, and some consideration of social and environmental impacts for project beneficiaries. Indicators were presented at the outcome level, which were aggregated to the objective level. Some outcomes did not fully reflect the activities to generate them.
  - Administrative changes in government institutions are an external factor that influenced project implementation. ANAM was transformed into a ministry: MiAmbiente. The project adapted strategically to this change, but this entailed delays in the project's inception and challenges for its administration.
  - The project contributed to strengthening the legal framework for biosafety in Panama, identified the institutions that need strengthening for the adequate handling of LMOs, and contributed to Panama's compliance with its obligations under the Cartagena Protocol and safeguarding the country's biodiversity (Outcome 1).
  - A series of capacity-building workshops carried out during the project strengthened institutional capacity to evaluate and manage LMOs in Panama (Outcome 2).
  - The project conducted training activities for competent authorities on how to establish an integrated monitoring, inspection, and response system to track authorized LMOs, enforce regulations, and respond to unintentional releases of LMOs. However, this system has not yet been established in Panama (Outcome 3).
  - The project established a website: <https://bioseguridad.gob.pa> to promote the exchange of information on biosafety at national and international level. The information on this website corresponds to that uploaded during the project. It has not been updated and does not yet serve as a tool for communication and management of LMOs among the institutions in charge of handling of these organisms (Outcome 4).
  - The project contributed to providing information on biosafety-related issues to the general public that may contribute to public awareness, education, and opinion on biosafety-related issues to some extent (Outcome 5).
  - The project had a serious delay in its implementation, caused by administrative problems that prevented a timely inception and later by the Covid 19 pandemic. As a result, the project had three extensions. In practice, this ensured moderately satisfactory completion of outputs and generation

- of outcomes. The project extensions did not affect funding and, overall, the project was cost-effective.
- The sustainability and replicability of many project results is dependent on continued financial resources. There are public and private institutions committed to providing continued technical support and monitoring, but ongoing funding is needed. There is insufficient consolidation of a financial strategy and corresponding mechanisms to ensure sustainability.
  - The institutional sustainability at the NBC level has been strengthened and constitutes a positive enabling environment for results sustenance. At the national level, although there is an expressed institutional interest to support the onward progress of impact at scale, coordination and collaboration between institutions is not optimal, due in part to the fact that biosafety is not a priority on the institutions' agenda. There is no staff dedicated exclusively to this topic and there are no specific institutional units/areas in charge of the appropriate handling of LMOs in Panama.
  - The project was managed professionally with high-quality, committed staff. Good teamwork. Initial hiring was delayed, but eventually resolved.
  - The project governance relied on a Project Steering Committee that was limited to NBC members and UNEP representative with occasional input from other biosafety-related institutions.
  - UNEP backstopping, particularly by the Task Manager, was effective and welcomed by the project team and partner institutions.
  - Participation and cooperation with key stakeholders were maintained throughout the project's implementation. Inclusion of other partners at the national level was a challenge.
  - The project did not have a clear gender strategy, but in practice it did involve and empower women and youth.
6. The report answers the four strategic questions identified for this review, analyzes how the project supported the effective implementation of the Cartagena Protocol on Biosafety, the progress made in implementing the national biosafety regulatory framework, and the national capacities developed for adequately managing LMOs to safeguard Panama's biodiversity. It also describes how the project's results have contributed to Panama's continued management of biosafety in the face of new developments in the field of modern biotechnology. It is also noted how the project adapted to the Covid 19 pandemic in order to achieve its results without serious repercussions. The report also discusses the extent to which the recommendations of the MTR were addressed until the end of the project.

## Conclusions

7. Based on the findings from this review, the overall project performance is rated as "Moderately Satisfactory" (See Table 2). Despite some weaknesses, the project was conceptually and strategically well designed. The project's approach (environmental governance, biodiversity conservation, and national biosafety frameworks) was innovative and ensured good participation and ownership by local stakeholders. It produced an interesting number of outputs that formed the basis for a moderately successful achievement of the outcomes, resulting in a positive impact on the strengthening of Panama's national biosafety system for the proper handling of LMOs. Although the current context of biosafety in this country needs to be analyzed, there is an enabling environment for replication and scaling. The sustainability of the project's outcomes is rated as "Moderately Likely". In general, the project team achieved good participation of key stakeholders, but the participation of other national stakeholder institutions was lower. Project implementation was moderately efficient; there were delays at the project's inception due to administrative constraints, and other delays throughout project's execution due to the external context. This resulted in project extensions, which ultimately

contributed to consolidate project outcomes. The project was managed by a professional and committed team who worked well to achieve the outcomes, although some results were different from those expected.

**Table 2: Summary of project findings and ratings**

| <b>Criterion</b>                          | <b>Rating</b> |
|---|---------------|
| <b>Strategic Relevance</b>                | <b>S</b>      |
| <b>Quality of Project Design</b>          | <b>MS</b>     |
| <b>Nature of External Context</b>         | <b>MU</b>     |
| <b>Effectiveness</b>                      | <b>MS</b>     |
| <b>Financial Management</b>               | <b>MS</b>     |
| <b>Efficiency</b>                         | <b>MS</b>     |
| <b>Monitoring and Reporting</b>           | <b>MS</b>     |
| <b>Sustainability</b>                     | <b>ML</b>     |
| <b>Factors Affecting Performance</b>      | <b>MS</b>     |
| <b>Overall Project Performance Rating</b> | <b>MS</b>     |

8. The main conclusions of the review are:

- The project was relevant for Panama to comply with its obligations under the CPB and strengthen Panama's national biosafety regulatory framework. It was consistent with the plans and strategies of the GEF, UNEP, CBD and national public institutions.
- Notwithstanding some weaknesses, the project was well designed, with good vertical and horizontal logic, inclusion of key stakeholders, and financial and budgetary planning. Several indicators did not meet SMART standards, social safeguards were not sufficiently developed, and the M&E plan had some limitations.
- The project had a duration of more than 10 years from approval to full closure, which implied challenges in its execution and adjustments in planning. There was a significant delay in its inception due to the transformation of ANAM into MiAmbiente, which posed major challenges in the administrative management of the project. The permanent commitment of MiAmbiente, the member institutions of the NBC, and sectoral committees, as well as the support of ROLAC, were vital to bring the project forward in spite of these inconveniences.
- The project generated a number of diverse results in a moderately satisfactory manner. Some of the outputs were generated differently as planned, which was a result of adequate adaptive management.
- Regarding the outputs achieved, it is noteworthy to emphasize that some of them were partially achieved and that they should be completed for their full functionality and impact (versions of manuals, guidelines, and flowcharts need to reach the final versions and be adopted by the different national institutions).
- The outcomes of the project were achieved with different levels of impact. The strongest outcome was the strengthening of institutional capacities in biosafety through the capacity-building activities that were carried out on evaluation, handling, and monitoring of LMOs.
- There is a favorable environment for the consolidation of the project's results and future impact generation because of the relevance of biosafety to ensure the appropriate use of modern biotechnology, which is in constant development. Considering that Panama is a country with high

biodiversity and sustainable development needs, the implementation of modern but environmentally friendly technology is mandatory.

- The project effectively managed to include mainly the national institutions that are part of the NBC and intersectoral committees of agriculture, environment, and health in the project activities, which was key to generate results, create ownership, and provide institutional sustainability. The participation and inclusion of other public institutions and other sectors such as academia, the private sector, and NGOs was not successful during the project's implementation.

## Lessons Learned

9. Lesson 1. The delay between the approval of a project and the inception of its activities may have an impact on the established objectives, outcomes, and outputs because the delay may represent changes in the national and international environment.
10. Lesson 2. Different SMART indicators are needed along the impact pathway of the project (output, outcome, and impact).
11. Lesson 3. Optimal stakeholder participation is essential to generate the planned outcomes and meet project goal.
12. Lesson 4. The outcomes and outputs planned to be achieved in a project should be directly related to the project's possibilities and not depend on a political decision external to the project.
13. Lesson 5. Capacity-building activities enable the achievement of products and results, especially when a project involves technological development that requires regulation for its appropriate application.
14. Lesson 6. Access to high-quality information, and education and public awareness campaigns are key elements to promote risk-assessment processes and to foster a well-informed population on biosafety issues.
15. Lesson 7. In the absence of a clear application of a gender approach, opportunities to strategically plan and monitor the participation and empowerment of women, youth, and disadvantaged groups are lost.

## Recommendations

16. Recommendation 1. *To MiAmbiente*: As the EA in charge of the technical part of this project, MiAmbiente plays a crucial role in institutional sustainability. Considering that the project succeeded in creating a space for dialogue and exchange between key stakeholders (members of the NBC), it is recommended that MiAmbiente continue to actively participate in the NBC meetings and promote the implementation of the project's output to contribute to the strengthening of the biosafety procedures related to the proper handling of LMOs.
17. Recommendation 2. *To MiAmbiente*: One of the key elements for correct management and decision-making in the field of biosafety is access to information. This is a fundamental pillar within the CPB that establishes the BCH and urges the countries' parties to work on this matter. Since this project is framed within this international agreement and its objective was related to the effective application of the CPB, it is recommended that MiAmbiente make the necessary efforts to activate and update the information on the web portal developed by the project in order to promote access to information for decision-makers and institutions in charge of risk assessments, and to contribute to the knowledge on biosafety in the general public.
18. Recommendation 3. *To UNEP*: For the specific execution of this project, and due to the challenges presented for its administrative and financial management, the strategy adopted to overcome this situation was to select ROLAC as the EA for its administrative management. This implied an internal EA for the project. It is recommended that UNEP analyze this experience and see if this model is recommendable or not for the execution of future projects.



19. Recommendation 4: To UNEP: This project is framed within the implementation of an international agreement: the Cartagena Protocol on Biosafety to the Convention on Biological Diversity. The different GEF projects implemented through UNEP have strengthened the capacities of countries to respond to their obligations within this protocol and have supported countries to have the tools needed to appropriately manage biosafety related to LMOs. Modern biotechnology continues to develop and present regulatory challenges for its proper application. In this regard, and due to the implications that this matter has for biodiversity conservation, sustainable use, and health and socioeconomic aspects, UNEP may wish to talk with the Secretariat of the CBD to learn about the needs or challenges that countries continue to face in dealing with these technological developments and to explore new initiatives to support them.

## Validation

The report has been subject to an independent validation exercise performed by UNEP's Evaluation Office. The performance ratings for the UNEP-GEF project " Consolidation of National Capacities for the Full implementation of the Cartagena Protocol on Biosafety in Panama", set out in the Conclusions and Recommendations section, have not been adjusted as a result. The overall project performance is validated at the '**Moderately Satisfactory**' level. Moreover, the Evaluation Office has found the overall quality of the report to be '**Satisfactory**' (see Annex XII).

## I. INTRODUCTION

20. This document presents the Terminal Review (TR) report of the UN Environment Programme (UNEP)/Global Environment Facility (GEF) project "Consolidation of national capacities for full implementation of the Cartagena Protocol on Biosafety in Panama" (GEF ID 3631) (hereafter "GEF Panama" or "the Project"). The review covered the implementation during the entire project execution period (October 2013 to September 2021) and covered all project activities. The total project budget, as presented in the project document (Prodoc), was USD 1,954,927, of which the GEF contributed USD 954,927 (49%). The planned co-financing was USD 1,000,000, of which USD 200,000 was expected to be in cash (20%).
21. The GEF designated UN Environment Programme (UNEP) as the Implementing Agency (IA) for this Project. Initially, the National Environmental Authority (ANAM), and later the Ministry of Environment (Mi Ambiente), were the Executing Agencies (EA) of the Project together with UNEP's Regional Office for Latin America and the Caribbean (ROLAC). The project was approved by the GEF on August 11, 2011, and formally started on October 28, 2013. This project had three extensions during its execution (Oct 2016–Dec 2019 (38 months), Dec 2019–Dec 2020 (12 months), Dec 2020–Sep 2021 (9 months)).
22. In line with the UN Environment Programme Evaluation Policy<sup>2</sup> and the GEF Guidelines Conducting Program Evaluation<sup>3</sup>, this Terminal Review (TR) was undertaken upon technical completion of the project to assess its performance (in terms of relevance, effectiveness, and efficiency) and to determine the outcomes and impacts (actual and potential) stemming from the Project, including their sustainability. The TR had two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote learning, feedback, and knowledge sharing through the results and lessons learned among the UN Environment Programme, the GEF, the National Executing Agency, and the main national stakeholders. Therefore, this review identified lessons of operational relevance for future initiatives within this topic. In April 2020, the project underwent a MTR—referred to several times in this TR—to assess the extent to which the recommendations raised were implemented and contributed to the execution and completion of the project.
23. A key aim of the TR is to encourage reflection and learning by UNEP staff and key project stakeholders. Therefore, the target audiences for the results of this review are UNEP staff related to GEF projects, the regional office, and the evaluation office. Among project stakeholders are the national institutions conforming the National Biosafety Commission of Panama and the institutions that conform the inter-sectoral technical committees. Others include project partners (research partners, service providers) and beneficiaries (organizations and institutions related to the safe management and use of LMOs in Panama). Most recommendations to ensure the sustainability of project results and progress towards long-term impacts target the responsible governmental agencies at different levels, as well as local beneficiaries. Finally, the executing agency and other partners in the implementation will benefit from the results of this review for their future initiatives.
24. The review was executed between September 2023 and January 2024 by an external review consultant, Maria de Lourdes Torres (hereafter referred to as "the reviewer"). In October 2023, an inception report was developed, containing a thorough review of the project context and its project design quality, the review framework, and a tentative review schedule<sup>4</sup>. During inception, initial conversations were held with the MiAmbiente Project Management Team and the UNEP Task Manager

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<sup>2</sup> <https://wedocs.unep.org/handle/20.500.11822/38891>

<sup>3</sup> [https://www.thegef.org/sites/default/files/documents/2022-05/EN\\_GEF\\_E\\_C62\\_Inf.02\\_GEF\\_Program\\_Evaluation\\_Guidelines\\_May23\\_2022.pdf](https://www.thegef.org/sites/default/files/documents/2022-05/EN_GEF_E_C62_Inf.02_GEF_Program_Evaluation_Guidelines_May23_2022.pdf)

<sup>4</sup> The Inception report is available at the UN Environment Evaluation Office

to plan the data collection for the review. Fieldwork for data collection was conducted from 20-23 November 2023 in Panama, with additional interviews (online) between October and December 2023.

## II. REVIEW METHODS

25. The methodology that was applied to this TR consisted of a combination of methods and tools to collect the qualitative and quantitative data necessary to answer the review questions in an objective, evidence-based manner. The methods used include, among others, the review of available project documents where quantitative data could be collected (i.e. how many workshops were carried out), and interviews in which qualitative data could be collected (i.e. the level of satisfaction of the people who participated in the project activities). The TR included seven phases: inception, document review, stakeholder interviews, field observations, information processing, elaboration of findings, conclusions and recommendations, and report elaboration.

- *Inception stage.* During inception, the reviewer focused on becoming familiar with the project, planning the review process, and developing the exact review questions and the present report. This included an initial review of the project design documents, the MTR report, and Project Implementation Review (PIR). Initial conversations were held with the executing and implementing agencies (MiAmbiente, ROLAC, and UNEP) about the scope and logistics of the review. An inception report was presented before the country visit.
- *Revision of Documents.* The reviewer undertook a thorough review of the available documentation. The EA (MiAmbiente) provided all project-related documents and the reviewer complemented this with third-party documents. The various types of documents provided information for different review criteria and questions. The documents that were consulted include the following (see Annex V for a complete list):
  - Documents posted in the UN Environment Programme platform ANUBIS—particularly the Project Document and its Annexes, Project Extension documents, Project Budget and revisions, Project reports such as six-monthly progress and financial reports, annual Project Implementation Review (PIR) and Project Final reports, and the report of the Mid-Term Review (MTR) of the project, among others.
- *Stakeholder Interviews.* The reviewer made a series of semi-structured interviews with a representative number of stakeholders. During inception, the EA delivered a list of 10 stakeholders. This list was revised and complemented in agreement with the EA and—based on this—a final list was made aimed at establishing a complete list of key informants (project coordinators, IA, National Biosafety Commission (NBC) members, sectoral committee members, and research institutes) and a representation of all stakeholders.

An in-country visit included meetings with relevant project participants in Panama City. Meetings were held with the project's management team, the members of the NBC of the following institutions: Ministry of Agricultural Development (MIDA), the Ministry of Health (MINSAs), the Ministry of Foreign Affairs (MIRE), the Ministry of Commerce and Industries (MICI), and the National Secretariat of Science, Technology, and Innovation (SENACYT), the members of the intersectoral committees including the Aquatic Resources Authority of Panama (ARAP), MINSAs, and MIDA, research institutes, and others. This visit took place from November 20 to 23, 2023.

In total, 26 people were interviewed (14 women). These consisted of (see Annex III for full list):

- UN Environment Programme Task Managers (TM)
- Project management team (one-on-one and in group)
- UN Environment Programme Assistant based in Panama
- Project main stakeholders: NBC members (MIDA, MINSAs, MIRE, MICI, and SENACYT), who were interviewed individually or in groups within each institution.
- Other stakeholders and/or people from other institutions related in some way to the management or use of LMOs in Panama.

The review interviews were based on questions drawn from the criteria that are listed in the ToRs. The reviewer streamlined the interviews by clustering questions around the fundamental issues of interest. Throughout this review process, and in the compilation of the Final Review Report, efforts have been made to represent the views of all interviewees. Data were collected with respect for ethics and human rights issues. All other information was gathered after prior informed consent from the interviewees. All discussions remained anonymous, and all information was collected according to the UN Standards of Conduct. It is important to mention that due to the scope of the project, which is quite technical and focused mainly on regulatory and capacity building issues, the methods to include the voices/experiences of different and potentially excluded groups (e.g. vulnerable, gender, marginalized) were quite limited during the time of the TR. However, when carrying out the interviews, an attempt was made to maintain gender balance and to collect information on whether there were excluded groups during the project's execution.

- *Field observations.* In the case of a biosafety-related project review such as this terminal review, field observations are focused on conversations with the people involved in the risk analysis and management processes in cases related to the handling and management of LMOs. Therefore, the visit to Panama was relevant to analyze various indicators of project progress and performance. Discussions with local partners were fundamental to collecting information on the project. It was unfortunate that during the visit to Panama, the country was going through a period of national strikes, which in some cases made it impossible to visit certain institutions and the interviews had to be conducted online even though the reviewer was in Panama City, but the roads were closed on some days. However, the excellent attitude of the interviewees helped to overcome this limitation and the online conversations were very informative, as were the interviews that could be performed in person.
- *Processing and Validation of Data.* Once the data was gathered from the document review and stakeholder interviews were completed, this information was organized according to the criteria and review questions. The in-country visit was followed by a triangulation of findings collected from the desk review, and interviews with the main national stakeholders, the project coordinators, and the UNEP Task Managers. Information that supported indicators was compared with the project's reporting on these indicators, to validate the reported information. In the cases where the data from certain interviews demonstrated a trend of coincidence and complementarity, this was used directly to support findings. In the cases where this did not coincide, information was validated through a process of corroboration (with the MiAmbiente and national agencies) or triangulation (with additional sources of information).
- *Elaboration of Findings, Conclusions and Recommendations.* Based on the data compiled during the information-gathering and -processing phases, the reviewer identified preliminary findings. Each finding was a partial answer to the review questions and is strictly evidence-based (data found during information gathering). On December 7, 2023, the initial findings were presented to the TM. Based on the feedback received, the reviewer refined the final findings and the conclusions of the review. The conclusions sustain the rating of review criteria according to the scale mentioned in the Terms of Reference (TOR). As final elements of the review, and referring to findings and conclusions, the reviewer identified a series of lessons and recommendations. The lessons learned during the execution of the project are good (or not-so-good) practices in the design, implementation, governance or in the context of the project that are worth being considered in similar future projects. The recommendations are directed to agencies of implementation and execution and refer mainly to future activities or recommendable practices to increase the sustainability of the project outcomes and the probability of achieving the impact or replication in another geographical area or at an increased scale.
- *Report Development and Revision.* In line with the ToR for this review, the reviewer submitted a draft report to the UNEP task manager, who reviewed it and shared the cleared draft report with

the Project Manager and Task Manager, for them to identify any factual errors or substantive omissions. Comments were shared with the reviewer for her response and a subsequent draft was shared with key stakeholders for any further comments and/or corrections of facts.

26. There were few limitations to the implementation of this TR. The IA and EA have been collaborative and transparent in terms of providing the reviewer with all required information in a timely manner and all stakeholders have been open to being interviewed. Three (minor) limitations were identified. (i) The project was originally approved in 2011, but in reality the activities were carried out from 2016 due to a number of administrative constraints, described in detail in this report. The terminal review was conducted in the fourth trimester of 2023, while the project activities themselves ended in 2021; therefore, this review was carried out two years after the end of the Project. Although the time elapsed helped the reviewer to understand the extent to which the outcomes and outputs had been consolidated and gave her an idea of the project's sustainability, it posed some challenges in terms of logistical organization and contact with persons who had been involved in the project over this long period of time. (ii) During the project there were four different UNEP TMs, and despite the willingness of each of them to contribute with information on the project, an effort was needed to consolidate the information provided by them in relation to the project execution, mainly considering that after they left their TM functions, they did not have any additional information on the project. This could be overcome because it was possible to corroborate the data provided by the different TMs with the person in charge of this project most of the time in MiAmbiente (EA). (iii) Likewise, there were two coordinators during the project's duration. While it is true that each of them was willing to provide information on the activities carried out and contribute to the analysis of the outcomes and outputs, it was noted that there was an information gap when the first coordinator left the project because he devoted himself to other activities without following up on the project. The reviewer was able to join the pieces of information of the two coordinators but thinks that these transitions during the execution of a project are a limitation. It is important to note that, although the duration of the project was much longer than initially thought, and that there were persons who changed throughout the execution period, key persons in the EA and in relevant national institutions were involved all along, which helped to build a history of the project over time and to have a clearer idea of the outcomes and outputs achieved and the project's impact.

### III. THE PROJECT

#### A. Context

27. Panama is a medium to high-level income country acting as a bridge between North and South America, located in the middle of the Atlantic and Pacific Oceans. About 40% of its population is poor or very poor. It is also one of the countries with the highest biological diversity in the world. Some data reflecting this rich biodiversity: Panama is home to more than 10,400 plant species (1,300 endemic and 600 endangered), 2,949 vertebrate species (more than 100 are endangered and 121 are endemic), 10% of the world's bird species are found in Panama, and more than 200 species of amphibians, of which almost 50 species are threatened, many of them critically endangered in Panama and neighboring Costa Rica. These include numerous species of small, colorful tree frogs and poison dart frogs, which have become a symbol of biodiversity.
28. For centuries, agriculture was the dominant economic activity for most of Panama's population; after construction of the canal, however, agriculture declined. Panamanian agriculture mainly supplies the domestic market, though it has some key export crops: bananas as the leading export item, followed by sugar, coffee, and pineapples, among others. Panama is self-sufficient in bananas, sugar, rice, corn (also used for poultry feed), and coffee but must import large quantities of other foods. Typical food imports are wheat and wheat products because climatic conditions preclude wheat cultivation. Panama's land area totals approximately 7.7 million hectares, of which forests account for 4.1 million hectares, followed by pastureland and permanently cultivated field. Nearly all the originally forested land is currently cultivated and pastureland, the result of a large amount of virgin tropical forest being opened up through slash-and-burn practices.
29. Panama, like other countries of the Mesoamerican region, is a center of origin and improvement of crops such as: corn, bean, potato, tomato, green pepper, pumpkins, manioc, yam, sweet potato, cotton, tobacco, pineapple, cocoa, rubber, pepper, and many other tubers, roots, cereals, and fruits. These crops are currently part of the diet and food habits of millions of inhabitants in the region. In this context, it is relevant that Panama has a national biosafety system that ensures the safe transfer, handling, and use of LMOs. The release of LMOs into the environment without adequate biosafety measures could be a threat to native species, since it is impossible to contain the natural crossing between related plants, mainly through pollen, which can fertilize sexually compatible plants in a given area. In addition, aquatic ecosystems may be vulnerable to productive activities with LMOs if they are not carried out under appropriate biosafety standards. Any unapproved release of a LMO into the environment—even a small one—can have an impact on biodiversity, human health, and the local and national economies.
30. According to the information that has been compiled, Panamanian institutions related to biosafety have had to carry out risk analyses to guide the decision making of competent authorities on applications submitted to carry out activities with LMOs. Some examples are the applications for the introduction of genetically modified corn, salmon, and pineapple. Therefore, the implementation of the project in relation to strengthening the capacity to assess LMOs is needed so that the country has the technical tools to carry out these analyses.
31. Panama ratified the Convention on Biological Diversity in 1995 (Law N° 2 of January 12, 1995), and the Cartagena Protocol on Biosafety in 2001 (Law N° 72 of December 26, 2001), and Law No. 48 of August 8, 2002 created the National Biosafety Commission for Living Modified Organisms. This law also defines the institutional competencies and establishes the formation of sectoral committees in the agricultural, environmental, and public health sectors. This is the country's legal basis for managing the adequate handling of LMOs.
32. Panama is a country that, since ratifying the Cartagena Protocol, has worked to ensure that the country has institutions, regulations, and actions that allow it to manage Living Genetically Modified Organisms (LMOs) adequately. In this regard, it is important to mention that Panama conducted two previous

projects that provide the baseline for the project that is the subject of this terminal review. The first was the UNEP-GEF project: “Development of a National Regulating Biosafety Framework for Panama” (known as the NBF Development project) and the second was the UNEP-GEF project: “Building capacity for the Effective Participation in the Biosafety Clearing-House (BCH)”.

33. According to the Project Document (ProDoc), the project: “Consolidation of national capacities for the full implementation of the Cartagena Protocol on Biosafety in Panama” (GEF ID 3631) aligns within national mandates for conservation of biodiversity, sustainable development, and safe use of LMOs, aiming to create conditions leading to the adequate use of native genetic resources, the generation of environmental information, the modernization of customs, and the strengthening of environmental controls and supervision.
34. Given Panama's interest in generating economic benefits from increased commercial activity, bioprospecting, and the possibility of introducing LMOs in a regulated manner, the Panamanian government decided to carry out this project to ensure that any activities within the country involving LMOs would occur within a framework that contributes to safeguarding biodiversity, and human and animal health, as well as ethical, social, and cultural values.
35. In the light of the above, this project aimed to achieve the effective application of the Cartagena Protocol on Biosafety (CPB) by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle LMOs for the safeguard of biodiversity. It specifically attempted to support key priorities for reducing adverse effects to biodiversity and human health, and negative socioeconomic impacts, as well as fostering sustainable environmental development.
36. The current project is within the GEF's Biodiversity Focal Area, and falls under Strategic Programme-6 but is also related to Strategic Programme-1 through: (i) development of new capacities within the former National Environmental Authority (ANAM)—now the Ministry of the Environment (MiAmbiente)—for coordination, monitoring, and supervision of Biosafety activities in the use of LMO; (ii) establishment of criteria for activities with LMO; (iii) establishment of capacity for long-term sustainability for biosafety; (iv) public/private capacity building; and (v) increase of MiAmbiente's income base for monitoring and management of LMO, as well as alternative financial mechanisms (e.g., research).
37. In this sense, this project attempted to contribute to the Government of Panama's efforts to achieve one of the Millennium Development Goals: ensure environmental sustainability through the integration of sustainable development into country policies and programmes, and reverse the loss of natural resources, specifically globally important biodiversity. Additionally, the project offered support for biodiversity conservation, avoiding the inadequate use of LMO, as well as offering alternatives that generate environmental benefits at the local, national, and global levels, and changes in soil use practices that reduce threats and overexploitation of critical ecosystems, including buffer zones and ecological corridors of global importance. The project aimed to reduce risks to biodiversity posed by LMOs and considerably increase global benefits by allowing Panama to fully exert its rights and obligations under the CPB.

## **B. Objectives and components**

38. The Project Objective is to achieve an effective application of the Cartagena Protocol on Biosafety by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle Living Genetically Modified Organisms (LMO) to safeguard biodiversity. The project was implemented through five components, each having expected outcomes and outputs (Table 3).



**Table 3: Project Components, Outputs and Outcomes**

| Component   | Outcomes  | Outputs  |
|---|---|--|
| <p>1. Implementation of the biosafety legal and institutional frameworks for complying with the Cartagena Protocol and the CBD.</p> | <p>1.1. The basis for completing and implementing the legal framework exists, and areas requiring institutional strengthening are identified and addressed.</p> <p>1.2. Panama's compliance with the Cartagena Protocol, including participation in the BCH, is coordinated, visible and integrated within competent authorities.</p> | <p>1.1.1. Draft regulations specific for confined use, environmental release, and production with LMOs, as well as procedures for dealing with cases of liability and redress, review of decisions, and LMOs in transit.</p> <p>1.1.2. Agreed administrative processes between competent authorities with accompanying manuals</p> <p>1.2.1. Updated biosafety information posted on the BCH to comply with Art. 20 (BCH) and Art. 23 (Public Awareness and Participation)</p> <p>1.2.2. Timely and coordinated responses to notifications and requirements from CPB Secretariat</p> |
| <p>2. Reinforcement of capacities for LMO risk assessment and risk management.</p>  | <p>2. Strengthened institutional capacity to evaluate and manage LMOs in different activities.</p>  | <p>2.1. Technical personnel designated and trained to handle LMO cases, information, and applications.</p> <p>2.2. Risk assessment protocols and decision-making criteria for different activities that use LMOs.</p> <p>2.3. Legal agreements (contracts or memorandums of understanding (MOU)) to advise competent authorities.</p> <p>2.4. Mock decisions for different LMO types with accompanying assessment of gaps and needs (eg. capacity gaps/training needs, procedural constraints, registry/information needs, etc.) and Action Plan to address them.</p>                |
| <p>3. Creation of an integrated monitoring, inspection and response system.</p>   | <p>3.1. Competent authorities have improved their ability to track authorized LMOs, to enforce regulations, and to respond to unintentional releases of LMOs.</p>   | <p>3.1. Initial diagnosis and analysis of specific LMO monitoring capacity gaps and needs.</p> <p>3.2. Institutional mechanisms and budgets for LMO inspection, tracking, and monitoring.</p> <p>3.3. Draft guidelines to be applied in cases of unintentional or illegal releases of LMOs.</p> <p>3.4. Personnel trained to detect and monitor LMOs.</p>  |
| <p>4. Generation of national information on biosafety.</p>  | <p>4. Access to Information on LMOs and how they should be managed provides regulators and stakeholders with the information they need to perform their functions.</p>  | <p>4.1. Tools available for systematized and secure handling of LMO data.</p> <p>4.2. Official information on LMOs of relevance to biosafety decision making.</p> <p>4.3. Outreach Materials and Publications</p>  |

|  |   |  |
|--|---|--|
| <p>5. Promotion of public awareness, education, and public participation in matters relating to biosafety.</p> | <p>5.1. Public awareness, education, and participation in biosafety-related issues are strengthened, which improves the quality of the debate on biosafety.</p> | <p>5.1. Annual biosafety outreach program and its implementation.</p> <p>5.2. Alliances and partnerships to access biosafety training courses, and to support biosafety outreach activities.</p> <p>5.3. Tools to facilitate public participation in biosafety and biotechnology activities.</p> |
|--|---|--|

39. Component 1 focuses on filling the gaps in the institutional and legal frameworks and includes the necessary coordination and integration of biosafety in support of decision-making processes and application of law.
40. Component 2 covers the need to increase the capacity for risk analysis and management, as pre-approval and post-release issues, with emphasis on informing decision-making processes.
41. Component 3 is focused on management of monitoring and inspections of areas related to post release or post approval; includes customs monitoring and emergency response, and novel areas in the biosafety framework.
42. Component 4 aims to generate an updated biosafety information system on a national level, focused on transparency and accountability, that reflects the status of national biosafety.
43. Component 5 is focused on stimulating public participation through creation of public awareness and informative communication.
44. It is worth noting that this project was developed during GEF-5 when there were no GEF core indicator targets. As such, the reviewer identified the following GEF-7 core indicators in a retrospective manner:
  - Core Indicator 3. Area of land restored.
  - Core indicator 4. Area of landscapes under improved practices (hectares; excluding protected areas).
  - Core indicator 5. Area of marine habitat under improved practices to benefit biodiversity (hectares; excluding protected areas)
  - Core Indicator 11. Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment.
45. It is important to note that retrospective estimation of the GEF-7 core indicators that apply to a biosafety project is challenging. However, considering the implications that the introduction of LMOs may have on the environment, the reviewer has chosen indicators that could be related to agriculture and aquaculture issues that have a relationship with the conservation of biodiversity and sustainable use of biological resources. In addition, although the project reports provide beneficiary figures, these data are not disaggregated by gender.

### C. Stakeholders

46. The ProDoc included a clear stakeholder analysis (section 2.5), which provides an overview of different institutions that are related to—and would collaborate with—the Project. The list of stakeholders presented is comprehensive and focuses on project execution rather than the impact or benefit of the project to stakeholders. The present review includes an analysis of the participation and involvement of the stakeholders identified in the ProDoc, and an explanation of the stakeholders who did not participate or whose engagement was not achieved.
47. The list below presents the main stakeholders related to the project:
  - Ministry of Environment (MiAmbiente)

- Ministry of Health (MINSA)
  - Ministry of Foreign Affairs (MIRE)
  - Ministry of Agricultural Development (MIDA)
  - Ministry of Trade and Industry (MICI)
  - Aquatic Resources Authority of Panama (ARAP)
  - National Secretary of Science, Technology and Innovation (SENACYT)
48. The above-mentioned institutions are those mandated to supervise, manage, or regulate health, food, and environmental aspects that are directly related to biosafety and LMOs. These main stakeholders are those described in Law 48 of 2002, which establishes the inter-institutional competences and coordination for the implementation of the CPB and considers the specific expertise of each entity.
49. The ProDoc also mentioned the Panamanian Food Safety Authority (AUPSA) as a main stakeholder for the execution of this project; however, this institution no longer exists in Panama and was replaced by the Panamanian Food Agency (APA) (Law 206 of March 2021). This agency has different functions that are no longer related to food safety, and therefore its mandate no longer includes the analysis of LMOs.
50. The stakeholders originally identified by the project were relevant to its implementation from inception to completion. As the project was focused mainly on the policy and regulatory aspects of the implementation of the CPB, these stakeholders were relevant throughout the duration of the project.
51. Some other institutions, like the Agricultural Research Institute of Panama (IDIAP), the Gorgas Memorial Institute of Tropical and Preventive Medicine (ICGES), and the Institute for the Development of Innovation, Science, and Technology (INDICASAT), are mentioned in the ProDoc document as potential stakeholders of the project. The Panama Canal Authority (ACP) and the National Customs Authority (ANA) are authorities whose incorporation in the project is relevant, especially to address information exchange and LMO monitoring. According to the information obtained during this RT, only Gorgas and IDIAP took part in project activities. The rest of the institutions mentioned were not relevant actors in the project. Some personnel from institutions such as the customs participated in certain capacity-building workshops, but neither the ANA nor the ACP were engaged in the project. All the interviewees during the RT agreed that it is very difficult to involve these institutions because their mandate does not include functions related to the control and handling of LMOs.
52. There is not a clear description of the role of non-governmental organizations (NGOs) in the ProDoc, and the private sector is mentioned in a general way for being interested in business, cultivation, or distribution of genetically modified organisms (GMO) in Panama. The role of universities is mentioned as relevant actors in the implementation of the CPB, among which the following are highlighted: Universidad Santa María La Antigua (USMA), University of Panama, and University of San Martín. It was found during this review that there was no interest from NGOs to participate in activities related to biosafety of LMOs, and likewise there was no engagement of the private sector. Regarding the participation of the academic sector, there were participants from the University of Panama in project capacity-building activities, but they were not key stakeholders throughout the project.
53. It is relevant to mention organizations that were not included in the project design but were key to carrying out activities during the execution of the project, among others: ROLAC for its participation as EA together with MiAmbiente, which was in charge of all project management, the International Centre for Genetic Engineering and Biotechnology (ICGEB), which carried out several relevant capacity building activities, and Albatros media, which was in charge of the public awareness campaign, a key activity for the development of the project.
54. The present TR recognized the different groups of stakeholders and paid particular attention to (a) the level of involvement of the different agencies involved in biosafety and LMO regulation, and (b) the communication between the project, its stakeholders (participating in implementation), and the beneficiaries.

## **D. Project implementation structure and partners**

55. Before describing the project's implementation structure, it is important to mention that there were two relevant changes between the project design and its execution. The ProDoc described ANAM as the EA, which was designated by the central Government after consultation with the GEF and CPB Focal Point, but at the time of the project's implementation this entity became the Ministry of Environment (MiAmbiente). MiAmbiente together with ROLAC were actually the EA of this project. ROLAC's participation in the project as EA was not foreseen during the design phase of the project, but rather a Project Administration Unit within the Direction of Protected Areas and Wildlife (DAPVS) from ANAM. However, due to the institutional change and transformation of ANAM into a Ministry, the DAPVS could no longer manage funds and therefore, the most viable solution found was that ROLAC would be part of the EA and would manage the administrative part and the funds.
56. UNEP, as GEF implementing agency (IA), was in charge of supervision, monitoring, and evaluation for the project. UNEP had overall responsibility for the implementation of the project and project oversight. During the entire implementation of the project, there were four project Task Managers at UNEP, and they represented the organization in the project's Steering Committee.
57. Project executing agencies (EA): ROLAC was the co-executing agency in charge of project fund administration and accounting, contracting the project coordinator, the different consultants, and the institutions that developed several of the project's activities, and providing additional administrative support. MiAmbiente, as the other co-executing agency of the project, was in charge of technical support throughout the project and coordinated project activities.
58. In the implementation of the project, several governmental agencies were involved in activities, particularly the Ministry of Environment (MiAmbiente), Ministry of Health (MINSa), Ministry of Foreign Affairs (MIRE), Ministry of Agricultural Development (MIDA), Ministry of Trade and Industry (MICI), Aquatic Resources Authority of Panama (ARAP), and the National Secretary of Science, Technology, and Innovation (SENACYT).
59. A Steering Committee (SC) was in practice composed of the members of the National Biosafety Commission, mainly from the following institutions: Ministry of Environment (MiAmbiente), Ministry of Health (MINSa), Ministry of Foreign Affairs (MIRE), Ministry of Agricultural Development (MIDA), Ministry of Trade and Industry (MICI), Aquatic Resources Authority of Panama (ARAP), and the National Secretary of Science, Technology and Innovation (SENACYT), as well as the UNEP Task Manager. The SC's main functions were to assure compliance with the Project's objectives, carry out tracking of its activities, offer strategic guidance, and supervise compliance with the annual work plans. Other functions were to collaborate in inter-institutional coordination and guarantee the active participation and compliance with the commitments acquired by the institutions they represent.
60. The Project Coordinator (PC) was responsible for the execution, coordination, and supervision of all aspects of the project, and was in charge of the operative planning and day-to-day project activities, as well as management and consultancy follow-ups. The PC technically reported to the co-executing agencies: ROLAC and MiAmbiente. It should be noted that the project had two PCs during its execution.
61. Additional institutional and technical support was provided by members of the intersectoral environment, agriculture, and health committees, and by other research institutes such as the Agricultural Research Institute of Panama (IDIAP) and the Gorgas Memorial Institute of Tropical and Preventive Medicine (ICGES).
62. Due to the extended duration of the project and the delay in the inception of the project due to the lack of an administrative body to manage the project funds, the organizational chart presented in

Appendix 10 of the ProDoC<sup>5</sup> underwent some changes, and therefore the TR proposes a scheme that better represents the project management structure.

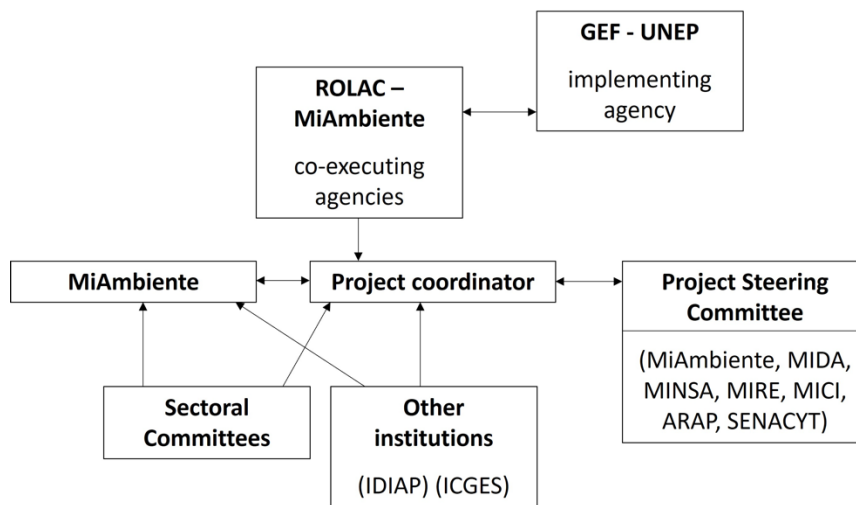


Figure 1: Organigram of the project with key stakeholders

## E. Changes in design during implementation

63. There were some major changes in project design during implementation. The GEF approved the project on 11 August 2011. According to the Prodoc, the commencing date of the project was September 2011 and the completion date September 2015. Nevertheless, the actual start day was 28 October 2013. Therefore, the inception started with adjusted details of the implementation model. Because of the institutional changes that took place in the Government of Panama and the change in the administrative management of the project described previously, funds had to be managed by ROLAC. Another major change was the three no-cost project extensions, from October 2016 to December 2019, from December 2019 to December 2020, and from December 2020 to September 2021. Although the expected completion date was September 2021, the reported completion date was March 2022. Until December 2023, even though all project activities were closed, there was still a remaining balance of approximately US\$40,000 that does not allow the financial closure of the project. Other minor changes (methodological approaches, specific activities, forms of collaboration with partners, implementation period) were activated as part of adaptive management. It should be considered that several project activities had to be rethought because of constraints during the Covid-19 pandemic.

## F. Project financing

64. Project expenditures were not reported by component, so it was not possible to analyze the expenditure ratio of planned versus actual. In general, the project financial information provided was complete. Administration and reporting were done following UNEP expenditure categories and presented in the Budget Revisions and Periodic Expenditure Reports. Despite the detailed budgets and revisions provided, it proved difficult to determine expenditures for each project component.

<sup>5</sup> See Appendix 10 of the Prodoc to review the original graphical representation of the project management structure.

**Table 4. Budget by Project Components (US)**

| Project Components   | GEF Financing  |    | Co-Financing     |    | Total (\$)<br>(a+ b) |
|--|----------------|----|------------------|----|----------------------|
|  | (\$ a)         | %  | (\$ b)           | %  |                      |
| 1. Implementation of the biosafety legal and institutional frameworks for complying with the CPB and the CBD | 172,180        | 51 | 166,960          | 49 | <b>339,140</b>       |
| 2. Reinforcement of capacities for LMO risk assessment and risk management                                   | 254,480        | 61 | 164,060          | 39 | <b>418,540</b>       |
| 3. Creation of an integrated monitoring, inspection, and response system                                     | 157,180        | 46 | 186,060          | 54 | <b>343,240</b>       |
| 4. Generation of national information on biosafety   | 72,880         | 36 | 129,760          | 64 | <b>202,640</b>       |
| 5. Promotion of public awareness, education, and public participation in matters relating to biosafety       | 133,107        | 49 | 138,160          | 51 | <b>271,267</b>       |
| 6. Project M&E   | 69,100         | 69 | 31,280           | 31 | <b>100,380</b>       |
| 7. Project management  | 96,000         | 34 | 183,720          | 66 | <b>279,720</b>       |
| <b>Total Project Costs</b>   | <b>954,927</b> |    | <b>1,000,000</b> |    | <b>1,954,927</b>     |

65. The co-financing amounts reported in Table 5 reflect the estimated co-financing for the project. It consisted of 20% cash and 80% in-kind contributions from the Government of Panama. Nevertheless, in March 2023, it was reported that the final amount of in-kind co-financing was US\$ 800,000, and there is no mention of the contribution that should have been delivered in cash.

**Table 5: Co-financing**

| Institution | Cash (US\$) | In-Kind (US\$) | Total: Cash + In-kind |
|-------------|-------------|----------------|-----------------------|
| ANAM        | 170,000     | 307,700        | 477,700               |
| SENACYT     | 5,000       | 82,400         | 87,400                |
| MIDA        | 5,000       | 82,000         | 87,000                |
| AUPSA       | 5,000       | 82,700         | 87,700                |
| ARAP        | 5,000       | 82,700         | 87,700                |
| INDICASAT   | 5,000       | 81,700         | 86,700                |
| MINSA       | 5,000       | 80,800         | 85,800                |
| Total       | 200,000     | 800,000        | 1,000,000             |

#### IV. THEORY OF CHANGE AT REVIEW

66. The ProDoc did not include a Theory of Change (TOC) but presents a Results Framework in Appendix 4, which contains elements that were used for the reconstruction of the TOC developed during this TR (Figure 2). This Results Framework contains the five project components (strategies) with their respective outcomes and outputs, indicators, sources of verification, and assumptions. Through the objectives of each component—as well as the project’s general objective—it is possible to infer the impact that this project aimed to achieve.
67. In the Mid Term Review (MTR) it is mentioned that the Theory of Change is set out in section 3.4 of the ProDoc entitled Logic of Intervention. This is an interpretation of the MTR that—for the criteria of this TR—does not represent the true approach of what a TOC should entail. Nevertheless, in the ProDoc (section 3.4.) it is described that there are two strategic pillars to achieve the project’s objective:
- The first pillar (NBF Strengthened) is the updating and modernization of the rules and regulations, in terms of biosafety, as well as the development of tools for risk management and information that will reduce, mitigate, or eliminate the risks associated with the transport and use of GMOs in Panama.
  - The second pillar (Capacity Building) is related to mechanisms for training the authorities responsible for managing GMOs, including Customs, so that they can apply the improved legal and institutional framework, as well as for the specialization of professionals in the field of biosafety, including the new generations that will promote its future application.
68. Besides the two pillars described by the ProDoc, the MTR mentioned that the project was developing a third pillar that could be called “enabling conditions”. These conditions were proposed in order that the project achieves the effective application of the NBF in Panama and, to this end, the following results needed to be pursued: (i) Creation of an integrated monitoring, inspection, and response system, (ii) Generation of national biosafety information as required by the Biosafety Clearing-House (BCH), and (iii) Promotion of public awareness, education, and participation related to biosafety matters.
69. For the reconstruction of the TOC presented in the Inception Report, what was reported in the MTR was taken into account, but it was considered necessary to structure the reconstructed TOC around the five components mentioned in the ProDoc, since these components reflect the causal pathways that were initially defined, and on the basis of which its final review should be undertaken. This approach taken during the Inception Report has been revised and strengthened for this Terminal Report after having more information and analysis of the project's outcomes, outputs, and impacts. This TOC reconstruction was mainly designed by the reviewer. Both the Task Manager and the project manager at MiAmbiente made comments, and the necessary adjustments were implemented.
70. The causal pathways of the project are:
- Causal Pathway 1. Implementation of legal and institutional biosafety frameworks to respond to CPB and CBD requirements.
  - Causal Pathway 2. Reinforcement of capacities for LMO risk assessment and risk management.
  - Causal Pathway 3. Creation of an integrated monitoring, inspection, and response system.
  - Causal Pathway 4. Generation of national information on biosafety.
  - Causal Pathway 5. Promotion of public awareness, education, and public participation in matters related to biosafety.
71. Figure 2 presents the reconstructed TOC and shows how the five causal pathways established were used to delineate the outcomes and outputs of the project, and the drivers and assumptions that were decisive during its execution. The drivers and assumptions associated to this reconstructed TOC are the following:

**Drivers:**

- D1: Government commitment, leadership, and support in terms of policies, legislation and biosafety activities
- D2: Sufficient financial resources allocated to the project
- D3: National institutions committed and actively participating throughout the project
- D4: Collaboration and active involvement of relevant research institutions, industry stakeholders, and the public
- D5: Capacity building is provided to relevant stakeholders, researchers, and other related institutions regarding to biosafety
- D6. An effective information system is in place for biosafety matters
- D7. The public and stakeholders have access to information and resources on biosafety
- D8. The government and other stakeholders create a supportive environment for biosafety dissemination and outreach

**Assumptions:**

- A1: There is political support
- A2: The required inter-institutional coordination is in place
- A3: Adequate funding is available
- A4: Panama has the competence to make decisions about LMOs
- A5: Information on LMO regulations and decisions are uploaded to the BCH
- A6: Technical personnel from institutions involved in risk assessment and management are trained
- A7: Technical personnel from related institutions is trained to track legal and accidental releases of LMOs
- A8: Resources are established for access to timely, accurate and up-to-date biosafety information
- A9: Target audiences are identified to raise interest in biotechnology and biosafety related topics
- A10: Professionals in the field of scientific communication participate in the project

72. The identification of the key actors in the change process was closely linked to the project's causal pathways. They were the main government institutions in charge of the management of LMOs in Panama, that include Ministry of Environment (MiAmbiente), Ministry of Health (MINSAs), Ministry of Foreign Affairs (MIRE), Ministry of Agricultural Development (MIDA), Ministry of Trade and Industry (MICI), Aquatic Resources Authority of Panama (ARAP), and the National Secretary of Science, Technology, and Innovation (SENACYT).
73. Through this TOC reconstruction exercise, the logic of the results pathways was reviewed, the assumptions were refined, and the hierarchy from outputs to impact was completed. The assumptions contained in the Results Framework have been adjusted and—in many cases—reformulated in the reconstructed TOC, representing the conditions necessary to achieve the outcomes and the main objective of the project. On the other hand, the drivers of the reconstructed TOC are proposed by the reviewer and are based on the overall context of the project, as these were not described in the



ProDoc. These drivers are underlying conditions that favor each pathway and could be leveraged by the project to promote change along the pathways.

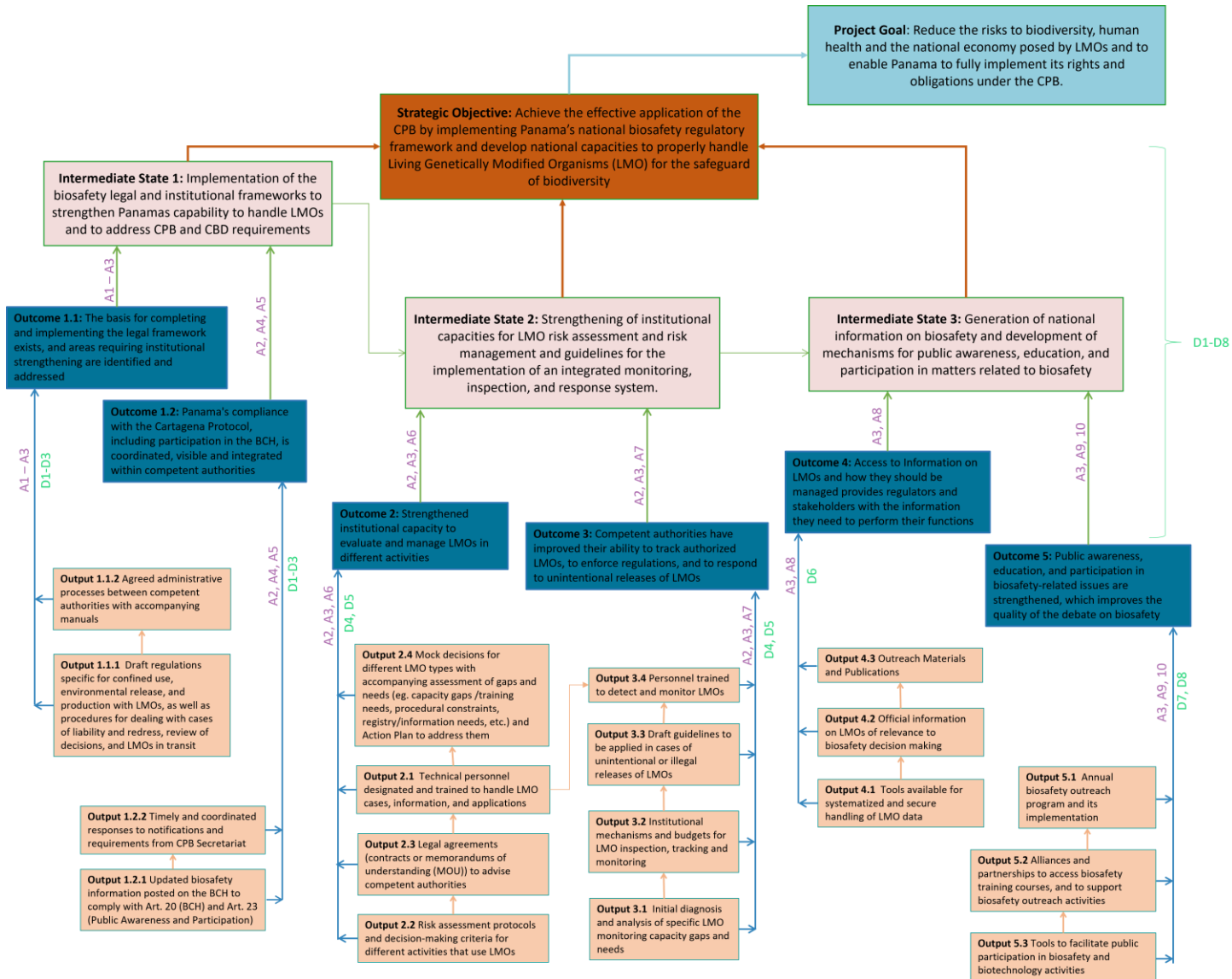


Figure 2: Reconstructed Theory of Change (TOC)

## V. REVIEW FINDINGS

74. The findings presented in this section provide a summative analysis of all gathered and triangulated information relevant to the parameters of the review criteria. Review findings are objective and evidence-based and directly relate to the review questions under each criterion. The findings reported are based on the evidence gathered for each of them and presented in Annex II (Review Framework) and are consistent with the information presented in the report. Each finding has an in-depth description that illustrates its consistency, context, and relevance.

### A. Strategic Relevance

**Finding 1:** The project approach (environmental governance, biodiversity conservation, and national biosafety frameworks) was innovative and ensured good participation and appropriation from main stakeholders, especially the members of the NBC.

**Finding 2:** The project objectives and strategies are aligned with policies and plans of GEF, UNEP, and national public institutions.

**Finding 3:** The project provides a number of relevant tools for biosafety management in Panama and thus enabling the country to implement the CPB effectively.

### Alignment to UNEP's UNEP Medium Term Strategy<sup>6</sup> (MTS), Programme of Work (POW) and Strategic Priorities

75. The project was aligned with UNEP's MTS 2014-17<sup>7</sup> and corresponding POW, and subsequent MTS and POW during its implementation. In the MTS 2014-17, the project would be framed under the strategy focused on environmental governance, and it is interesting to mention that in this MTS a relationship is made with the Aichi relevant targets, specifically with Target 17<sup>8</sup>. ((NBSAPs adopted as policy instrument) National biosafety frameworks).

76. The annual Project Implementation Reviews (PIR) provided relevance to updated POW during the project's implementation. For example, PIR 2021 reported direct linkages with Programme of Work for the Biennium 2020–2021, Subprogramme 3 – Healthy and productive ecosystems, and Subprogramme 4 – Environmental. As reported in the PIR 2021, the project sought to ensure that through a series of training activities, the institutions involved in LMOS risk analysis are strengthened and better prepared to fulfill their responsibilities. To this end, the project tested the operability of the NBC by means of simulated scenarios for the introduction of LMOs. This process of testing the operation of the NBC brought together different public entities and strengthened the interaction between them in the field of biosafety.

### Alignment to Donor/GEF/Partners Strategic Priorities

77. The project's aims were aligned to the effective application of the CPB by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle Living Genetically Modified Organisms (LMO) for the safeguard of biodiversity. Likewise, it contributed to the

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<sup>6</sup> UNEP's Medium-Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. <https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents>

<sup>7</sup> <https://www.unep.org/resources/report/unep-medium-term-strategy-2014-2017>

<sup>8</sup> <https://www.cbd.int/aichi-targets>

efforts of the Government of Panama to achieve one of the Millennium Development Goals: ensure environmental sustainability through the integration of sustainable development into country policies and programmes, and reverse the loss of natural resources, specifically globally important biodiversity. This project was also in line with the Plan of Action for Capacity Building of the CPB, adopted during the first COP MOP and modified during COP MOP IV.

78. The project was consistent with the GEF's Biodiversity Focal Area, under Strategic Programme-6 and was also related to Strategic Programme-1 through: (i) development of new capacities within MiAmbiente for coordination, monitoring, and supervision of Biosafety activities in the use of LMO; (ii) establishment of criteria for activities with LMO; and (iii) establishment of capacity for long term sustainability for biosafety. Likewise, the project promoted SP2 (Mainstreaming into Productive Sectors), strengthening the capacity of MiAmbiente and other national governmental institutions that are part of the NBC: (i) develop procedures and regulations for the use of LMO at the local and national levels; (ii) help key actors in the implementation of the CPB; and (iii) promote principles and processes of natural resources administration and protection of biodiversity in rural development.

### **Relevance to Global Regional, Sub-regional and National Priorities**

79. It is interesting to note in this TR what the PIR 2021 mentions in relation to UNSDCF / UNDAF linkages, where the Panama UNSDCF 2021-2025 Cooperation Framework is noted, specifically Result 3: "By 2025, Panama is resilient and has implemented environmental policies on adaptation and mitigation to climate change, land degradation neutrality, protection of biodiversity, integrated environmental management and disaster risk reduction, and health crises, with a focus on human, gender, intercultural, lifelong and territorial rights". This reference reflects the interest of the project and indirectly of Panama that biosafety related to LMOs continues to be an important topic within the country's environmental agenda, and includes other main topics as human, gender, intercultural, and territorial rights.
80. In the same way, the PIR for 2021 addresses relevant SDGs. Specifically, SDG 2 – Zero Hunger Target 2.5: "By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising". These references are important as this reflects an update to the impacts that the project may currently have that were not necessarily evident at the time of the project's design. For example, it is essential to link the conservation of seed diversity in the context of the introduction and appropriate use of LMOs in a given country.
81. It is relevant to recall some of the key elements that highlight the strategic relevance of this project at the national level and that were mentioned in the ProDoc<sup>9</sup>:
- The Republic of Panama ratified the Cartagena Protocol, with Law N° 72 of December 26, 1991 and then with Law N° 48 of August, 2002 as its main application tool.
  - Panama conducted two previous projects that provide the baseline for the project that is the subject of this terminal review. The first was the UNEP-GEF project: "Development of a National Regulating Biosafety Framework for Panama" (known as the NBF Development project) and the second was the UNEP-GEF project: "Building capacity for the Effective Participation in the Biosafety Clearing-House (BCH)".
  - The National Environmental Strategy "Environmental Management for Sustainable Development 2008 -2012", in guideline 1, objective 1, explains the consolidation of the legal framework and environmental policies, specifically the Biosafety Regulating Framework and the elaboration of the biosafety policy and its plan of action. Objective 2 prioritizes the functioning of the BCH National Website and the creation of a scientific base on which to

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<sup>9</sup> Prodoc: section 2

consolidate the Scientific, Technological, and Environmental Research Network. In guideline 4 of this strategy, one of the measures for conservation and appropriate use of biodiversity includes the implementation of the Biosafety Regulating Framework and the establishment of Biosafety Information Centers.

- The National Biodiversity Strategy establishes the fundamental need, in the short term, for creating an appropriate mechanism for the adoption of decisions on the safe transfer, handling, and use of LMOs.
82. Considering the items mentioned in the previous paragraph, the strategic relevance of the project is ratified. However, a series of circumstances, such as the long period of time for project start-up, administrative problems, and the Covid 19 pandemic, among others, were challenges that the project had to face in order to achieve the outcomes and outputs mentioned in the ProDoc and to implement the recommendations listed in the MTR.
83. In general, considering the analysis of the available information and the content of the interviews performed, it can be said that the strategic objective set for this project was achieved to a certain extent. (As per ProDoc: “The strategic objective of this Project is to safeguard biodiversity and implement strategic programmes of the GEF, specifically capacity building for the application of the CPB, which will contribute to avoid risks to biodiversity, human health and national economy”).
84. The results and activities of the project—especially those related to capacity building—contributed to the strategies of several key stakeholders for the proper handling, use, monitoring, and surveillance of LMOs in Panama. Mainly the following institutions and their officials benefited from the execution of this Project: Ministry of Environment (MiAmbiente), Ministry of Health (MINSAs), Ministry of Foreign Affairs (MIRE), Ministry of Agricultural Development (MIDA), Ministry of Trade and Industry (MICI), Aquatic Resources Authority of Panama (ARAP), and the National Secretary of Science, Technology, and Innovation (SENACYT).

### Complementarity with Existing Interventions/Coherence

85. The technical tools, manuals under preparation, and flowcharts developed by the project contributed to the functioning of Panama's National Biosafety System through its NBC and intersectoral committees, and continue to be used to date by the different public institutions, which reflects the project's contribution to the successful implementation of CPB in Panama and at the same time the project's contribution to the current functioning of the NBC and inter-sectoral committees in charge of LMO risk analysis and management in this country.

**Rating for Strategic Relevance: Satisfactory**

1. *Alignment to MTS and POW: “Satisfactory.”*
2. *Alignment to UN Environment Programme/GEF Strategic priorities: “Highly Satisfactory.”*
3. *Relevance to regional, sub-regional and national environmental priorities: “Satisfactory”.*
4. *Complementarity with existing interventions: “Satisfactory”.*

### B. Quality of Project Design

- **Finding 4.** The project was well designed, with good vertical and horizontal logic, indicators that did not meet SMART standards in all cases, a M&E plan with some limitations, good stakeholder inclusion, and some consideration of social and environmental impacts for project beneficiaries. Indicators were presented at the outcome level, which were aggregated to the objective level. Some outcomes did not fully reflect the activities to generate them.
86. The Review of the Project Design quality was based on the Project Document (ProDoc) and its Annexes, particularly Annex 4 (Results Framework), Annex 6 (Key deliverables and benchmarks), and Annex 7

(Costed M&E plan). It is noted that the Mid-Term Review (conducted in 2020) mentions some aspects about the project design that were considered at the time of the review of the Project Design Quality during this TR.

87. The reviewer used the “Template for the assessment of the Project Design Quality (PDQ),” prepared by UN Environment Programme Evaluation Office, which contemplates a rating and weighing system based on a six-point scale: Highly Satisfactory (6), Satisfactory (5), Moderately Satisfactory (4), Moderately Unsatisfactory (3), Unsatisfactory (2), and Highly Unsatisfactory (1), also in use for the main review. The initial PDQ Assessment is presented in Annex A of the Inception Report. During the preparation of this Terminal Report, and after a more complete analysis of the project from its design phase and subsequent execution, certain adjustments were made to the original scores of the PDQ, as shown in Table 6 below, which did not change the original overall project design rating.
88. In general, the Project Design is well-articulated; the project’s problem analysis, situation analysis, stakeholder mapping, and strategic relevance are well developed in the project documents. While there may be gaps or shortcomings, these design criteria—in general—are sufficiently well constructed/elaborated to withstand review.
89. The main advantage of using the PDQ is that it provides a set of questions and criteria that facilitate a more comprehensive and objective analysis. The ProDoc shows the project’s importance to the Government of Panama, includes and identifies multiple stakeholders relevant to the biosafety sector, and highlights a number of elements that were important at the time of the project’s design.
90. The project design is strong on the stakeholders’ identification. The ProDoc includes a detailed mapping of stakeholders (national institutions and others), including their interests or synergies with the project and their potential contribution. The main stakeholders, particularly the public national institutions that are part of the NBC, were consulted during the project’s design. According to the interviews conducted during the TR, the different institutions were adequately consulted on the main issues (project components, outcomes, and outputs). Although there was a good participation of the institutions in the design, this was not a guarantee in all cases of their participation in the project, and the participation and expected collaboration of some stakeholders identified at the national level in the execution or implementation of the project did not take place (i.e. the participation of officials from customs or the Panama Canal).
91. The outcomes proposed in the design were very much in line with Panama's commitments to the Cartagena Protocol on Biosafety, which adequately supported the project. Unfortunately, other design aspects, such as some outputs’ lack of definition to understand their impact during the project’s implementation (i.e. as mentioned in the ProDoc: 1.1.2. Agreed administrative processes between competent authorities with accompanying manuals), the weakness of the indicators and their baseline, as well as the inconsistency between objectives, outcomes, outputs, indicators, and assumptions, posed design problems.
92. As mentioned above, the design of the indicators was weak. In almost all cases they were not designed as SMART indicators (Specific, Measurable, Achievable, Relevant, and Time-bound): in some cases, their relevance is unclear (one example that can be cited in this regard is the component 2 indicator listed in the ProDoc: Evaluations and feedback take place for improved management of the biosafety system); they are not always measurable or attributable to the project's activities (one example that can be cited in this regard is the component 3 indicator listed in the ProDoc: At least 1 plan of action has been adopted in response to an accidental LMO release); and they are not time-bound (one example that can be cited in this regard is the component 5 indicator listed in the ProDoc: Opportunities are created for specialization in biosafety or biotechnology). Something similar can be said about the assumptions established, many of which are not clear and do not contribute to the project’s design and subsequent execution.
93. One of the most difficult aspects of this project, which clearly affected its initial design, is that it was designed—according to the ProDoc—to be implemented in four years, starting in 2011 and ending in 2015. But the activities actually started in 2016 and ended in 2022. Among other challenges that had to be overcome, it is worth mentioning the transformation of the ANAM into a ministry (MiAmbiente),

which meant the impossibility of having bank accounts for the project, and therefore the transfer of funds and resources for its implementation, as well as the creation of new procedures and challenges.

94. Table 6 presents the summary of the adjusted scores resulting from the assessment of the Project Design Quality (PDQ). The overall rating of the Project Design Quality is Moderately Satisfactory (MS).

**Table 6: Summary of the adjusted scores resulting from the assessment of the Project Design Quality (PDQ)**

|   | SECTION  | RATING (1-6) | WEIGHTING          | TOTAL<br>(Rating x Weighting /100) |
|---|--|--------------|--------------------|------------------------------------|
| A | Operating Context                                  | 4            | 0,4                | 0,16                               |
| B | Project Preparation                                | 4            | 1,2                | 0,48                               |
| C | Strategic Relevance                                | 5            | 0,8                | 0,4                                |
| D | Intended Results and Causality                     | 4            | 1,6                | 0,64                               |
| E | Logical Framework and Monitoring                   | 4            | 0,8                | 0,32                               |
| F | Governance and Supervision Arrangements            | 5            | 0,4                | 0,2                                |
| G | Partnerships                                       | 4            | 0,8                | 0,32                               |
| H | Learning, Communication and Outreach               | 3            | 0,4                | 0,12                               |
| I | Financial Planning / Budgeting                     | 3            | 0,4                | 0,12                               |
| J | Efficiency   | 4            | 0,8                | 0,32                               |
| K | Risk identification and Social Safeguards          | 3            | 0,8                | 0,24                               |
| L | Sustainability / Replication and Catalytic Effects | 3            | 1,2                | 0,36                               |
| M | Identified Project Design Weaknesses/Gaps          | 0            | 0,4                | 0                                  |
|   |  |              | <b>TOTAL SCORE</b> | <b>3.68</b>                        |

|                               |                |                             |               |
|-------------------------------|----------------|-----------------------------|---------------|
| 1 (Highly Unsatisfactory)     | < 1.83         | 4 (Moderately Satisfactory) | >=3.5 <=4.33  |
| 2 (Unsatisfactory)            | >= 1.83 < 2.66 | 5 (Satisfactory)            | >4.33 <= 5.16 |
| 3 (Moderately Unsatisfactory) | >=2.66 <3.5    | 6 (Highly Satisfactory)     | > 5.16        |

**Rating for Project Design: Moderately Satisfactory**

### C. Nature of the External Context

**Finding 5.** Administrative changes in government institutions constitute an external factor that influenced project implementation. ANAM was transformed into a ministry: MiAmbiente. The project adapted strategically to this change, but it entailed delays in the project’s inception and challenges for its administration.

**Finding 6.** A major contextual event was the pandemic outbreak of Covid 19. This event caused major operational problems for the project and resulted in delays and re-planning of activities.

95. Since the Project’s timespan was over a decade between approval and finalization, it faced some administrative challenges in its implementation. First, there was a major change in government administration. The initial executing agency (EA) was ANAM but the Panamanian government transformed this agency into a Ministry (MiAmbiente), which implied institutional and administrative

management changes. It took time to resolve who would manage the project funds until it was finally decided that ROLAC would assume this function. Therefore, the EA was to be shared by MiAmbiente for the technical part and ROLAC for the administrative and financial part.

96. Due to the aforementioned institutional changes, there were two coordinators during the execution of the project. It was not until 2017 that the project had a full-time dedicated coordinator who planned and organized all the activities. While there was an efficient passing of information between the two coordinators, as the second coordinator had been previously involved as a project assistant, these shifts always require adjustments and changes at the helm. Similarly, there were four UNEP Task Managers during the project's implementation, which also played a role in the project's follow-up.
97. It is important to note that the person in charge of the project within MiAmbiente was the same during the entire time. His proactive and committed attitude was very positive for the execution of the project since he promoted effective communication between all the entities: EA, IA, main stakeholders, and others. In all the interviews conducted during the TR there was total agreement that the coordination carried out by MiAmbiente was essential to achieve the outcomes and impacts of the project.
98. Because of the extended length of the project, there were also changes in the members of the NBC and the intersectoral committees. This is understandable since these are public institutions where personnel and functions change on a regular basis. These changes meant that certain project activities were carried out with actors who changed over time. This situation was complex, especially when it came to capacity building activities, as the new people lost training opportunities. Having said this, it can also be mentioned that some of the persons in these institutions remained the same and therefore actively participated in the activities of the project throughout its implementation.
99. The onset of the Covid 19 pandemic in March 2020 demanded an adaptive management of the activities planned for this period. The confinement conditions established in Panama and worldwide prevented the execution of planned in-person activities such as training workshops and a field visit to a foreign country for NBC members. Therefore, the pandemic situation made it necessary to implement alternative measures to carry out some of the planned activities. The project adapted to this situation by conducting the planned training workshops online, for which ICGEB's support was essential. There is disagreement among the persons interviewed about the success of these online workshops, but in general the reviewer was able to note that these workshops did create a space for interaction and learning. Some interviewees highlighted how interesting it was to have worked in specific groups to structure certain flowcharts that are still useful to date, and the good organization of these workshops by the ICGEB. Although carrying out these activities online is not ideal, due to the circumstances imposed by the pandemic, the project was able to adapt to a certain extent and to carry out several activities efficiently.

**Rating for Nature of the external context: Moderately Unfavorable**

## **D. Effectiveness**

### **Availability of Outputs**

**Finding 7.** The project achieved a majority of its planned outputs, both in terms of quantity and quality. A few outputs were achieved differently than planned because the project activities were adapted to changes in the context.

**Finding 8.** Key stakeholders at the local level and service providers were appropriately involved in the generation of outputs and this contributed to their good quality.

100. The project was successful in producing most of the programmed outputs and they were delivered properly. Table 7 shows a detailed analysis of the performance of each of the outputs in the project’s five components.
101. It should be noted that some outputs described in the ProDoc, such as output 5.1.1 or 5.1.3, are not clearly formulated, so it is not easy to analyze whether they were achieved or not. In other cases, such as output 2.1.2 or 3.1.2, activities to achieve a certain output were carried out, but the output was not necessarily achieved. In general terms, it can be said that the project in its most active execution phase made great efforts to complete all the outputs, but as mentioned already and as can be seen in the reviewer’s comments in Table 7, the outputs as such were not necessarily achieved but they were worked on. In addition, there are some outputs—such as 1.1.2 or 2.1.3.—that are not necessarily achievable within a project because their achievement depends on decision-makers external to the project’s execution.

**Table 7: Overview of achievement of outputs and comments by reviewer**

| Outputs<br>(as listed in reconstructed TOC Inception Report <sup>10</sup> )  | Status as per Project Final Report <sup>11</sup> | Reported outputs as per Project Final Report and comments by reviewer ( <i>in italics</i> )  |
|--|--|--|
| <p>1.1.1. Draft regulations specific for confined use, environmental release, and production with LMOs, as well as procedures for dealing with cases of liability and redress, review of decisions, and LMOs in transit.</p> | <p>Complete</p>                                  | <p>i. one (1) decree proposal for the new law 48; ii. six (6) resolutions, at ministries and competent authorities' level; iii. four (4) resolutions at the NBC level and administrative procedures for GMO-request processing, which include: a. three (3) procedures and flowcharts, and b. three (3) guidelines. Commercialization, environmental release, research, and development permits (Resolutions for LMO Transit and mobilization, food and seed labelling, sampling, importation of GMO-containing food, ‘Stacked events’, new breeding techniques, restricted zones and exception cases, as well a, control measures for intentional releases, accidental releases, and emergency measures).</p> <p><i>According to the interviews conducted, the respondents acknowledge the contribution of the project to formulate a proposal for the reform of Law 48, the development of some manuals and flowcharts that are still under review in the different institutions that are part of the NBC.</i></p> <p><i>The reviewer agrees, according to the evidence obtained, that the interviewees have a good appreciation of the results achieved in this component of the project.</i></p> |

<sup>10</sup> As presented in Table 2 – Inception Report

<sup>11</sup> As presented in the Project’s final report, October 2023



|  |                 |  |
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| <p>1.1.2. Agreed administrative processes between competent authorities with accompanying manuals.</p>                                       | <p>Complete</p> | <p>Manuals were produced.</p> <p><i>According to the information provided by the members of the NBC and the intersectoral committees, thanks to the workshops held during the project, proposals for manuals have been prepared, but the final versions of the manuals are still pending. According to the reviewer's assessment, this is a product that has not been fully achieved because having drafts of manuals does not necessarily imply having "agreed-on administrative processes".</i></p>  |
| <p>1.2.1. Updated biosafety information posted on the BCH to comply with Art. 20 (BCH) and Art. 23 (Public Awareness and Participation).</p> | <p>Ongoing</p>  | <p>BCH publicly available. List of GMO species processed in Panama and list of GMO products nationally available still pending</p> <p><i>The obligation to comply with the reporting requirements of CPB country parties goes beyond a project. In this case, the BCH focal point is MiAmbiente and its spokesperson mentioned that there is information that has not been uploaded or updated in this portal to date.</i></p>   |
| <p>1.2.2. Timely and coordinated responses to notifications and requirements from the CPB Secretariat.</p>                                   | <p>Complete</p> | <p>Work on national reports to the CPB is undertaken, not directly coordinated by this project.</p>  |
| <p>2.1.1. Technical personnel designated and trained to handle LMO cases, information, and applications.</p>                                 | <p>Complete</p> | <p>Officers of the National Competent Authorities (NBC and its three sectorial committees) during this reporting period completed the trainings on LMO risk assessment in a 5 days' workshop: Risk Analysis: The Role of Science in GMO Decision-making led by IP ICGEB, that took place in April 2021.</p> <p><i>The reviewer believes that the capacity-building activities carried out are the main output of this project; however, it is not possible to think that a training workshop has trained personnel, but rather that it contributed to their training in biosafety issues related to handling of LMOs. Therefore, this is an ongoing process.</i></p> |
| <p>2.1.2 Risk assessment protocols and decision-making criteria for different activities that use LMOs.</p>                                  | <p>Complete</p> | <p>A zoning map was produced, presented and validated by the NBC during this period.</p> <p><i>This product was related to the establishment of criteria for the decision-making or risk-analysis processes in different cases of LMOs. Having elaborated a zoning map definitely contributes to the achievement of the product, but it is not the product itself, so from the reviewer's assessment this product was not entirely completed.</i></p>  |

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| <p>2.1.3. Legal agreements (contracts or memorandums of understanding (MOU)) to advise competent authorities.</p> | <p>Complete</p> | <p>To date, the project maintains the contract signed with ICGEB. This IP had facilitated experts and consultants from Mexico and Argentina to provide advisory services to the NBC and its three sectorial committees.</p> <p>Advisory services provided, but no model legal agreements.</p> <p><i>The same final project report states that no legal agreements were reached, but ICGEB did provide services. According to the information gathered during the visit to Panama, the members of the NBC and intersectoral committees confirmed the training activities carried out by ICGEB and the importance of having learned about the experiences of other countries such as Argentina and Mexico. This experience is enriching but does not imply the achievement of the planned product.</i></p> |
| <p>2.1.4. Mock decisions for different LMO types with accompanying assessment of gaps and needs</p>               | <p>Complete</p> | <p>The workshops and the virtual South-South exchange with Argentina, both implemented mock decision exercises, case studies, and trials, covering the gaps and needs identified in the consultation stages. and case studies.</p> <p><i>This output was successfully carried out and helped to strengthen the knowledge of government officials in charge of performing risk analysis of LMOs.</i></p>  |
| <p>3.1.1. Initial diagnosis and analysis of specific LMO monitoring capacity gaps and needs.</p>                  | <p>Complete</p> | <p>As part of the analysis of the regulatory framework carried out by ICGEB (2nd quarter 2020) and available to the NBC, an analysis of the capacity gaps has been included for the specific LMO monitoring capacity, thus complying with the output committed for this component.</p> <p><i>According to the interviews conducted on the products of component 3, the members of the intersectoral committees and NBC members could say little about the topic of LMO monitoring, which reflects that although this analysis has been done, there was a lack of internalization of this information.</i></p>  |
| <p>3.1.2. Institutional mechanisms and budgets for LMO inspection, tracking and monitoring.</p>                   | <p>Complete</p> | <p>A new Legal and Regulatory framework was proposed by ICGEB and presented to the NBC, LMO inspection, tracking, and monitoring are essential elements present not only in the proposed Law 48 reform but also several regulatory documents. Making therefore a key input for decision making on this regard.</p> <p><i>Again, it can be seen that the project made efforts to work on the planned output within the project, but that it was not achieved as such. From the</i></p>  |

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|  |          | <i>reviewer's analysis this may imply that the planned product was too ambitious and could not be achieved within a project because it requires governmental decisions that go beyond the scope of a project.</i>  |
| 3.1.3. Draft guidelines to be applied in cases of unintentional or illegal releases of LMOs. | Complete | <p>The Project produced three (3) guidelines to respond to accidental releases. Commercialization, environmental release, research, and development permits (Resolutions for LMO Transit and mobilization, food and seed labelling, sampling, importation of GMO-containing food, 'Stacked events', new breeding techniques, restricted zones and exception cases, as well as, control measures for intentional releases, accidental releases, and emergency measures).</p> <p><i>The guidelines reported in the final report of the project were developed. When the technical personnel in charge of these topics were consulted, they thought that these guidelines do exist, but that they should be "nationalized" so that they can be applied in Panama. In fact, the general opinion of the persons interviewed on this component is that training was carried out, that there are drafts of manuals and flowcharts of great value, but that the institutions should work on their appropriation and application.</i></p> |
| 3.1.4. Personnel trained to detect and monitor LMOs.   | Ongoing  | <p>Equipment purchase and associated field detection training have been delayed, but are expected to occur in the final month of the project.</p> <p>The GMO Analysis Methods and their Role in a Biosafety Regulatory Framework Workshop's both theoretical and practical sessions held on October 2020 completed the training program.</p> <p><i>In fact, as of December 2023, the purchase of equipment for LMO detection was still pending, which has not allowed the financial closure of the project.</i></p> <p><i>In general, the research institutes consulted in Panama during this TR have the capacity to detect LMOs beyond the efforts made by the project.</i></p>  |
| 4.1.1. Tools available for systematized and secure handling of LMO data.                     | Complete | <p>A new Biosafety Clearing House (BCH) Site have been implemented to facilitate the exchange of scientific, technical, environmental, and legal information on living modified organisms. The site includes a private access space (Internal tool) Which is already set up and can be used by the authorities. Administrators were trained, and user manual delivered. Agreements to guarantee due diligence of private sector pending.</p>   |

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|  |          | <p><i>Indeed, the project made available a new portal on biosafety for Panama. Unfortunately, when the project ended this portal no longer had an administrator and therefore no information has been updated and the internal site has not been implemented as a tool for working and communication among the institutions related to LMOs. This is a pity because there is an installed technical capacity that could be a great tool for the proper handling and management of LMOs in this country.</i></p>   |
| 4.1.2. Official information on LMOs of relevance to biosafety decision making. | Complete | <p>The new BCH has specific information of events cases of entry of LMO and GMOs together with registration of LMOs (National Registry List). With this, the milestone established for the mid-term of the Project was accomplished.</p>  |
| 4.1.3. Outreach Materials and Publications.                                    | Complete | <p>Two (2) short documentaries: The Genetic Editing, 23 minutes and The Genetic Crossroads of 25 minutes length, along with other communication and knowledge products:</p> <p>Five (5) scientific articles: Panama Biosafety during pandemic times, The crossroad of GMO, Methods and analysis of Biosafety, Biosafety in Panama and Argentina: South-South Cooperation, and Biotechnology in the 5th Industrial Revolution.</p> <p>Six (6) media kits covering a wide range of topics on information on Biosafety, GMO risks and benefits and primary applications, Cartagena Protocol, and National Biosafety Commission, each accompanied by a press note: The National Biosafety Commission for GMOs is strengthened through the GEF Project, Regulated Biosafety, Biosecurity Processes, GMO Analysis Methods, South-South exchange, Argentina – Panama, Analyzing Possible Risks of Genetically Modified Organisms.</p> <p>Twenty (20) one-minute video capsules.</p> <p>Four (4) photographic exhibitions; three of them where exhibited in high- transit locations: Albrook Mall, pasillo del Koala, March 19th – April 1st 2019, Las Bóvedas (Casco Antiguo), 2 - 16 of April 2019, Aeropuerto de Tocumen, April 17th – May 1st 2019, and one (1) is a virtual exhibition including forty-six (46) informative panels.</p> <p>One E-Book that comprises the above- mentioned knowledge products.</p> <p><i>As can be seen in the final project report, the project was successful in producing outreach materials that can be found on the national biosafety portal. The reviewer, according to the comments received on this topic during the interviews carried out, believes that these materials are not well known by the persons working in the national and research institutions related to biosafety. Very few people were aware of the videos produced, for example.</i></p> |

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|   |          | <i>This implies that surely there was a lack of promotion of these valuable outputs produced by the project in order to achieve the desired impact.</i>   |
| 5.1.1. Annual biosafety outreach program and its implementation.  | Complete | <p>The outreach program for Biosafety Dissemination comprises of a number of specific activities and products, several of which have been completed during this period with the assistance of IP FAM.</p> <p><i>According to what is reported in the project's PIR and the final report, it can be seen that activities related to component 5 of the project relating to public awareness were indeed carried out. However, in the reviewer's view, these activities do not imply having achieved the mentioned product: "Annual biosafety outreach program and its implementation". Outreach activities were carried out, yes; these activities had an annual planning, yes; but was this the planned output: to hire an agency to do an outreach campaign? Perhaps the problem lies in how this output was designed in the ProDoc.</i></p>   |
| 5.1.2. Alliances and partnerships to access biosafety training courses, and to support biosafety outreach activities. | Complete | <p>Even though the Project explore the possibility with IP ICGEB of granting access to its e-learning platform to the NBC, this could not be concreted. The e-learning platform only offers courses in the English language, of which only the minority of the members know. Nevertheless, alliances with legal experts and consultants from Mexico and Argentina have been supported, and it is the NBC's task to carry on these efforts.</p> <p><i>Again, it appears that the project worked and made efforts to achieve the planned output but did not achieve it as such. For the reviewer, it would have been more informative for the final project report to be more critical of the outputs achieved, highlighting the efforts made, but not mixing these with the outputs achieved. For the reviewer, what this reflects is that the project design was very ambitious and that the planned outputs were often not feasible to achieve within the project activities. This should be a lesson learned for future projects.</i></p> |
| 5.1.3. Tools to facilitate public participation in biosafety and biotechnology activities.                            | Complete | <p>The new BCH completed during this period will trigger the possibility that the Biosafety be mainstreamed into universities, private sector, civil society, producers among other interest groups. Sections as Q&amp;A, activities, news, documents, and publications repository, among others, are already build in in the new site.</p> <p><i>The formulation of the product itself is very vague, to which tools does it refer? How many tools? In this</i></p>  |

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|  |  | <p><i>sense, the reviewer agrees that the new portal can be a tool that contributes to public information if it would be an active portal and would be known by the different sectors of Panamanian society.</i></p> |
|--|--|--|

***The subcriterion “Availability of outputs” is rated as “Moderately Satisfactory”***

**Achievement of Project Outcomes**

**Finding 9.** The project contributed to strengthening the legal framework for biosafety in Panama, identified the institutions that need strengthening for the adequate handling of LMOs, and contributed to Panama's compliance with its obligations under the Cartagena Protocol (Outcome 1).

**Finding 10.** A series of capacity-building workshops carried out during the project strengthened institutional capacity to evaluate and manage LMOs in Panama (Outcome 2).

**Finding 11.** The project conducted training activities for competent authorities on how to establish an integrated monitoring, inspection, and response system to track authorized LMOs, enforce regulations, and respond to unintentional releases of LMOs. However, this system has not yet been established in Panama (Outcome 3).

**Finding 12.** The project established a website: <https://bioseguridad.gob.pa> to promote the exchange of information on biosafety at national and international levels. The information on this website corresponds to that uploaded during the project, has not been updated, and does not yet serve as a tool for communication and management of LMOs among the institutions in charge of handling of these organisms (Outcome 4).

**Finding 13.** The project contributed to providing information on biosafety-related issues to the general public that may contribute to public awareness, education, and opinion on biosafety-related issues to some extent (Outcome 5).

102. The achievement of project outcomes was assessed against the outcomes defined in the reconstructed Theory of Change. These are outcomes that were intended to be achieved by the end of the project’s timeframe and within the project's resource envelope. The achievement of the outcomes is closely related to the five components defined for this project.

103. Concerning the outcomes of Component 1 of the project: “Implementation of the biosafety legal and institutional frameworks for complying with the Cartagena Protocol and the CBD”, the reviewer considers that the two outcomes described within this component: (Outcome 1.1. The basis for completing and implementing the legal framework exists, and areas requiring institutional strengthening are identified and addressed, and Outcome 1.2. Panama's compliance with the Cartagena Protocol, including participation in the BCH, is coordinated, visible, and integrated within competent authorities), were moderately satisfactorily achieved. The outputs related to these outcomes show that the project was able to contribute to strengthening the legal framework for biosafety in Panama, although the legal reforms or the enforcement of manuals or flowcharts that were produced within the project need approvals from the competent authorities. In addition, according to the information collected by the reviewer during the interviews, the different institutions related to NBC still need to work on the final versions of the manuals and flowcharts produced during the project so that these are really instruments that support their duties when it comes to perform risk analysis of LMOs or analyze applications for different activities with LMOs in Panama.

104. As shown by the satisfactory achievement of the outputs in Component 2: "Reinforcement of capacities for LMO risk assessment and risk management", the reviewer considers that the outcome: "Strengthened institutional capacity to evaluate and manage LMOs in different activities", was achieved. During the interviews conducted, there was unanimous agreement that the greatest contribution of this project was the capacity-building activities. All those involved in these activities acknowledged the quality of the workshops and the positive experience of learning about how LMOs are regulated in other countries such as Mexico and Argentina. Several interviewees highlighted the value of the flowcharts that were produced with ICGEB's guidance. These flowcharts are excellent guidelines for the work to be carried out by the different institutions that are part of the NBC or intersectoral committees. It is important to mention that these flowcharts are not finalized and that— according to some interviewees— they need to be adapted to Panama's specific needs. The same scenario would apply to the draft of the manuals elaborated within the project activities and that still need to be finalized to become tools to guide the activities of analysis, handling, and use of LMOs in this country.
105. Outcome 3 (Competent authorities have improved their ability to track authorized LMOs, to enforce regulations, and to respond to unintentional releases of LMOs) within project component 3: "Creation of an integrated monitoring, inspection and response system", according to the reviewer's view, has been moderately unsatisfactorily generated, although its implementation is a work in progress. The analysis of the outputs of this project component indicates that during the project, mainly capacity- building activities related to the monitoring of LMOs and response measures in case of unintentional releases of these organisms were carried out. However, according to the interviews conducted with the main stakeholders responsible for these functions, they unanimously stated that there are no established monitoring procedures or response measures in case of accidents with LMOs, which reflects that there is no system for vigilance and monitoring of LMOs in Panama. Regarding the tracking of LMOs, the efforts of the project so that a public institution can acquire equipment for the detection of these organisms was still pending until the elaboration of this report. However, the reviewer would like to point out that according to the information provided, especially from the interviews with personnel from research centers in Panama, it is evident that these institutions do have the infrastructure to detect LMOs, which would imply that this country should still work on establishing a monitoring and vigilance system, taking advantage of these national institutions' installed capacities.
106. As shown by the satisfactory achievement of the outputs in Component 4: "Generation of national biosafety information," the reviewer considers that the outcome: "Access to information on LMOs and how they should be managed provides regulators and stakeholders with the information they need to carry out their functions," was partially achieved. Based on the analysis of the outputs that contribute to achieving this outcome, it can be seen that the project made efforts to make relevant information on biosafety available to the institutions in charge of LMO management in Panama and also to the general public, thus contributing to a well-informed society on this issue. The information on the portal created within the project corresponds to the information uploaded during its timeframe and has not been updated since then. Therefore, it does not yet serve as a tool for communication and management of LMOs among the institutions in charge of handling these organisms. The Portal exists, but it is an information exchange center that is not currently used by the institutions involved in biosafety in Panama, nor is it in the minds of the persons interviewed, who are aware of its existence but do not use it.
107. Outcome 5 (Public awareness, education, and participation in biosafety-related issues are strengthened, which improves the quality of the debate on biosafety) within project component 5: "Promotion of public awareness, education, and public participation in matters relating to biosafety" was moderately achieved during the project's implementation according to the reviewer's analysis. Based on the activities reported in the PIRs and in the final report, it can be

seen that work was done on public awareness related to LMOs. Outreach materials were produced, and a public awareness campaign was launched in some locations in Panama City. The agency hired for this campaign reported high number of visitors to the developed exhibition, but there was no assessment as to whether the different sectors of the public have increased their knowledge about LMOs and have a better understanding of this topic as a result of this campaign. The outputs established within this component in the project design are vaguely formulated, which makes it difficult to analyze them and therefore how they contributed to the achievement of the outcome of this component. In general terms, it can be concluded that the project worked on this component but that the impact of the outreach activities on the knowledge and education of the general public remains to be evaluated. During the interviews conducted by the reviewer on her visit to Panama, it was found that the interviewees had scarce information about the outreach videos produced as part of the project or the awareness-raising campaign carried out. While it is true that these products were not directed to the project's main stakeholders, the reviewer was surprised by the lack of knowledge about the implementation of these activities among persons of the institutions that were part of the project's steering committee.

108. Beyond the analysis of the results achieved in the project, the reviewer considers that—in general— the project succeeded in strengthening the LMOs analysis capacities in Panama, created a space for the exchange of ideas, and improved the relationships between the institutions involved in the regulation of these organisms in the country. The project contributed to the strengthening of the national biosafety framework, which will help Panama to continue complying with its obligations under the CPB and to perform the required biosafety functions for an adequate use of LMOs in the country, thereby contributing to the conservation of its biodiversity and local production.

*The subcriterion “Achievement of project outcomes” is rated as “Moderately Satisfactory.”*

## Likelihood of Impact

**Finding 14.** The project contributed substantially to its strategic objective<sup>12</sup>: through a series of training activities, it helped to strengthen Panama's national biosafety regulatory framework and thereby contribute to the effective implementation of the Cartagena Protocol and to safeguarding the country's biodiversity.

**Finding 15.** The outcomes and impact of the project have primarily benefited the key stakeholders, but to different degrees.

109. The likelihood of impact is influenced by the degree to which the changes that are required between project outcomes and impact were achieved at the time of the review. The project's objective was “to achieve an effective application of the CPB by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle Living Genetically Modified Organisms (LMO) for the safeguard of biodiversity”. With the achievement of most of the Project's outputs and outcomes, the review's findings confirm that this objective was achieved, and the generation of impact is likely.

110. Among the key stakeholders are the institutions that are part of the NBC, such as: Ministry of Environment (MiAmbiente), Ministry of Health (MINSa), Ministry of Foreign Affairs (MIRE),

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<sup>12</sup> The project document does not have a specific impact statement, but as the strategic objective is formulated in the reconstructed TOC, it can be considered as "impact."



Ministry of Agricultural Development (MIDA), Ministry of Trade and Industry (MICI), Aquatic Resources Authority of Panama (ARAP), and the National Secretary of Science, Technology, and Innovation (SENACYT), as well as the institutions that form the intersectoral committees, who benefited significantly from all the capacity-building activities offered by the project. Through these activities, the personnel involved strengthened their knowledge of biosafety related to LMOs and are better equipped to carry out their functions. This was unanimously recognized during the interviews conducted during this TR. In addition, the project also included in its activities persons from research institutes and the academic sector, and although their participation was not consistent during the project timeframe, it contributed to their knowledge on this topic. Although the project also failed to make the Panama Canal Authority (ACP) and the National Customs Authority (ANA) active stakeholders, there was an attempt to involve them in the project. This effort probably had an impact on these institutions, which learned about this topic and know that, although it is not established in the internal regulations of their institutions, it is an important issue that should be considered at some point in time. Likewise, the project's contribution in public awareness activities had a certain level of impact on the general public, and although there is still work to be done on this component, the activities carried out did contribute to a given segment of the Panamanian population to have a better knowledge of what LMOs are and their implications, and thus helping to build a criterion on this issue.

*The subcriterion "Likelihood of impact" is rated as "Likely"*

**Rating for Effectiveness: Moderately Satisfactory**

## **E. Financial Management**

**Finding 16.** The project's financial management was conducted according to planning and followed financial and operational standards of UN Environment Programme. Financial reporting was correct, timely, and transparent.

**Finding 17.** The project received in-kind co-financing from seven governmental institutions as originally planned in the project design; however, cash co-financing from these institutions did not materialize.

### **Adherence to UNEP's Financial Policies and Procedures**

111. The project followed UNEP's financial policies and procedures, as stipulated in the Project Cooperation Agreement (PCA) signed between UNEP and the former ANAM in October 2013. In particular, the PCA describes how the project's financial management, contracting procedures, as well as conditions and obligations related to project implementation, subcontracts, personnel administration, cost overruns, project management costs, record keeping, unspent balances, and reporting requirements will be carried out. Adherence to these policies and procedures is reported in the periodic expenditure reports, budget reviews, and financial documents to which the reviewer had access during this TR.
112. In this analysis it is necessary to highlight some relevant points regarding the financial management of the project: (i) the first disbursement was made on August 12, 2014, (ii) according to the available documents it can be seen that only in 2016 was the first expenditure made using the GEF fund (US\$6,600 in the Equipment and Premises component), (iii) it is only in 2017 that a significant activation of the project is seen, and this is reflected in the expenditures made during this year,

which amounted to US\$73,448.25. These delays in the project's activation of the were due to the aforementioned administrative problems faced until its effective initiation in 2017.

113. Final expenditures varied significantly in some items compared to the original budget. Table 8 shows these differences. Among them, the most significant changes were the following: In the "Training" component there was a 65% overestimation of the original budget needed and in the "Equipment and premises" component there was a 62% underestimation. What is most striking is the change in Miscellaneous, where there was a 121% increase in relation to the original budget. The final expenses varied significantly in some items compared to the original budget. Table 8 shows these differences. The most significant changes are highlighted. In the item "Training" there was an original overestimation of the necessary budget of 65%, and in the "Equipment and premises" component there was an underestimation of 62%. What is most striking is the change in the Miscellaneous component, where there was a 121% increase in relation to the original budget. All these data reflect that there were problems between what was originally budgeted and the expenses incurred in each component. In the Miscellaneous component, for example, there is a significant expenditure in "Publication, Translation, Dissemination, and Reporting Costs" that was probably not well-estimated in the project design. The long time between project approval and completion definitely influenced the financial management of the project.

**Table 8: Original budget (at CEO endorsement), revised budget (April 2019, after inception) and revised budget, according to spending up to project end (July,2021)**

| Budget line            | Original budget (CEO endorsement, 2011) | Revised budget (April 2019) | Revised budget (July 2021) | Difference 2011-2021 (%) |
|------------------------|---|-----------------------------|----------------------------|--------------------------|
| Personnel              | 480,100                                 | 418,921.46                  | 490,173.73                 | + 2.1 %                  |
| Sub-contracts          | 143,800                                 | 200,000                     | 200,000                    | + 39.1 %                 |
| Training               | 241,327                                 | 120,739.85                  | 83,927.70                  | - 65.2 %                 |
| Equipment and premises | 30,100                                  | 51,731.54                   | 49,091.79                  | +63.1 %                  |
| Miscellaneous          | 59,600                                  | 163,534.16                  | 131,733.78                 | +121.0 %                 |
| <b>TOTAL</b>           |   | <b>954, 927</b>             |                            |                          |

114. For this specific project, it should be noted that since the project was internally executed by UNEP, the requirement for financial audits did not apply. This is why the analysis of the financial management is based on the documents available in Anubis, which are mainly the Budget Revisions that were performed annually from 2017 to 2021 as well as Periodic Expenditure Reports (PER) performed quarterly in the same period. It is worth mentioning that there are also PERs between 2013 and 2016, but not quarterly because the project was not fully operational in those years.

### Completeness of Financial Information

115. In general, the financial information provided was complete. The original budget (Prodoc) was detailed in terms of expenditures per project component and per UN Environment Programme expenditure category. It also provided a breakdown by the activities to be performed within each category. For example, the "Training component" described the estimated costs of the workshops and meetings that were planned to be held within the project components. Administration and reporting were further done following UNEP expenditure categories and

presented in Budget Revisions and Periodic Expenditure Reports. However, despite the detailed budgets and revisions provided, it was difficult to determine the expenditure for each project component and therefore to perform an analysis of planned versus actual expenditures at this level.

116. Regarding co-financing, the ProDoc included a total amount of US\$1,000,000 in co-financing, which should have consisted of 20% in cash and 80% in in-kind contributions from the Government of Panama. The institutions contributing to this co-financing were ANAM (MiAmbiente), ARAP, AUPSA, INDICASAT, MIDA, MINSA, and SENACYT. Appendix 12 of the ProDoc contains the co-financing commitment letters from the aforementioned institutions. However, in the financial documents available for the project (Anubuis), there are "Government co-financing letters" that support this financial commitment only for the years 2020 and 2021, and only mention in-kind co-financing. The Final report presented by the project states a final in-kind co-financing of only US\$ 819,534.76. There is no mention of co-financing in cash in any document to which the reviewer had access. In addition, in a letter sent to ROLAC by the person responsible for this project in MiAmbiente in March 2023, it is reported that the final amount of in-kind co-financing was US\$ 800,000, confirming the initial amount declared in the ProDoc in this category, and there is no mention of the contribution that should have been delivered in cash. There is some discrepancy between the amount reported in this letter and the Final Report. Both in the Final Report of the project and in the aforementioned letter of March 2023, it is reported that the seven governmental institutions mentioned in the ProDoc were the ones that gave their contribution in kind for the execution of this project, but as previously commented, no individual letters could be found confirming their factual contribution, but rather letters that speak in general of the governmental contribution and are signed by the person responsible for the project at MiAmbiente.

#### **Communication Between Finance and Project Management Staff**

117. It should be noted that the financial management of this project was carried out by ROLAC, and that the persons involved in this management changed throughout the extended duration of the project. From the information examined by the reviewer and the interviews conducted, it can be said that the attitude of those responsible for this financial management at ROLAC was proactive in supporting the implementation of the project despite several setbacks mentioned previously that had to be overcome. Considering this context, the communication between the Finance and Project Management staff (project coordinator and his/her assistant) resulted in an effective and efficient management of the project. According to the interviews conducted, the communication was consistent and timely. The project coordinators expressed that there was adequate management of the budget. They also noted that although there were sometimes delays in the contracting and payment processes, there was always good communication and willingness between them and ROLAC to move forward with the project activities. Expenditures were reported every three months, which contributed to the timely and accurate financial status of the project.

**Table 9: Financial Management Table**

| Financial management components:   |   | Rating    | Evidence/ Comments   |
|--|---|-----------|--|
| <b>1. Adherence to UNEP’s policies and procedures:</b>   |   | <b>S</b>  |  |
| Any evidence that indicates shortcomings in the project’s adherence <sup>13</sup> to UNEP or donor policies, procedures or rules |   | No        | Budget revisions, periodic expenditures reports.   |
| <b>2. Completeness of project financial information<sup>14</sup>:</b>  |   |           |  |
| Provision of key documents to the reviewer (based on the responses to A-H below)   |   | <b>MS</b> | Available in Anubis  |
| A.   | Co-financing and Project Costs tables at design (by budget lines)   | Yes       | Appendix 2 co-financing specified per source, per project component and per UNEP budget line – ProDoc.   |
| B.   | Revisions to the budget   | Yes       | Included in Anubis (11 between 2013 and 2021)  |
| C.   | All relevant project legal agreements (e.g. SSFA, PCA, ICA)   | Yes       | Included in Anubis   |
| D.   | Proof of fund transfers   | No        | Project was managed internally by UNEP   |
| E.   | Proof of co-financing (cash and in-kind)  | Yes       | Final report provides by source and type; however, while a co-financing commitment letter is required for the ProDoc, there is no commitment letter to prove final co-financing provided |
| F.   | A summary report on the project’s expenditures during the life of the project (by budget lines, project components and/or annual level) | Yes       | Periodic Expenditures Reports and Budget Revisions all detailed by year and budget line, however, not by component.  |
| G.   | Copies of any completed audits and management responses<br><i>(where applicable)</i>  | NO        | Project was managed internally by UNEP   |
| H.   | Any other financial information that was required for this project (list):  | N/A       |  |
| <b>3. Communication between finance and project management staff</b>   |   | <b>S</b>  | National Project Coordinator, Project director, and IA staff continuously and fully aware of financial management.   |
| Project Manager and/or Task Manager’s level of awareness of the project’s financial status.                                      |   | S         |  |
| Fund Management Officer’s knowledge of project progress/status when disbursements are done.                                      |   | S         |  |

<sup>13</sup> If the review raises concerns over adherence with policies or standard procedures, a recommendation maybe given to cover the topic in an upcoming audit, or similar financial oversight exercise

<sup>14</sup> See also document ‘Criterion Rating Description’ for reference

|  |           |  |
|--|-----------|--|
| Level of addressing and resolving financial management issues among Fund Management Officer and Project Manager/Task Manager.                    | MS        |  |
| Contact/communication between by Fund Management Officer, Project Manager/Task Manager during the preparation of financial and progress reports. | S         |  |
| Project Manager, Task Manager and Fund Management Officer responsiveness to financial requests during the review process                         | HS        |  |
| <b>Overall rating</b>  | <b>MS</b> |  |

**Rating for Financial Management: Moderately Satisfactory**

1. *Adherence to UNEP’s policies and procedures: “Satisfactory”.*
2. *Completeness of financial information: “Moderately Satisfactory”.*
3. *Communication between finance and project management staff: “Satisfactory”.*

**F. Efficiency**

**Finding 18.** The project collaborated effectively mainly with national governmental institutions, with national research institutes, and with external entities that contributed to the generation of project outcomes.

**Finding 19.** The project had a serious delay in its implementation, caused by administrative problems that prevented a timely inception and later by the Covid 19 pandemic. As a result, the project had three extensions. In practice, this ensured moderately satisfactory completion of outputs and generation of outcomes. The extensions did not affect funding and, overall, the project was cost-effective.

**Finding 20:** Since the project was implemented during a long period of time (11 years), it had to adapt to several administrative changes and contextual factors, including the Covid 19 pandemic. The project management eventually adapted to these changes.

118. The project’s implementation was relatively efficient despite the setbacks that had to be faced in order to get the project activities started. The change from ANAM to a Ministry (MiAmbiente), as mentioned already, presented institutional arrangements and administrative challenges that had to be resolved prior to the actual start of the project. Thanks to the intervention of ROLAC as co-executing agency together with MiAmbiente, it was possible to find a way to manage the project funds and begin with the activities.
119. The presence, coordination, and permanent participation of MiAmbiente throughout the project’s implementation was essential to promote collaboration between national governmental institutions related to the handling of LMOs in Panama, since these institutions had worked, prior to the project, in the risk analysis of applications related to the use of LMOs in this country (as was the case of the application for the entry of a genetically modified corn variety or the genetically modified salmon), thus the project contributed to create a space for exchange and interaction. The project also promoted relations with research institutes (such as IDIAP and ICGES) that have capabilities that can contribute to the analysis of LMOs. This effective coordination resulted in entities such as ICGEB or Albatros Media Foundation being contracted to deliver several key outputs that contributed to accomplishing the project's goals.

120. The time taken for certain administrative processes such as the contracting of services by the executing agency, ROLAC, was long and cumbersome and this implied a delay in the execution of several activities. These difficulties in administrative management were mentioned mainly by one of the UNEP Task Managers, who pointed out that perhaps ROLAC did not have sufficient experience to carry out the EA function. However, the project coordinators and the person responsible for the project at MiAmbiente noted that ROLAC's administration of the project was relatively efficient, notwithstanding the fact that certain contracting processes took a long time to complete. The Mid Term Report refers to these administrative problems, mainly related to contractual processes (the so-called "Tiketetes")<sup>15</sup>. In the specific case of a project with so many difficulties to start, these delays become an extra burden for an efficient execution. The reviewer thinks it is important to rescue what is mentioned in the MTR that, between 2017 and 2018 the management team at ROLAC reviewed several administrative processes specifically with the objective of improving management time and efficiency. There was recognition of the importance of more efficient and effective administrative management and taking specific actions for improvement. This would confirm the reviewer's views during her visit to Panama, where it was observed that this project had its administrative challenges but there was also a positive attitude on the part of the EA to work towards improving this aspect.
121. The delay in the start of the project, the aforementioned administrative difficulties, and finally, the sanitary measures related to the Covid 19 pandemic caused the postponement and subsequent replanning of activities. All this resulted in a slower execution and the need to adapt the project's management, which adapted appropriately through different means and by requesting three extensions. These extensions were granted and were a positive factor for the achievement of outputs and consolidation of outcomes. The fact that a project that was initially planned for 4 years, achieved the completion of its technical activities in 11 years, achieving a good quantity and quality of outcomes and outputs reflects that there was the capacity and willingness of the persons/institutions in charge to implement the project and fulfill its objective. After reviewing the information from the interviews, all key stakeholders recognize the project's contribution to strengthening the national biosafety framework in Panama.

**Rating for Efficiency: Moderately Satisfactory**

## G. Monitoring and Reporting

**Finding 21.** The project is supported by a detailed Monitoring & Evaluation plan, which includes reporting requirements, and there is a reference to an allocated budget without much detail. There are no specifics on risk monitoring. Indicators are defined at the outcome level, but their formulation is weak and difficult for guiding project monitoring.

**Finding 22.** The project M&E plan served as a reference for project management and the preparation of adequate technical reports. Progress reporting was done in a timely manner, through annual Project Implementation Reviews and Quarterly Expenditure Reports. Monitoring did not include social aspects and therefore, no gender or other inclusiveness indicators were included.

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<sup>15</sup> Mid Term Report, 2020, Annex 4

## Monitoring Design and Budgeting

122. The ProDoc included a detailed presentation of the project's monitoring and evaluation (M&E) plan<sup>16</sup>. This included its budget, responsibilities, approach, and activities to be implemented during the project's execution. The plan covered monitoring, planning, stakeholder involvement, indicators, technical reporting, and mid-term and final reviews. The total estimated budget for all monitoring activities was: GEF funds: US\$69,100 + Co-financing: US\$31,280 = TOTAL M&E COSTS: US\$100,380, which did not include dedicated personnel. The estimated budget resulted too low and was enhanced to allow for the MTR and TR. The indicators used for monitoring are outcome level indicators. A number of indicators are defined, but their formulation is weak, they do not necessarily meet SMART<sup>17</sup> standards and are generally not a good basis for monitoring. To illustrate this, the reviewer will take as an example an indicator related to outcome 1.1. (Legal framework is completed and implemented, and areas requiring institutional strengthening are identified and addressed). The indicator was: "The legal framework for biosafety includes Environmental, Phyto and Zoo sanitary, Technical Norms (or Standards) covering confined use of LMOs, release into the environment, and production with LMOs". This indicator is too general and does not depend on the project's achievements, since it refers to a legal framework that is beyond the scope of a project's actions and depends on the decisions of the competent authorities. In addition, having indicators at the outcome level prevents them from being specific and from guiding the monitoring of how the outputs are being achieved. Therefore, the design of the M&E plan had shortcomings and these had an impact on monitoring activities, but they were a guide to review the established planning.
123. After analyzing the project documents, the reviewer does not support what was stated in the Mid Term Report<sup>18</sup>: "This challenge adds to the fact that PRODOC in its design does not establish an M&E mechanism for the project, nor does it suggest it as a properly funded initial activity, this would possibly have been an important elements of management and a mechanism to facilitate Successful achievements and project impacts, however, was not proposed". As mentioned, the M&E plan had its shortcomings, but a review of the project's PIRs shows that it did serve as a guide for monitoring and evaluation activities. The project coordinators implemented risk monitoring and made adjustments to the initial M&E plan, but it is inaccurate to say that the project's design did not include this plan.

## Monitoring of Project Implementation

### Project Reporting

124. The M&E plan was well implemented. There was no specific M&E officer but monitoring was the responsibility of the Project Coordinators, who were in charge of the oversight, gathering of information, and production of reports in coordination with the EA (MiAmbiente and ROLAC). The reviewer examined the periodic progress reports and project implementation reviews (PIR), and found them informative. The PIRs included narratives on project progress and detailed reporting on indicators, risk rating, and stakeholder engagement. The PIRs reported well how project monitoring informed adaptive management and changes were reported to the IA and EA. The ProDoc included a monitoring plan without risk management; however, during the execution of the project, the coordinator in charge of reporting the different periods included

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<sup>16</sup> Prodoc, Section 6 and Appendix 7

<sup>17</sup> SMART refers to results that are specific, measurable, achievable, relevant, and time-oriented. Indicators help to make results measurable.

<sup>18</sup> Mid Term Report, 2020, Section 3.3.

this component in the respective PIR and it could be noted that it was adequately applied in the monitoring of the project and satisfactorily reported in the PIRS.

125. Since the project was developed in GEF-5, there were no GEF core indicator targets defined at CEO endorsement. Based on the project reporting (PIR and final report), the reviewer identified the following GEF-7 core indicators in a retrospective manner:
- Core Indicator 3. Area of land restored.
  - Core indicator 4. Area of landscapes under improved practices (hectares; excluding protected areas).
  - Core indicator 5. Area of marine habitat under improved practices to benefit biodiversity (hectares, excluding protected areas).
  - Core Indicator 11. Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment.
126. It should be considered that the project's topic is biosafety related to the proper use and handling of LMOs, which has connotations in the conservation of biodiversity, agricultural production, local producers, land use, socioeconomic, and health aspects. Finding GEF-7 core indicators that apply directly to a biosafety project is challenging, but if one considers the aspects outlined above one can identify the implications that the introduction of LMOs may have on the environment, agricultural practices, local economy, and health. In this sense, the reviewer has chosen indicators that may be related to agriculture and aquaculture issues that have a relationship with the conservation of biodiversity and sustainable use of biological resources.
127. In general, the project did not include any quantitative result indicator on social aspects such as number of people benefitting or participating. Therefore, it also did not present data disaggregated for gender or marginalized groups. However, certain data in this regard can be obtained from the PIRs. For example, in the PIR 2021, which is a good reference because it reports a significant number of activities, the following is noted in Section 2.6: "The project has attempted to monitor gender balance and representation in its institutional strengthening, capacity building and overall project management and knowledge creation efforts:
- National Biosafety Commission (NBC composition): balanced gender representation with 60% of women in its composition
  - 2020-2021 stakeholder engagement efforts: 18 workshops mobilized 583 participants, including 382 women and 201 men".
128. The MTR was completed and many of its recommendations followed up and reported upon. However, several recommendations such as the one related to the creation of a secretariat or authority that would have the necessary administrative authority and technical capacity to deal with biosecurity-related issues on a permanent basis, with personnel dedicated 100% to this work, could not be implemented as it exceeded the scope of the project and the planned outputs, and was not applicable because it is clearly a recommendation for the Government of Panama but not for the completion of this project. On the other hand, the recommendations directly related to the project's activities to achieve the project outcomes and outputs were useful and contributed to its fulfillment, as for example the recommendations related to the biosafety web portal or the public awareness activities. Additionally, the recommendation on the extension of project implementation period, due to the Covid 19 pandemic, was positive and resulted in improved performance. The MTR was done late; only in April 2020, and the estimated closing date was March 2022. The present terminal review was completed in January 2024, almost two years after of the closure of the project's activities. Until December 2023 the financial closure had not been formally concluded due to a balance of approximately US\$40,000.



1. *Monitoring design and budgeting: “Moderately Unsatisfactory”*
2. *Monitoring of project implementation: “Moderately Satisfactory”*
3. *Project reporting: “Satisfactory”*

## H. Sustainability

**Finding 23.** Panama's national biosafety regulatory framework and this county's compliance with CPB obligations have been strengthened by the project. This constitutes a good basis for sustaining project results and progress towards impacts.

**Finding 24.** The sustainability and replicability of many project results depend on continued financial resources. There are public and private institutions committed to providing continued technical support and monitoring, but ongoing funding is needed. There is insufficient consolidation of a financial strategy and corresponding mechanisms to ensure sustainability.

**Finding 25.** The institutional sustainability at the NBC level has been strengthened and constitutes a positive enabling environment for sustenance of results. At the national level, although there is an expressed institutional interest to support the onward progress of impact at scale, coordination and collaboration between institutions is not optimal, due in part to the fact that biosafety is not a priority on the agenda of the institutions. There is no staff dedicated exclusively to this topic and there are no specific institutional units/areas in charge of the appropriate handling of LMOs in Panama.

### Socio-political Sustainability

129. Socio-political sustainability depends on the continuity of uptake and application of the tools and processes developed by the project. MiAmbiente, and in general all the institutions that are part of the NBC and the Intersectoral Committees on Environment, Agriculture, and Health, expressed their interest and commitment to continue working in the field of biosafety related to LMOs. Biosafety is a current issue because the continuous development of modern biotechnology will require a response from the countries for its proper handling. Panama, as a Party to the Convention on Biological Diversity and the Cartagena Protocol, will have to work to comply with these international agreements, which require sustainability at the political level, making an effort to ensure that this issue is in the attention of the competent authorities, and at the social level, so that the population has access to pertinent information that will allow it to form its own criteria on this subject. The project worked in public awareness and should continue to strengthen this area to achieve a better-informed population that can positively apply new technologies taking into account the welfare of biodiversity and national economy.

### Financial Sustainability

130. The project ends with various concluded activities that have generated a series of outcomes of different kinds: proposal of legal reforms, manuals, flowcharts of procedures, biosafety web portal, videos for outreach on LMOs, among others. Several of them are well-delivered but still incipient and need to be completed and consolidated. While human capacity is created and willingness to continue working on biosafety seems ensured, financial resources are still needed. While it is true that the national institutions in charge of biosafety have personnel working on this issue, there are no specific units within these institutions with full-time personnel working

exclusively on this topic. This requires political decision and financial resources. Therefore, while public institutions are willing to collaborate, their funding is limited. Addressing biosafety requires constant technical support and continued capacity building because modern biotechnology is constantly developing and requires regulations to monitor its correct application. Accordingly, an effort is required to ensure that biosafety activities carried out in Panama to be considered as financially sustainable.

### **Institutional Sustainability**

131. In general, the interaction that exists between government institutions that are part of the NBC and intersectoral committees lends to greater institutional sustainability in terms of their respective mandates to work on biosafety related to the handling of LMOs. Beginning with the leadership of MiAmbiente, which during the implementation of this project proved to be an important link to create a space for the exchange of ideas, needs, and opportunities, and continuing with the expressed commitment of other institutions such as MIDA, ARAP, MINSA, MIRE, and SENACYT, the reviewer believes that there are good opportunities to foster institutional sustainability and to consolidate the biosafety framework by strengthening collaboration ties with research institutes such as IDIAP and ICGES; and working to incorporate the academic sector, which can be a great ally in the sustainability of this issue due to its research activities that can guide the biosafety procedures to be undertaken. Considering the capacity-building activities carried out within the project, and the fact that their contribution to strengthening biosafety knowledge is unanimously recognized by all the members of the institutions involved, it would be interesting to find ways to continue with these initiatives that contribute to institutional sustainability. Therefore, the reviewer believes that overall institutional sustainability is moderately likely if the coordination and communication between the key stakeholders of this project are maintained.
132. The project has not developed a specific comprehensive sustainability plan to further consolidate results and enhance impact. Nevertheless, after listening to all the members of the institutions that are part of the NBC and intersectoral committees, and recognizing their engagement and enthusiasm to carry out activities related to biosafety such as risk analysis, completing the versions of the manuals that are still drafts, and finalizing the flowcharts so that they can be instruments that can be used for LMOS handling activities in Panama, it is evident that Panama does have personnel that can tackle this issue and that institutional support is required to achieve the required impact in this area.

**Rating for Sustainability: Moderately Likely**

1. *Socio-political sustainability: "Moderately Likely".*
2. *Financial sustainability: "Moderately Unlikely."*
3. *Institutional sustainability: "Moderately Likely".*

### **I. Factors Affecting Performance and Cross-Cutting Issues**

**Finding 26.** The project was managed professionally, with high quality, and committed staff. Good teamwork. Initial hiring was delayed, but eventually resolved.

**Finding 27.** The project governance relied on a Project Steering Committee that was limited to NBC members and UNEP representative with occasional input from other biosafety-related institutions. This committee met periodically throughout the project, and these

meetings generally coincided with NBC meetings. This committee contributed to the decision-making process for the project.

**Finding 28.** UNEP backstopping, particularly by the Task Manager, was effective and welcomed by the project team and partner institutions.

**Finding 29.** The participation of stakeholders at the local level (government institutions) and partners in execution (mainly service providers) was good and strengthened during project execution. Participation and cooperation with key stakeholders were maintained throughout project implementation. Inclusion of other partners at the national level was a challenge. Third parties (project beneficiaries) were progressively included during the project's implementation, and a certain level of engagement was achieved through the provision of information that benefited a given segment of the Panamanian population to improve their knowledge and understanding on biosafety.

**Finding 30.** The project did not have a clear gender strategy, but in practice did involve and empower women and youth.

**Finding 31.** The project worked on a communication and public awareness strategy. It developed a national biosafety web portal (<https://bioseguridad.gob.pa>) to exchange information, and carried out some outreach activities aimed at the general public to increase awareness of LMOs in the community.

### **Preparation and Readiness**

133. The project's design and the existence of the regional office—ROLAC—in Panama might have been expected to provide a local advantage to promote successful project preparation. Despite this advantage, the project experienced a significant delay in the inception of its implementation after GEF approval of the CEO due to changes in governmental institutions in Panama. It took time to find a solution for the financial management of the project, and after this was solved, there was a slowdown in the hiring of the necessary services to execute the project's activities, including the hiring of the project coordinator, which in turn affected the execution of the work plan. Fortunately, due to the project's design and institutional commitment, mainly from MiAmbiente, and the support of ROLAC, these drawbacks were offset and the project was able to complete most of the expected results and, ultimately, reach its objective.

### **Quality of Project Management and Supervision**

134. It is important to clarify that the project design never defined a Project Management Unit (PMU) as such, but a Project Management Unit<sup>19</sup> that should have been managed by a department of the former ANAM. Due to the changes in the institutional structure mentioned previously, there was no such unit within MiAmbiente to manage the project. It was only in the PIR of 2019 that the term PMU was mentioned, meaning the functions performed by the project coordinator. This coordinator would eventually also have had an assistant, and it could be considered that both would be the PMU for this project. However, this definition was not described in any of the documents analyzed by the reviewer. The Mid Term Report mentions the PMU but never defines to whom it refers. It is however understood that it refers to the project coordinator. In the PIRs from 2019 onwards, the activities of the "PMU" are separated from those of ROLAC, so from the reviewer's criteria, it is not possible to speak of a PMU as the team in charge of project management, but rather of a project coordinator (project manager) who, according to the interviews conducted, clearly coordinated his functions with the two co-executing agencies: MiAmbiente and ROLAC. In this sense, the project had two coordinators during its execution,

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<sup>19</sup> ProDoc, Section 4

both of whom were qualified professionals with experience in project management, and thanks to their efficient work, a dynamic and adequate implementation of the project was achieved.

135. The Steering Committee (SC) was composed of the members of the National Biosafety Commission, MiAmbiente, MINSA, MIRE, MIDA, MICI, ARAP, and SENACYT. On several occasions the meetings of the SC coincided with the NBC meetings, so not all of these meetings were attended by the Project Coordinator or the UNEP Task Manager. These meetings served to review the progress of project activities, make recommendations, find alternatives to problems, and support project initiatives. Undoubtedly, the interaction between the different institutions created a space for conversation and discussion that promoted debate and strengthened the project and the work on biosafety in Panama.
136. UN Environment Programme support was limited to support by the GEF Task Manager and administrative staff at the Regional Office for Latin America and the Caribbean in Panama (ROLAC). The collaboration with the Panama team has been considered optimal from all sides. In the specific case of this project, it should be mentioned that ROLAC was also the EA. Earlier in this report we described the challenges that ROLAC had to face in order to fulfill these functions, but finally it must be recognized that its action was crucial for the financial management, and therefore for the proper execution of the project. During the long and extended duration of this project there were four UNEP Task Managers (until the complete closing of the project). The information compiled during the interviews shows that each Task Manager surely had a different view of the project in relation to the challenges that had to be overcome, but in all of them it could be seen the commitment that they had during their time in charge. Incredible desire to overcome problems and achieve the execution of activities and results. This effort was acknowledged by MiAmbiente, which highlights the relevant contribution of UN Environment Programme to the implementation of the project.

### **Stakeholders Participation and Cooperation**

137. The project's design and institutional arrangements explicitly encouraged stakeholder participation and coordination. Efforts were made to build cross-sector linkages and participatory dynamics that are essential to ensuring a maximum impact by the project. The engagement of key stakeholders represented by NBC members and intersectoral committee members was high and contributed greatly to the results and impact of the project.
138. The participation of other stakeholders varied. Some research institutes, such as IDIAP and ICGES, were interested in participating and getting involved in project activities and in biosafety issues. The relationship with the academic sector was weak; some university representatives—mainly from the University of Panama—took part in project activities but did not get involved in the project, even though their participation would have been valuable given the project's topic and how academia can contribute to biosafety issues related to modern biotechnology, such as the analysis of LMOs. Neither was it possible to engage stakeholders such as Panama Canal Authority (ACP) and the National Customs Authority (ANA), despite the efforts made. According to the information obtained from the documents analyzed and the interviews, officials of these institutions are not interested in working on biosafety-related issues, nor is it part of their mandate. The role played by these two institutions in the transit of LMOs is important and this is undoubtedly a pending issue that the project did not achieve and that should be worked on in other biosafety-related initiatives.

### **Responsiveness to Human Rights and Gender Equality**

139. Gender mainstreaming was a weak point of the project. In the project's design there is hardly any mention of gender aspects or challenges. Something is described in section 3.11 where this text is found: "From the perspective of project operations, equal employment opportunities will

be given to men and women. Project activities and training will not discriminate against any particular group or gender, while target groups such as youth or private companies will receive special attention in the development of the communication strategy and awareness raising materials”.

140. The project lacked a specific aim or strategy to promote positive changes in attitudes, behaviors, and power relations between the different stakeholders, disaggregated by gender, age, or race. It did not have specific gender expertise, nor social indicators, and hardly collected gender disaggregated data. It can therefore be said that there was a lack of formal gender vision and strategy in the project design but that in practice the participation of women in committees and activities carried out was high and, in most cases, exceeded the percentage of men. This is reflected in some PIRs. For example, PIR 2021 describes in certain detail the actions carried out to tackle gender mainstreaming. For instance, it is reported: “The project has attempted to monitor gender balance and representation in its institutional strengthening, capacity building and overall project management and knowledge creation efforts”; “The project’s communicational campaign for the promotion of awareness, education and public participation in matters related to biosafety has integrated a gender sensitive approach by using inclusive language for written communications as well as visual and audio materials”. This shows the raising of awareness during project implementation to include this topic.

### **Environmental and Social Safeguards**

141. The topic of Environmental and Social Safeguards is considered in the ProDoc section 3.11. It is pointed out that the topic of LMOs is controversial and may have effects on different sectors of society. In its design, the project committed to establish mechanisms to enable public access to information, which is something that was accomplished partially within the outputs of components 4 and 5. The inclusion of socio-economic and cultural considerations into biosafety decision making is not specifically reported within the outcomes, mainly because this is something that goes beyond the scope of the project, but it can be mentioned that in the capacity-building workshops held, the topic of socio-economic considerations was discussed, and that it will depend on the decision makers to include these considerations in the regulatory processes in Panama. The goal of the project was to achieve a safe implementation of the biosafety framework in Panama that would contribute to avoid risks to biodiversity, human health, and national economy. In this sense, the project aimed to reach this goal.
142. Proper management of LMOs includes considerations to avoid impacts to the environment, especially considering the precautionary principle stated in both the CBD and the CPB. Panama, as a Party to these international agreements, has the mandate to ensure that environmental safeguards are incorporated into the implementation of all of its projects, especially in this specific project dealing with biosafety. In fact, Panama already includes the following points in its LMO analysis criteria<sup>20</sup>: “(i) Prohibiting the introduction in protected areas of LMO that may have adverse effects in biodiversity, human health; (ii) Restricting the use of LMOs in threatened, critical or vulnerable ecosystems and where endemic or endangered species exist”. In reviewing some of the project's PIRs, it was noted that the project design stipulation that no environmental impacts are foreseen during the project’s implementation was confirmed, and that the project intended—through institutional capacity building—to create an environment that facilitates effective biosafety decision-making that acknowledges environmental safeguards and incorporates the precautionary principle. In the context of the activities developed within the project, especially in the risk-analysis workshops, one of the central training topics was to

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<sup>20</sup> ProDoc, Section 3.11

understand the potential impacts and adverse effects of LMOs in biodiversity, ecosystems, and human health.

### **Country Ownership and Driven-ness**

143. The project's execution modality and institutional arrangements enable country ownership and driven-ness. As noted earlier, the level of institutional interest determined the actual levels of ownership. At the end of the project, the interest of the main key actors was evident since the institutions that are part of the NBC must continue working on the appropriate handling of LMOs and the recognition of the project's contribution in strengthening their capacities was acknowledged in all the interviews carried out. Likewise, the need to continue with biosafety capacity building activities to implement and update processes is something that Panama and the institutions in charge will have to implement with new initiatives or projects. The interest that key stakeholders have in biosafety shows ownership and is favorable for the sustainability of the project.

### **Communication and Public Awareness**

144. Components 4 and 5 are related to communication and public awareness. The biosafety subject implies that both regulators and the general public have access to reliable information so that the institutions involved in LMOS handling can properly carry out their functions and contribute to the education and public awareness of society's different sectors. In this sense, the project created a web portal (<https://bioseguridad.gob.pa>) with two objectives: to be a tool for communication and information exchange among the institutions that are part of the NBC, and to share information on biosafety related to LMOs with the general public. The web portal exists, but it is a weakness that since the end of the project there is no one to manage this portal and update the information. In addition, under component 5, articles and videos were produced to inform and educate the population on this topic. During the execution of the project, a photographic exhibition was also displayed to raise awareness of this topic among the public, mainly in Panama City. The above-mentioned initiatives reflect the valuable contribution of the project in communication and public awareness on biosafety, but these initiatives need to be reinforced to enhance knowledge on LMOs, modern biotechnology, and biosafety in this country.

### **Rating for Factors Affecting Performance and Cross-Cutting Issues:**

**Moderately Satisfactory**

1. *Preparation and Readiness: "Moderately Satisfactory".*
2. *Quality of Project Management and Supervision: "Moderately Satisfactory".*
3. *Stakeholders Participation and Cooperation: "Moderately Satisfactory".*
4. *Responsiveness to Human Rights and Gender Equality: "Moderately Unsatisfactory".*
5. *Environmental and Social Safeguards: "Moderately Unsatisfactory".*
6. *Country Ownership and Driven-ness: "Satisfactory".*
7. *Communication and Public Awareness: "Moderately Satisfactory".*

## VI. CONCLUSIONS AND RECOMMENDATIONS

### A. Conclusions

145. The reviewer concludes that the overall project performance is rated as "Moderately satisfactory". Despite some weaknesses, the project was conceptually and strategically well-designed. The project goal was highly relevant to contribute to an effective application of the CPB by implementing Panama's national biosafety regulatory framework, and to the global biosafety debate on the proper handling of LMOs to avoid risks to biodiversity, human health, and national economy. The approach of the project ensured effective participation and appropriation from key stakeholders. Important outcomes were achieved in terms of revising the legal framework, strengthening institutional capacity to evaluate and handle LMOs, improving the capacity of competent authorities to monitor and surveillance of LMOs, providing access to information on LMOs, and strengthening public awareness and education on biosafety issues. The outcomes led to an initial positive impact on strengthening the adequate handling of LMOs, strengthening the institutions in charge of biosafety, and supporting the effective implementation of the CPB in Panama. Although there is still work to be done in this area, there is an enabling environment for replication and scaling.
146. The project's execution was efficient, although there were significant delays in its inception due to changes in the Panamanian institutional administration and some delays in activities due to the external context. This led to no-cost project extensions, which ultimately helped to consolidate the project's outcomes. The project was well managed by a highly professional team that successfully interacted with key stakeholders to achieve the proposed outputs, although some of them were different from the expected ones. The strong participation of key stakeholders and the high-quality technical products were important factors for the success of the project. The project experienced some challenges in aligning with other stakeholders and ensuring their optimal participation because the biosafety topic did not fit with their duties. Many of the outputs were obtained jointly with the key stakeholders and national institutions that are committed to the project's legacy.
147. The sustainability of the project's results is rated as "Moderately Likely;" as well as social sustainability. The financial sustainability is moderately unsatisfactory due to the lack of a financial strategy, the economic impact of the Covid 19 pandemic, and institutional constraints that were outside of the project's control. Institutional sustainability is satisfactory due to the engagement of the national institutions that form the NBC and the intersectoral committees with the project. Monitoring and reporting were done well, although the project was weak in monitoring social aspects. The project benefitted different stakeholder groups and included women and youth, but this was not measured or reported sufficiently.
148. Based on the findings of the project, the reviewer draws the following specific conclusions:
- Conclusion 1. The project was relevant for Panama to comply with its obligations under the CPB and strengthen Panama's national biosafety regulatory framework. It was consistent with the plans and strategies of the GEF, UNEP, CBD, and national public institutions.
- Conclusion 2. Notwithstanding some weaknesses, the project was well designed, with good vertical and horizontal logic, inclusion of key stakeholders, and financial and budgetary planning. Several indicators did not meet SMART standards, social safeguards were not sufficiently developed, and the M&E plan had some limitations.
- Conclusion 3. The project had a duration of more than 10 years from approval to full closure, which implied challenges in its execution and adjustments in planning. There was a significant delay in its inception due to the transformation of ANAM into MiAmbiente, which posed major challenges in the administrative management of the project. The permanent commitment of MiAmbiente, the member institutions of the NBC and sectoral committees,

and the support of ROLAC were vital to bring the project forward in spite of these inconveniences.

Conclusion 4. The project generated a number of diverse results in a moderately satisfactory manner. Some of the outputs were generated differently than planned, which was a result of adequate adaptive management. These outputs contributed similarly to the outcomes. The collaboration and constant interaction with main stakeholders (NBC members) were key factors for the generation of quality outputs. An outreach and public awareness strategy contributed to enhance biosafety knowledge among the general public to some extent, and thus increased the number of project beneficiaries.

Conclusion 5. Regarding the outputs achieved, it is noteworthy to emphasize that some of them were partially achieved and that they should be completed for their full functionality and impact (versions of manuals, guidelines, and flowcharts need to reach the final versions and be adopted by the different national institutions).

Conclusion 6. The outcomes of the project were achieved with different levels of impact. The strongest outcome was definitely the strengthening of institutional capacities in biosafety through the capacity-building activities that were carried out on evaluation, handling, and monitoring of LMOs. As part of this outcome, the project generated a series of tools for Panama to strengthen and better implement its national biosafety framework.

Conclusion 7. After overcoming the administrative challenges that prevented the project from starting as planned, it was managed relatively efficiently, and attempts were made to make adequate use of time and financial resources. Despite this, during project execution there were also delays in the performance of some activities due to various administrative constraints and later due to the Covid 19 pandemic. The project absorbed these delays through appropriate adaptive management. Extensions were granted which contributed to the functioning of the project and the consolidation of results.

Conclusion 8. There is a favorable environment for the consolidation of the project's results and future impact generation because of the relevance of biosafety to ensure the appropriate use of modern biotechnology, which is in constant development. Considering that Panama is a country with high biodiversity and sustainable development needs, the implementation of modern but environmentally friendly technology is mandatory. Although financial sustainability is not assured, there is interest and institutional capacity. Therefore, it is required to continue working on the strengthening and comprehensive implementation of its regulatory framework.

Conclusion 9. The project was relatively well-executed by a team of experienced and qualified professionals. It was adequately supported by a steering committee formed by the members of the NBC and was backed effectively by UNEP.

Conclusion 10. The project managed to effectively include mainly the national institutions that are part of the NBC and intersectoral committees of agriculture, environment, and health in the project activities, which was key to generate results, create ownership, and provide institutional sustainability. The participation and inclusion of other public institutions and other sectors such as academia, the private sector, and NGOs was not successful during the project's implementation.

Conclusion 11. The project's M&E activities were developed and reported on the progress of the project. Progress reporting was done in a timely manner as of 2017, through annual Project Implementation Reviews and Quarterly Expenditure Reports. Weaknesses in the design of the monitoring and evaluation plan were compensated by the efficient monitoring and reporting performed by the project coordinators during the active implementation phase.



## B. Summary of project findings and ratings

149. The table below provides a summary of the ratings and findings discussed in Chapter 5. Overall, the project demonstrates a rating of Moderately Satisfactory.

### UNEP Evaluation Office Validation of Performance Ratings:

The UNEP Evaluation Office formally quality assesses (see Annex XI) management led Terminal Review reports and validates the performance ratings therein by ensuring that the performance judgments made are consistent with evidence presented in the Review report and in-line with the performance standards set out for independent evaluations.

The Evaluation Office assesses a Terminal Review report in the same way as it assesses the initial draft of a Terminal Evaluation report. It applies the following assumptions in its validation process:

- That what is being assessed is the contents of the report and the extent to which it makes a consistent and justifiable case for the performance ratings it records.
- That the consultant has, within the report, presented all the evidence that was made available to them.
- That the Review has been based on a robust Theory of Change, reconstructed where necessary, which reflects UNEP’s definitions at all levels of results.
- That the project team and key stakeholders have already reviewed a draft version of the report and provided substantive comments and made factual corrections to the Review Consultant, who has responded to them. The Evaluation Office assumes, therefore, that it has received the Final (revised) version of the report.

In this instance the Evaluation Office finds validates the overall project performance rating at the ‘**Moderately Satisfactory**’ level.

**Table 10: Summary of project findings and ratings**

| Criterion  | Summary assessment   | Rating   | Justification for any ratings’ changes due to validation (to be completed by the UNEP Evaluation Office – EOU) | EOU Validated Rating |
|--|--|----------|--|----------------------|
| <b>Strategic Relevance</b>   |  | <b>S</b> | <b>Rating validated</b>  | <b>S</b>             |
| 1. Alignment to UNEP MTS, POW and Strategic Priorities                               | The project was aligned with UNEP’s MTS 2014-17 and corresponding POW, and subsequent MTS and POW during its implementation. In the MTS 2014-17, the project would be framed under the strategy focused on environmental governance. | S        | Rating validated   | S                    |
| 2. Alignment to Donor/GEF/Partner’s strategic priorities                             | The project objectives and strategies are aligned with policies and plans of UN Environment Programme, GEF, CBD, and CPB.  | HS       | Rating validated   | HS                   |
| 3. Relevance to global, regional, sub-regional and national environmental priorities | The design and actions of the project are consistent with the needs of the Panamanian State in terms of biosafety related to the appropriate handling of LMOs in order to  | S        | Rating validated   | S                    |

| Criterion   | Summary assessment   | Rating    | Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)   | EOU Validated Rating |
|---|--|-----------|--|----------------------|
|   | safeguard biodiversity, health, and national economy. The project's design also considered aspects contained in current legislation, and Panama's obligations to comply with international agreements such as the CBD and CPB.   |           |  |                      |
| 4. Complementarity with relevant existing interventions/coherence | The project developed different technical tools, manuals in preparation, and flow charts that contribute so far to the functioning of Panama's National Biosafety System through its NBS and intersectoral committees and thus support the effective implementation of the CPB in this country.  | S         | Rating validated   | S                    |
| <b>Quality of Project Design</b>                                  | The project was well designed, with good vertical and horizontal logic, indicators that do not always meet SMART standards, and a monitoring and evaluation plan with some limitations, good stakeholder inclusion and some consideration of social and environmental impacts for project beneficiaries. Indicators were presented at the outcome level, which were aggregated to the objective level. Some outcomes did not fully reflect the activities to generate them.        | <b>MS</b> | <b>Rating validated</b>  | <b>MS</b>            |
| <b>Nature of External Context</b>                                 | Administrative changes in government institutions constitute an external factor that influenced project implementation. ANAM was transformed into a ministry: MiAmbiente. The project adapted strategically to this change, but it entailed delays in the project's inception and challenges for its administration. Another major contextual event was the pandemic outbreak of COVID-19, which caused operational problems and resulted in delays and re-planning of activities. | <b>MU</b> | Although administrative changes affected the project implementation, and consequently caused delays, these cannot be considered a major and unexpected disrupting event (compared with conflict, natural disaster, political upheaval) to justify a rating of 'Moderately Unfavourable'. Covid-19 is also indicated to have "caused major operational problems for the project and resulted in delays and re-planning of activities". However, the project was approved in September 2011 with an initial planned duration of four years. The project was then extended three times to 2021. Therefore, Covid-19 only affected the last two years of implementation. Rating adjusted to 'Moderately Favourable'. | <b>MF</b>            |
| <b>Effectiveness</b>  |  | <b>MS</b> | <b>Rating validated</b>  | <b>MS</b>            |
| 1. Availability of outputs  | The project achieved a majority of its planned outputs, both in terms of quantity and quality. A few outputs were achieved differently than planned because the project activities were adapted to changes in the context.   | MS        | Rating validated   | MS                   |

| Criterion  | Summary assessment  | Rating    | Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)   | EOU Validated Rating |
|--|---|-----------|--|----------------------|
| 2. Achievement of project outcomes                       | The outcomes according to the five components defined in the project were generally achieved in a moderately satisfactory manner. It is noted that the most successful outcome was the one related to the strengthening of institutional capacity to evaluate and manage LMOs (Outcome 2), and probably the one that needed to be better developed was the one related to public awareness, education, and participation in biosafety-related issues (Outcome 5). | MS        | Rating validated   | MS                   |
| 3. Likelihood of impact                                  | The project contributed substantially to its strategic objective through a series of training activities. It helped to strengthen Panama's national biosafety regulatory framework and thereby contribute to the effective implementation of the Cartagena Protocol and to safeguarding the country's biodiversity.   | L         | The limited evidence on the causal pathways and on whether the drivers and assumptions hold do not justify a rating of 'Likely'. Moreover, the evidence does not support that the most important outcomes to attaining the intermediate states, such as Outcome 1 and 3, were fully achieved. For Outcome 1, the review noted that "the legal reforms or the enforcement of manuals or flowcharts that were produced within the project [still] need approvals from the competent authorities." For Outcome 3, the review noted that there is still "no established monitoring procedures or response measures in case of accidents with LMOs, which reflects that there is no system for vigilance and monitoring of LMOs in Panama." Rating adjusted to 'Moderately Likely'. | ML                   |
| <b>Financial Management</b>                              | .   | <b>MS</b> | Satisfactory is the average of the three sub-criteria ratings. Rating adjusted to 'Satisfactory'.  | <b>S</b>             |
| 1. Adherence to UNEP's financial policies and procedures | The project followed UNEP's financial policies and procedures, as stipulated in the Project Cooperation Agreement (PCA) signed between UNEP and the former ANAM in October 2013.  | S         | Rating validated   | S                    |
| 2. Completeness of project financial information         | The financial information provided was quite comprehensive. Administration and reporting followed UNEP expenditure categories and presented budget revisions and periodic expenditure reports.  | MS        | Rating validated   | MS                   |

| Criterion   | Summary assessment  | Rating    | Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)   | EOU Validated Rating |
|---|---|-----------|--|----------------------|
| 3. Communication between finance and project management staff | The communication between the Finance and Project Management staff resulted in the effective and efficient management of the project. Expenditures were reported every three months as of 2017, which contributed to the timely and accurate financial status of the project.   | S         | Rating validated   | S                    |
| <b>Efficiency</b>   | The project collaborated effectively mainly with national governmental institutions, with national research institutes, and with external entities that contributed to the generation of project outcomes. The project had a serious delay in its implementation, caused by administrative problems that prevented a timely inception and later by the Covid 19 pandemic. It had to adapt to several changes and contextual factors but management eventually adapted to these changes. | <b>MS</b> | The project received three no-cost extensions which resulted in the project reaching operational completion five years after the planned end date. Rating adjusted to 'Moderately Unsatisfactory'.   | <b>MU</b>            |
| <b>Monitoring and Reporting</b>                               |   | <b>MS</b> | <b>Rating validated</b>  | <b>MS</b>            |
| 1. Monitoring design and budgeting                            | The ProDoc presented a detailed Monitoring & Evaluation plan, which includes reporting requirements and there is a reference to an allocated budget without much detail. There are no specifics on risk monitoring. Indicators were defined at the outcome level, but their formulation was weak and difficult for guiding project monitoring.  | MU        | Rating validated   | MU                   |
| 2. Monitoring of project implementation                       | The project's M&E plan served as a reference for project management and the preparation of adequate technical reports. Monitoring did not include social aspects and therefore, no gender or other inclusiveness indicators were included.  | MS        | Rating validated   | MS                   |
| 3. Project reporting  | Progress reporting was done in a timely manner, through annual Project Implementation Reviews and Quarterly Expenditure Reports.  | S         | Rating validated   | S                    |
| <b>Sustainability</b>   |   | <b>ML</b> | The weighted ratings approach of the Evaluation Office aggregates the three sub-categories of sustainability to the lowest of the three – this is because they are considered to be mutually limiting. Rating adjusted to 'Moderately Unlikely'. | <b>MU</b>            |

| Criterion  | Summary assessment   | Rating    | Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU)   | EOU Validated Rating |
|--|--|-----------|--|----------------------|
| 1. Socio-political sustainability                | Socio-political sustainability depends on the continuity of uptake and application of the tools and processes developed by the project. MiAmbiente, and in general all the institutions that are part of the NBC and the Intersectoral Committees on Environment, Agriculture, and Health, expressed their interest and commitment to continue working in the field of biosafety related to LMOs. Biosafety is a current issue because the continuous development of modern biotechnology will require a response from the countries for its proper handling.  | ML        | Rating validated   | ML                   |
| 2. Financial sustainability                      | The continuation and replicability of many project results is dependent on continued financial resources. There are public and private institutions committed to providing continued technical support and monitoring, but ongoing funding is needed. There is insufficient consolidation of a financial strategy and corresponding mechanisms to ensure sustainability.   | MU        | Rating validated   | MU                   |
| 3. Institutional sustainability                  | The institutional sustainability at the NBC level has been strengthened and constitutes a positive enabling environment for sustenance of results. At the national level, although there is an expressed institutional interest to support the onward progress of impact at scale, coordination and collaboration between institutions is not optimal, due in part to the fact that biosafety is not a priority on the agenda of the institutions, there is no staff dedicated exclusively to this topic, and there are no specific institutional units/areas in charge of the appropriate handling of LMOs in Panama. | ML        | Rating validated   | ML                   |
| <b>Factors Affecting Performance</b>             |  | <b>MS</b> | <b>Rating validated</b>  | <b>MS</b>            |
| 1. Preparation and readiness                     | The project design and the existence of the regional office, ROLAC, in Panama might have been expected to provide a local advantage to promote successful project preparation. Despite this advantage, the project experienced a significant delay in the inception of its implementation after GEF approval of the CEO due to changes in governmental institutions in Panama.   | MS        | Rating adjusted to 'Moderately Unsatisfactory' given the long inception phase of the project and the significant delay between the project approval (August 2011) and first disbursement of funds (August 2014). | MU                   |
| 2. Quality of project management and supervision | The project was well managed despite all the problems encountered in its inception and subsequent execution. Supervision was satisfactory. The Steering Committee supported the implementation of the project.   | MS        | Rating adjusted to 'Satisfactory' based on the weighted ratings approach of the Evaluation Office.   | S                    |
| 2.1 UNEP/Implementing Agency:                    | UN Environment Programme support was limited to support by the GEF Task Manager and administrative staff at the Regional Office for Latin America and the Caribbean in Panama (ROLAC). The collaboration with the Panama team has been considered optimal  | S         | Rating validated   | S                    |

| Criterion   | Summary assessment  | Rating    | Justification for any ratings' changes due to validation (to be completed by the UNEP Evaluation Office – EOU) | EOU Validated Rating |
|---|---|-----------|--|----------------------|
|   | from all sides. In the specific case of this project, it should be mentioned that ROLAC was also the EA.  |           |  |                      |
| 2.2<br><i>Partners/Executing Agency:</i>              | The EA initially should have been the former ANAM, but due to the institutional changes that took place in Panama when MiAmbiente was established, the project had to look for a way out for its administration. Therefore, in order to execute the project it had to request the support of ROLAC for the administrative and financial management as EA, and MiAmbiente as EA in charge of the technical part of the project. These arrangements posed challenges but finally allowed the implementation of the project. | MS        | Rating validated   | MS                   |
| 3. Stakeholders' participation and cooperation        | The participation of stakeholders at the local level (government institutions) and partners in execution (mainly service providers) was positive and strengthened during the project's execution. Participation and cooperation with key stakeholders were maintained throughout project implementation. Inclusion of other partners at the national level was a challenge. Third parties (project beneficiaries) were progressively included during the project's implementation.  | MS        | Rating validated   | MS                   |
| 4. Responsiveness to human rights and gender equality | The project did not have a clear gender strategy, expertise, objectives, or monitoring. In practice, the project did involve and empower women and youth.   | MU        | Rating validated   | MU                   |
| 5. Environmental and social safeguards                | Social and environmental safeguards were considered at design but poorly monitored and reported upon. Few social benefits or possible impacts were planned or monitored.  | MU        | Rating validated   | MU                   |
| 6. Country ownership and driven-ness                  | The project execution modality and institutional arrangements enable country ownership and driven-ness. The level of institutional interest determined the actual levels of ownership. At the end of the project, the interest of the main key actors was evident since the institutions that are part of the CNB must continue working on the appropriate handling of LMOs.  | S         | Rating validated   | S                    |
| 7. Communication and public awareness                 | The project worked on a communication and public awareness strategy. It developed a national biosafety web portal ( <a href="https://bioseguridad.gob.pa">https://bioseguridad.gob.pa</a> ) to exchange information and carried out some outreach activities aimed at the general public to increase awareness of LMOs in the community.  | MS        | Rating validated   | MS                   |
| <b>Overall Project Performance Rating</b>             |   | <b>MS</b> | <b>Overall Rating validated</b>  | <b>MS</b>            |

## C. Lessons Learned

150. Observing the positive and challenging experiences of this project, and those that could be replicated in similar contexts, the reviewer identified the following lessons learned:

|                           |  |
|---------------------------|--|
| <b>Lesson Learned #1:</b> | The delay between the approval of a project and the inception of its activities may have an impact on the established objectives, outcomes, and outputs because the delay may represent changes in the national and international environment.   |
| <b>Context/comment:</b>   | This project was approved by the GEF in 2011 but its active phase started in 2017, six years after its approval. The context of the project in 2011 in relation to the treatment of biosafety related to LMOs in the national debate was different than in 2017. The attention to this topic at the government level was also different. Although this matter is still valid until today, the perspectives and the challenges to be met change over time. Therefore, it would have been positive if there had been a stated rethinking and adjustment of outputs and outcomes for the benefit of the project's impact (Finding 5, 19; Conclusion 3). |

|                           |   |
|---------------------------|---|
| <b>Lesson Learned #2:</b> | Different SMART indicators are needed along the project's impact pathway (output, outcome and impact).  |
| <b>Context/comment:</b>   | This project was not designed with good quality indicators. Although indicators are presented in the project's design, they were not well formulated and did not necessarily meet the standards of a SMART indicator (specific, measurable, achievable, relevant, and time-oriented) and many of them did not serve to measure the project's performance. In the absence of good quality indicators, the achievement of results, outputs, and impact cannot be evaluated objectively (Finding 4, Conclusion 2). |

|                           |  |
|---------------------------|--|
| <b>Lesson Learned #3:</b> | Optimal stakeholder participation is essential to generate the planned outcomes and meet the project's goal.   |
| <b>Context/comment:</b>   | In this project, the continuous participation of key stakeholders contributed to achieving the project's goal: to strengthen the national biosafety framework in Panama and contribute to the country's effective compliance with the CPB. However, the participation of other stakeholders was difficult to coordinate, with little participation from academia, the private sector, and NGOs. This is a pending issue that should be considered in new biosafety initiatives. It is important to note that the project generated a space for dialogue and interaction among the institutions that are part of the NBC (key stakeholders) and this is very positive for the |

|  |   |
|--|---|
|  | sustainability of the treatment of this topic in Panama (Findings 8, 15, 29; Conclusion 2). |
|--|---|

|                           |   |
|---------------------------|---|
| <b>Lesson Learned #4:</b> | The outcomes and outputs planned to be achieved in a project should be directly related to the project's possibilities and not depend on political decisions external to the project.   |
| <b>Context/comment:</b>   | The project design established certain outcomes and outputs whose achievement did not depend exclusively on the efforts made by a project. Legal reforms, adoption of laws, and regulatory processes and procedures do not depend on the will of the project's executors or participants. This is a consideration that should be reviewed when replicating initiatives related to strengthening a governmental framework, in this case, of the national biosafety framework in Panama (Findings 9, 11, 14, 23; Conclusions 1, 6). |

|                           |  |
|---------------------------|--|
| <b>Lesson Learned #5:</b> | Capacity-building activities enable the achievement of products and results, especially when a project involves technological development that requires regulation for its appropriate application.  |
| <b>Context/comment:</b>   | The activities of components 1, 2 and 3 were mainly based on capacity-building activities to contribute to the achievement of the declared outputs and outcomes. Capacity building is definitely a key tool, especially in projects related to scientific and technological development such as modern biotechnology and the regulation that accompanies these developments, in this specific case, biosafety related to LMOs. This lesson is positive and demonstrates the importance of replication in new initiatives of this type. However, a relevant comment is that as such capacity-building activities are a tool and not the product itself. This is something that in some cases was assumed in this project and should be better evaluated in other occasions (i.e. a flowchart product of a workshop is not necessarily the flowchart that is applied in a national regulatory process) (Finding 10, Conclusion 6). |

|                           |   |
|---------------------------|---|
| <b>Lesson Learned #6:</b> | Access to information of good quality and education and public awareness campaigns are key elements to promote risk assessment processes and to foster a well-informed population on biosafety issues.  |
| <b>Context/comment:</b>   | The project generated a web portal for the exchange of information related to LMOs, whose information should be updated and should serve as a management tool in the risk-assessment processes among the institutions in charge of this topic (institutions that form the NBC). In the same way, new initiatives should work on the impact and behavioral change of public awareness campaigns on controversial topics such as those related to LMOs. It is not enough to develop products (videos, exhibitions) but to analyze their real impact (Finding 31, Conclusion 4). |



|                           |  |
|---------------------------|--|
| <b>Lesson Learned #7:</b> | In the absence of a clear application of a gender approach, opportunities to strategically plan and monitor the participation and empowerment of women, youth, and disadvantaged groups are lost.  |
| <b>Context/comment:</b>   | The project did not have a clear gender strategy, plan, or indicators. The project's reporting on gender achievements was marginal. Therefore, it was not clear what and how the project addressed gender inclusion, differentiation of stakeholder groups (by gender, age, ethnicity, or disability), and its positive results were not adequately highlighted or communicated. Despite this, in project activities, including SC meetings and decision making, women's participation was very well represented. In most of the training courses the number of women outnumbered men, but this is not well identified in the project reporting and is not seen as an impact (Findings 22 and 30). |

#### D. Recommendations

151. Based on the review's findings and conclusions, the reviewer developed the following recommendations for future activities or initiatives to increase the sustainability of project results, likelihood of achieving impact, or replication. The project completed its formal activities in 2022, but its TR was completed in January 2024, so it is advised that the recommended activities be developed and reported by the end of 2024.

|   |   |
|---|---|
| <b>Recommendation #1:</b>                                       | MiAmbiente as the EA in charge of the technical part of this project plays a crucial role in institutional sustainability. Considering that the project succeeded in creating a space for dialogue and exchange between key stakeholders (members of the NBC), it is recommended that MiAmbiente continues to actively participate in the NBC meetings and promote the implementation of the project's outputs to contribute to the strengthening of the biosafety procedures related to the proper handling of LMOs. |
| <b>Challenge/problem to be addressed by the recommendation:</b> | Institutional sustainability  |
| <b>Priority Level:</b>  | Opportunity for improvement   |
| <b>Type of Recommendation</b>                                   | Partners  |
| <b>Responsibility:</b>  | MiAmbiente  |
| <b>Proposed implementation time-frame:</b>                      | Until the end of 2024   |

152. Cross-reference(s) to rationale and supporting discussions: Findings 10, 11, 23, 25. Conclusions: 4, 5, 6.

|   |   |
|---|---|
| <b>Recommendation #2:</b>                                       | One of the key elements for correct management and decision making in the field of biosafety is access to information. This is a fundamental pillar within the CPB that establishes the BCH and urges the countries' parties to work on this matter. Since this project is framed within this international agreement, and its objective was related to the effective application of the CPB, it is recommended that MiAmbiente make the necessary efforts to activate and update the information on the web portal developed by the project in order to promote access to information for decision makers and institutions in charge of risk assessments, and to contribute to the knowledge on biosafety in the general public. |
| <b>Challenge/problem to be addressed by the recommendation:</b> | Access to information   |
| <b>Priority Level:</b>  | Opportunity for improvement   |
| <b>Type of Recommendation</b>                                   | Partners  |
| <b>Responsibility:</b>  | MiAmbiente  |
| <b>Proposed implementation time-frame:</b>                      | Until the end of 2024   |

153. Cross-reference(s) to rationale and supporting discussions: Findings 9, 12, 13, 31. Conclusions: 4, 11.

|   |  |
|---|--|
| <b>Recommendation #3:</b>                                       | For the specific execution of this project, and due to the challenges presented for its administrative and financial management, the strategy adopted to overcome this situation was to select ROLAC as the EA for its administrative management. This implied an internal EA for the project. It is recommended that UNEP analyze this experience and see if this model is recommendable or not for the execution of future projects. |
| <b>Challenge/problem to be addressed by the recommendation:</b> | EA: project administrative management  |
| <b>Priority Level:</b>  | Opportunity for improvement  |
| <b>Type of Recommendation</b>                                   | Project Level  |
| <b>Responsibility:</b>  | UNEP   |

|  |                       |
|--|-----------------------|
| <b>Proposed implementation time-frame:</b> | Until the end of 2024 |
|--|-----------------------|

154. Cross-reference(s) to rationale and supporting discussions: Findings 5, 19, 20. Conclusions: 3, 7.

|   |   |
|---|---|
| <b>Recommendation #4:</b>                                       | This project is framed within the implementation of an international agreement: the Cartagena Protocol on Biosafety to the Convention on Biological Diversity. The different GEF projects implemented through UNEP have strengthened the capacities of countries to respond to their obligations within this protocol and have supported countries to have the tools needed to appropriately manage biosafety related to LMOs. Modern biotechnology continues to develop and present regulatory challenges for its proper application. In this regard, and due to the implications that this matter has for biodiversity conservation, sustainable use, and health and socioeconomic aspects, UNEP may wish to talk with the Secretariat of the CBD to learn about the needs or challenges that countries continue to face in dealing with these technological developments and to explore new initiatives to support them. |
| <b>Challenge/problem to be addressed by the recommendation:</b> | Strengthening of capacities for the effective implementation of CPB   |
| <b>Priority Level:</b>  | Opportunity for improvement   |
| <b>Type of Recommendation</b>                                   | Project Level   |
| <b>Responsibility:</b>  | UNEP  |
| <b>Proposed implementation time-frame:</b>                      | Until the end of 2024   |

155. Cross-reference(s) to rationale and supporting discussions: Findings 3, 9, 14, 23. Conclusions: 1,6, 8.

## ANNEX I. RESPONSE TO STAKEHOLDER COMMENTS

**Table 11: Response to stakeholder comments received but not (fully) accepted by the reviewers, where appropriate**

| Ref (page, paragraph or table):                    | Stakeholder comment  | Reviewer Response   |
|--|--|---|
| Pag. 6<br>Acronyms;<br>Par. 49, 116;<br>Table 1,5. | AUPSA (Panamanian Food Safety Authority)<br><br>“Esta institución ya no existe”                      | The reference to this institution is in ProDoc and in all project documents because this institution was part of the key stakeholders and one of the project's co-financing institutions, but this institution is dissolved in 2021 and the APA (Panamanian Food Agency) is created. APA's functions are more related to food production and trade, and it is associated with the MICI, so as such is no longer part of the institutions involved in biosafety. The interviewees highlighted this fact and said that the functions of the former AUPSA related to biosafety were taken over by MIDA or MINSAs, depending on the subject to be addressed. It is important for the reviewer to point out this fact. |
| Pag. 6<br>Acronyms                                 | ANAM (National Environmental Authority)<br><br>“Esta institución ya no existe y ahora es MiAmbiente” | The fact that ANAM no longer exists and that it is now MiAmbiente has been mentioned throughout the final report, however in some places in the report it is necessary to refer to ANAM because in the design of the project it was this institution that prepared this proposal and signed the PCA.  |

## ANNEX II. REVIEW FRAMEWORK

**Table 12: Review Framework**

| Review Criteria   | Review Indicators  | Means of Verification   |
|---|--|---|
| <b>A. STRATEGIC RELEVANCE</b>   |  |   |
| 1. To what extent were project objectives and implementation strategies consistent with:<br>(a) UNEP's mandate and policies at the time?<br>(b) the GEF Biodiversity focal area, strategic priorities and operational programme(s)? and<br>(c) national environmental priorities? | Degree of alignment with UNEP, GEF and national policies   | ProDoc, annual reports. Interviews with UNEP staff, project team and governmental agencies. Recalling Quality of Project Design Assessment. |
| 2. To what extent were efforts made to ensure the project was complementary to other interventions, and synergies could be optimized from the project partners and /or other stakeholders?  | Indication of synergies and complementarities achieved   | ProDoc, Interviews, project progress reports/PIR; MTR; workshop reports   |
| 3. To what extent were project objectives and implementation strategies realistic, given the timeframe, budget, baseline situation and national contexts?   | Quality of project design; project delivery trends and performance; percent of objectives achieved | ProDoc, interviews, project progress reports/PIR; amendments; MTR; terminal reporting   |
| 4. What would have happened in the absence of the GEF project? What would be the situation of the NBF in Panama?  | Indication of baseline scenario and project achievements   | Interviews  |
| <b>B. QUALITY OF PROJECT DESIGN</b>   |  |   |
| See section 4 and Annex A of this Inception Report  |  |   |
| <b>C. NATURE OF EXTERNAL CONTEXT</b>  |  |   |
| 5. Did the (political, environmental, social, institutional) context change during project implementation and how did the project adapt to this?  | Management measures reported in response to changes that occurred                                  | Project progress reports/PIR. Interviews with project team and key stakeholders   |
| <b>D. EFFECTIVENESS</b>   |  |   |
| <i><b>i. Delivery of outputs</b></i>  |  |   |
| 6. How successful was the project in producing the programmed outputs, both in quantity and quality, as well as their usefulness and timeliness?  | Output level indicators of Results Framework (RF)  | Project progress reports /PIR, tangible products, interviews with project coordinators and  |

|   |  |  |
|---|--|--|
|   |  | organizations that were involved in project implementation.  |
| 7. Were key stakeholders appropriately involved in producing the programmed outputs?  | Stakeholders' reported contribution to the achievement of the outputs  | Project progress reports /PIR, MTR, terminal reporting, interviews with project key stakeholders and project beneficiaries |
| 8. What were the main reasons that led to a satisfactory or unsatisfactory generation of outputs?   | Factors mentioned by stakeholders that explained the generation of outputs   | Project progress reports /PIR, MTR; terminal reporting, interviews with project key stakeholders and project beneficiaries |
| 9. To what extent is there a sense that the project strengthened the NBF in Panama? To what extent did the project contribute to the proper management of LMOs in Panama? Is there evidence that the project's actions helped to prevent the adverse effects that LMOs could have?  | Number of government institutions participating in the NBF and guidelines for LMO risk assessment and risk management developed. | Project progress reports /PIR, interviews, MTR; workshop reports; terminal reporting.                                      |
| 10. Did the COVID - 19 pandemic affect the generation of project outputs?   | Number and type of constraints identified  | Project progress reports /PIR, interviews, MTR, terminal reporting   |
| <b>ii. Achievement of direct outcomes</b>   |  |  |
| 11. To what extent were the project outcomes achieved, namely:<br><b>Outcome 1.1:</b> The basis for completing and implementing the legal framework exists, and areas requiring institutional strengthening are identified and addressed.<br><b>Outcome 1.2:</b> Panama's compliance with the Cartagena Protocol, including participation in the BCH, is coordinated, visible and integrated within competent authorities.<br><b>Outcome 2:</b> Strengthened institutional capacity to evaluate and manage LMOs in different activities.<br><b>Outcome 3:</b> Competent authorities have improved their ability to track authorized LMOs, to enforce regulations, and to respond to unintentional releases of LMOs.<br><b>Outcome 4:</b> Access to Information on LMOs and how they should be managed provides regulators and stakeholders with the information they need to perform their functions.<br><b>Outcome 5:</b> Public awareness, education and participation in biosafety-related issues are strengthened, which improves the quality of the debate on biosafety. | Evidence of project implementation results in relation to the objectives   | Project progress reports /PIR, interviews MTR; workshop reports; terminal reporting; biosafety policies /guidelines        |
| 12. To what extent was the project an important initiative to achieve effective implementation of the CPB through the implementation of Panama's national biosafety framework and the development of national capacities to properly manage LMOs for the safeguarding of biodiversity?  | Degree of progress towards the implementation of Panama's national biosafety framework   | Interviews with project team, national agencies, other project partners, MTR; workshop reports; terminal reporting         |
| 13. To what extent can the outcomes obtained (as described in question 10) be directly attributed because of the project's actions?   | Level of confirmation or agreement on the degree of contribution   | Project progress reports /PIR, interviews MTR; workshop reports; terminal reporting; biosafety policies /guidelines        |
| <b>iii. Likelihood of impact</b>  |  |  |

|  |   |   |
|--|---|---|
| 14. To what extent has the project contributed to consolidate the national biosafety framework in Panama?  | Indicators of the project's objective. Likelihood of sustainability of the Impact.                                  | Project progress reports /PIR, interviews with project team, national agencies, other project partners, MTR; terminal reporting; biosafety guidelines |
| 15. To what extent has the project helped to promote institutional changes, changes in behavior or perception, policy changes?   | Identified changes in institutional behavior and public perception regarding the management and acceptance of LMOs. | Project progress reports/PIR. Interviews with project team, key stakeholders  |
| 16. Are there areas of work dedicated to biosafety within public institutions that have continued after the end of the project? How likely is it that they will continue in the medium and long term?                                  | Number of active biosafety work areas beyond the project's duration   | Project progress reports/PIR, interviews terminal reporting   |
| 17. What potential follow-up initiatives would be needed to sustain the project's impact?  | Type of follow-up initiatives identified  | Interviews with project team, key stakeholders, project beneficiaries   |
| <b>E. FINANCIAL MANAGEMENT</b>   |   |   |
| 18. Was financial information and communication between financial and project manager and coordinator complete and transparent?  | Thorough financial reporting  | Interviews with administrative support agency (ROLAC), and with project technical manager/project coordinator, financial reports                      |
| 19. To what extent were planning, management and financial information (recruitment of project team, evaluation) clear and transparent to ensure that the project and its stakeholders have sufficient and timely financial resources? | Quality of standards for financial and operative management   | Interviews with administrative staff and service providers, financial reports   |
| 20. To what extent co-financing has materialized as expected at project approval?  | Level of co-financing, related to original planning   | Financial reports of the project, interviews with project administrative agency (ROLAC) and project technical manager.                                |
| <b>F. EFFICIENCY</b>   |   |   |
| 21. Did the project adequately consider the lessons learned from Panama's two previous biosafety projects and use existing data sources from key institutions on this topic?   | Level of inclusion of lessons learned from previous projects and use of pre-existing data                           | ProDoc, interviews with key stakeholders (previous projects), assessment of project design  |
| 22. How was the operational execution vs. original planning (budget wise)? Was the project implemented cost effective?   | Level of compliance with project financial planning, annual plans   | Project financial reports, interviews with project administrative agency (ROLAC).   |
| 23. Were there events /activities that could have been sequenced differently for better results delivery? (coherency of project workplan).   | Number and type of workplan revisions and their justifications  | Project progress reports/PIR, interviews, terminal reporting  |
| 24. What obstacles did the project face that led to the need to extend its original duration? Did the delay in implementation affect project Outcomes? Could these delays have been avoided?   | Number and type of obstacles detected; evolution of project execution compared to the originally planned timeframe. | Project progress reports/PIR, interviews with project administrative and technical agencies, project coordinators, MTR, terminal reporting            |
| 25. Was adaptive management applied adequately? Was any cost- or timesaving measure put in place in attempting to bring the project as far as possible in achieving its results within its budget and time?                            | Measures taken to improve project implementation based on project monitoring and evaluation.                        | Project progress reports/PIR, MTR, interview with project administrative and technical agencies, project coordinators                                 |

| <b>G. MOINITORING AND REPORTING</b>   |   |  |
|---|---|--|
| 26. To what extent was the project M&E plan viable, Outcome-based and included SMART indicators?  | Quality of project design, indications of viability of M&E plan, level of achievement of indicators                             | ProDoc, MTR, interviews, periodic reports; terminal reporting  |
| 27. Was the M&E system operational and did it facilitate timely tracking of results and progress towards project objectives during the project implementation period? Were the results used to improve project performance and adapt to changing needs? How did the project perform against the initially stated objectives?            | Level of implementation of M&E system. Changes in project implementation as result of MTR or other project requirements         | PIR; interviews with key stakeholders, response to MTR suggestions   |
| 28. How did project team monitors the participation of disaggregated groups (gendered, marginalized or vulnerable groups, including those living with disabilities) in project activities?  | Number of disaggregated groups who participated in project activities, indications of disaggregated monitoring in reports.      | Interviews, periodic reports; terminal reporting   |
| 29. Did monitoring lead to adaptive management and contribute to resolving implementation problems?   | Evidence of, technical or management decisions based on monitoring, adaptive management decisions                               | Interviews, periodic reports, terminal reporting   |
| 30. Were PIR reports, half-yearly Progress & Financial Reports complete and accurate?   | Level of completeness of reports  | Progress reports/PIR   |
| <b>H. SUSTAINABILITY AND REPLICATION</b>  |   |  |
| <b><i>i. Socio-political sustainability</i></b>   |   |  |
| 31. Are there any social or political factors that may influence positively or negatively the sustenance of project results and progress towards impacts?   | Key factors that positively or negatively influenced project outcomes   | Project progress reports/PIR, interviews with project team, key stakeholders                                   |
| 32. How likely is it that the project executing institution, the government institutions that were part of the project or other stakeholders will undertake individual capacity building efforts to strengthen the NBF in Panama?   | indication of likelihood of individual capacity building efforts, capacity development plans                                    | Interviews, capacity building plans (if available)   |
| <b><i>ii. Financial sustainability</i></b>  |   |  |
| 33. To what extent does the continuation of project results and their eventual impact depend on financial resources? What is the likelihood that sufficient financial resources will be available to continue the implementation of the programs, plans, monitoring systems, risk analysis, etc. prepared and agreed under the project? | Estimates of financial needs. Estimates of the future budget of the key stakeholders.   | Interviews with project team and key stakeholders, institutional budgets (if available); new funding proposals |
| <b><i>iii. Institutional sustainability</i></b>   |   |  |
| 34. How likely is it that the institutional policies, frameworks, structures, capacities or collaborations strengthened by the project will be maintained over the time to continue to support efforts for the adequate management of LMOs in Panama?   | Indications on the likelihood of maintaining capabilities, personnel allocations, budget to pursue biosafety-related activities | Interviews, institutional plans, policies, budgets or agreements (if available)                                |
| 35. How likely are executing partners, government institutions, other stakeholders to continue institutional capacity building efforts aimed at strengthening CPB implementation in Panama?   | Evidence of capacities remaining in place, institutional plans, policies, budget, staff allocations                             | Interviews, institutional plans, policies, budgets or agreements (if available)                                |



| <b>I. FACTORS AND PROCESSES AFFECTING PROJECT PERFORMANCE</b>  |  |  |
|--|--|--|
| <b><i>i. Preparation and readiness:</i></b>  |  |  |
| 36. Was the project ready for implementation after project approval? Were adequate measures taken to address weaknesses in the project design or to respond to changes that occurred between project approval, the securing of funds and project mobilization?             | Time between project approval, first disbursement and actual implementation (first technical activity). Measures taken to address weaknesses in order to respond to changes. | First PIR/Progress reports, MTR and project inception reporting (quality of project design). Interviews with project coordinators and executing agencies |
| <b><i>ii. Quality of project management and supervision:</i></b>   |  |  |
| 37. Was the project management (project technical manager, project administrative manager, project coordinators) adequate, effective and efficient? (skills, leadership, coordination, adaptive capacity)? How well did they adapt to changes during the project lifetime? | Quality of project management and supervision<br>Level of satisfaction (among key stakeholders and project team) of overall management by project managers                   | Interviews with project team (managers, coordinators and key stakeholders), periodic reports, MTR, terminal reporting                                    |
| 38. To what extent did the project management ensure good relations, coordination and productive communications with stakeholders?   | Indications of the value attributed to the management of the project by the institutions involved in the project.  | Interviews, periodic reports, MTR, terminal reporting  |
| 39. Did the project face any operational or institutional constraints that influenced its implementation? If yes, please explain. Were these identified, communicated and overcome opportunely? (i.e. before affecting the project)  | Number and type of constraints identified, number and type of corrective measures taken  | Interviews, periodic reports, MTR, terminal reporting  |
| 40. How effective and efficient was UNEP's project supervision as GEF Agency? (includes monitoring, reporting, risk management, and participation in project meetings)   | Indications of the value attributed to UNEP's oversight role, recommendations involving UNEP's Task Manager  | Interviews, periodic reports, MTR, terminal reporting  |
| <b><i>iii. Stakeholder participation, cooperation and partnerships</i></b>   |  |  |
| 41. To what extent did the project achieve effective stakeholder participation and/or collaboration?   | Level of participation of project stakeholders in project design and actual inclusion in project implementation arrangements   | ProDoc, progress reports/PIR, interviews with key stakeholders, communication strategy and records of strategic communication activities                 |
| 41. To what extent were stakeholders involved in:<br>(a) project design<br>(b) the sharing of lessons learnt from the project, and<br>(c) the sharing of expertise and technical knowledge, or the pooling of resources?   | Quality of project design, degree of stakeholder involvement, knowledge or resources shared  | ProDoc; periodic reports, interviews, workshop reports; terminal reporting   |
| <b><i>iv. Responsiveness to human rights and gender</i></b>  |  |  |
| 42. To what extent were gender issues and the inclusion of minority groups considered in the project's activities and results?   | Indications of gender /minority group considerations   | Interviews, periodic reports, MTR, workshop reports, terminal reporting  |
| <b><i>v. Country ownership and driven-ness</i></b>   |  |  |
| 43. How well did the key stakeholders take ownership of the project and provide adequate support for its implementation?   | Indications of process ownership and leadership exercised by key stakeholders  | Project progress reports/PIR, interviews, periodic reports, terminal reporting, documented endorsements and cofinancing                                  |

|  |  |  |
|--|--|--|
| <p>44. To what extent did the participation of key stakeholders:</p> <p>(a) enriched the work of the project (e.g., quality of outputs, project progress, recognition of human rights)? and</p> <p>(b) opened up new avenues for greater stakeholder participation?</p>        | <p>Value attributed to the contributions and collaboration of the key stakeholders</p>                 | <p>Interviews, periodic reports, MTR, workshop reports; terminal reporting</p>   |
| <p><b><i>vi. Communications and public awareness</i></b></p>   |  |  |
| <p>45. How successful was the project in knowledge management and in creating public awareness (learning exchange between/among project stakeholders and beneficiaries)? What were the main challenges and successes related to knowledge management and public awareness?</p> | <p>Achievements and challenges identified in relation to knowledge management and public awareness</p> | <p>Interviews, periodic reports, workshop reports, reports of public awareness activities undertaken, terminal reporting</p> |

### ANNEX III. PEOPLE CONSULTED DURING THE REVIEW

**Table 13: People consulted during the Review.**

| Organization            | Name                     | Position/Involvement in Project   | Gender |
|-------------------------|--------------------------|---|--------|
| MiAmbiente              | Israel Tejada            | Project Technical Coordinator/ EA   | M      |
| MiAmbiente              | Jose Victoria            | Director of Protected Areas   | M      |
| ROLAC                   | Andrea Brusco            | Program Officer/ EA   | F      |
| ROLAC                   | Eduardo Visuete          | Program Assistant/ EA   | M      |
| UNEP-GEF/MiAmbiente     | George Hanily            | First Project Coordinator   | M      |
| UNEP-GEF/MiAmbiente     | Laura Valverde           | Second Project Coordinator  | F      |
| GEF-Panama (MiAmbiente) | Raúl Pinedo              | Operational Focal Point   | M      |
| ARAP                    | Thelma Quintero          | Jefa Departamento de Desarrollo/ Miembro NBC/ Comité Sectorial Agropecuario                                     | F      |
| ARAP                    | Cilini Arosemena         | Subdirectora de Investigación y Desarrollo / Comité Sectorial Agropecuario                                      | F      |
| ICGEB                   | Wendy Craig              | Group Leader -Regulatory Science/ Organizer Capacity Building Workshops   |        |
| MIDA                    | Judith Vargas            | Miembro NBC/ Comité Sectorial Agropecuario  | F      |
| MIRE                    | Bolívar Cañizales        | Miembro NBC   | M      |
| UNEP-GEF                | Robert Erath             | Current UNEP – GEF Task Manager (GEF Biodiversity and Land Degradation Unit Ecosystems Division)/ IA            | M      |
| UNEP-GEF                | Gloritzel Frangakis Cano | Programme Management Assistant (GEF Biodiversity and Land Degradation Unit Ecosystems Division)/ IA             | F      |
| MICI                    | Maybe Armes              | Asesora Legal. Miembro suplente NBC   | F      |
| MICI                    | Michael Troesch          | Director General de Normas y Tecnología Industrial. Miembro principal NBC                                       | M      |
| UNEP-GEF                | Thais Narcisco           | Former UNEP - GEF Task Manager – Latin America (GEF Biodiversity and Land Degradation Unit Ecosystems Division) | F      |
| MINSA                   | Aracellis de Vergara     | Miembro NBC / Comité sectorial de Salud   | F      |
| MINSA                   | Angel Guardia            | Miembro Comité Sectorial de Salud   | M      |

| Organization | Name                | Position/Involvement in Project   | Gender |
|--------------|---------------------|---|--------|
| UNEP-GEF     | Tea Garcia-Huidobro | Former UNEP - GEF Task Manager – Latin America (GEF Biodiversity and Land Degradation Unit Ecosystems Division) | F      |
| UNEP-GEF     | Rastislav Vrbensky  | Consultant  | M      |
| IDIAP        | Carmen Bieberach    | Miembro Comité Sectorial Agropecuario   | F      |
| IDIAP        | Axel Villalobos     | Miembro Comité Sectorial Agropecuario (suplente)  | M      |
| SENACYT      | Luz Cruz            | Bióloga/ Miembro NBC (suplente)   | F      |
| ICGES        | Yamitzel Zaldívar   | Miembro Principal Comité Sectorial de Salud   | F      |
| UNEP-GEF     | Marianela Araya     | Former UNEP - GEF Task Manager – Latin America (GEF Biodiversity and Land Degradation Unit Ecosystems Division) | F      |

## ANNEX IV. INTERVIEW PROTOCOL

Virtual interviews and in-person interviews were performed during the visit to Panama. They were a central element of the review and a key tool for data collection, particularly qualitative data. The following Interview Protocol served as a guide for the reviewer during the information compilation process. It presents an exhaustive list of questions that were asked to the interviewees partially or completely according to each case.

### ***Guidelines for developing questions:***

- Questions can be open-ended to obtain extensive and descriptive answers (qualitative approach). Closed questions (that can be answered with a "yes" or "no" or using a graded ranking system) will lead to more quantitative results.
- It is important to avoid bias by preventing leading questions, particularly with topics as polarizing as biosafety and modern biotechnology.
- Interview questions should be concise—as brief and specific as possible—and also neutral, to avoid raising positive or negative associations.
- Attention will be paid to gender-driven tendencies in responses to review questions; a comparative analysis can be provided if clear differences emerge.
- Although it is assumed that respondents will have a similar level of understanding of biosafety and modern biotechnology, care will be taken to use generic terms and phrases that all respondents should understand and interpret similarly, regardless of cultural background, age, gender, etc.

### ***Interview guide:***

When organizing questions for an interview, the reviewer would:

- Start with earlier events and move on to more recent ones.
- Start with the simplest topics and move on to the more complex ones.
- Group questions on each topic.
- Within topics, start with the more concrete issues and move to the more abstract ones.
- Begin with the less sensitive issues and move to the more challenging ones.

### ***Oral vs. Written***

Interviews will be mainly oral but may also include written parts. Interviews may be preceded or followed by written questions via e-mail. The combination of oral and written interviews is especially useful when numerous questions need to be asked, and then this combination of oral and written allows a more balanced approach and allows interviewees to provide more detail/specificity in their responses.

### ***Printed aids (oral interviews):***

The consultant will have at hand printed material of project elements and contents to support him/her during the interviews. Printed materials may include, but are not limited to:

- the reconstructed TOC
- results framework
- the review framework
- budgets and workplan

**Recording devices (oral interviews):**

No audio or video recording devices will be used during in-person oral interviews. For virtual oral interviews, consent to record will be requested. All information will be recorded by hand, on paper or in digital format. Interviewees will be informed that their responses are being recorded.

**Potential interview questions:**

The interview questions are based on the Review Framework (Annex II), which will be the main tool and guide for all interviews. The questions are formulated to meet specific review criteria. Depending on the interviewee, it will be determined which questions from the Review Framework should be asked.

In general, interviews will begin with the introduction of the consultant and the interviewee. The interviewee will be asked about the institution or organization to which he/she belongs and the role or relationship he/she had in the project. Then, depending on the interviewee, the questions to be asked will be selected. In addition, the table below will be used to get a clearer idea of the outcomes and outputs obtained in the project. It will also be revised if any of the strategic questions mentioned in the ToRs of this Terminal Review need to be addressed. Finally, closing questions will be addressed, asking the interviewee if he/she has any additional comments and thanking him/her for his/her participation.

**Table. - Outcome and output achievement**

| <b>Outcome and output</b>  | <b>Achieved or not</b> | <b>Comments</b> |
|--|------------------------|-----------------|
| <b>Outcome 1.1.</b> The basis for completing and implementing the legal framework exists, and areas requiring institutional strengthening are identified and addressed   |                        |                 |
| <b>Output 1.1.1.</b> Draft regulations specific for confined use, environmental release, and production with LMOs, as well as procedures for dealing with cases of liability and redress, review of decisions, and LMOs in transit |                        |                 |
| <b>Output 1.1.2.</b> Agreed administrative processes between competent authorities with accompanying manuals   |                        |                 |
| <b>Outcome 1.2.</b> Panama's compliance with the Cartagena Protocol, including participation in the BCH, is coordinated, visible and integrated within competent authorities   |                        |                 |
| <b>Outcome 1.2.1.</b> Updated biosafety information posted on the BCH to comply with Art. 20 (BCH) and Art. 23 (Public Awareness and Participation)  |                        |                 |
| <b>Outcome 1.2.2.</b> Timely and coordinated responses to notifications and requirements from CPB Secretariat  |                        |                 |
| <b>Outcome 2.</b> Strengthened institutional capacity to evaluate and manage LMOs in different activities  |                        |                 |

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|---|--|--|
| <b>Output 2.1.</b> Technical personnel designated and trained to handle LMO cases, information, and applications.   |  |  |
| <b>Output 2.2.</b> Risk assessment protocols and decision-making criteria for different activities that use LMOs  |  |  |
| <b>Output 2.3.</b> Legal agreements (contracts or memorandums of understanding (MOU)) to advise competent authorities.  |  |  |
| <b>Output 2.4.</b> Mock decisions for different LMO types with accompanying assessment of gaps and needs (eg. capacity gaps /training needs, procedural constraints, registry/information needs, etc) and Action Plan to address them |  |  |
| <b>Outcome 3.</b> Competent authorities have improved their ability to track authorized LMOs, to enforce regulations, and to respond to unintentional releases of LMOs  |  |  |
| <b>Output 3.1.</b> Initial diagnosis and analysis of specific LMO monitoring capacity gaps and needs.   |  |  |
| <b>Output 3.2.</b> Institutional mechanisms and budgets for LMO inspection, tracking and monitoring   |  |  |
| <b>Output 3.3.</b> Draft guidelines to be applied in cases of unintentional or illegal releases of LMOs.  |  |  |
| <b>Output 3.4.</b> Personnel trained to detect and monitor LMOs   |  |  |
| <b>Outcome 4.</b> Access to Information on LMOs and how they should be managed provides regulators and stakeholders with the information they need to perform their functions   |  |  |
| <b>Output 4.1.</b> Tools available for systematized and secure handling of LMO data.  |  |  |
| <b>Output 4.2.</b> Official information on LMOs of relevance to biosafety decision making.  |  |  |
| <b>Output 4.3.</b> Outreach Materials and Publications  |  |  |
| <b>Outcome 5.</b> Public awareness, education, and participation in biosafety-related issues are strengthened, which improves the quality of the debate on biosafety  |  |  |
| <b>Output 5.1.</b> Annual biosafety outreach program and its implementation.  |  |  |

|   |  |  |
|---|--|--|
| <p><b>Output 5.2.</b> Alliances and partnerships to access biosafety training courses, and to support biosafety outreach activities</p> |  |  |
| <p><b>Output 5.3.</b> Tools to facilitate public participation in biosafety and biotechnology activities</p>                            |  |  |

**Strategic questions addressed in the ToR of the Terminal Review**

Q1: To what extent has the project achieved an effective application of the Cartagena Protocol on Biosafety, implemented the national biosafety regulatory framework, and developed national capacities to properly handle LMO to safeguard biodiversity?

Q2: What impact has been achieved by actors engaged in the project moving on and deploying their knowledge in novel areas?

How were the lessons learned used in applying agile and adaptive management of the project?

Q3: What changes were made to adapt to the effects of COVID-19, and how might any changes affect the project's performance?

Q4: How effectively has the project addressed MTR recommendations?



## ANNEX V. KEY DOCUMENTS CONSULTED

### Project Design Documents

- CEO Endorsement request, August 2011
- Request For CEO Endorsement/Approval, December 2010
- Project Document (Prodoc); 2011 including 15 appendices.
- GEFSEC Review, June 2012
- GEF Review sheet, January 2011
- GEF Endorsement letter(signed), September 2011
- Letter from ANAM to UNEP (PCA signed-submission), October 2013
- Panama BS\_PCA Ammendment No.1, May 2016
- PCA\_Amendment 02\_Panama Biosafety\_countersigned. June 2019
- Project extension, May 2016
- Country request for ROLAC's support, June 2016

### Project Progress documents

- Mid Term Review Report, September 2020
- Project Implementation Reviews (PIR): 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
- Project budget revisions (11 revisions)
- Project workplan (5 documents 2018-2021)
- Periodic expenditure reports (2013-2021, quarterly reporting since 2017)
- Co-financing template at MTR, September 202
- Final technical report; October 2023
- Tracking Tool for Biodiversity Projects in GEF-4 and GEF-5, August 2012

### Project Products related documents

- A number of documents from the capacity building workshops carried out were reviewed when available, such as:
  - Risk and Management Analysis on GMO Workshop, December 2018
- Several documents related to the project activities were reviewed on the web portal developed by the project (i.e. videos)
  - <https://bioseguridad.gob.pa/videos>
- Several SSFA were reviewed with the providers of services for the elaboration of products such as ICGEB, Albatros Media (documents available on the Anubis platform).

\*Other documents pertinent to the Terminal Review found in the Anubis platform under the sections of Initial Documents, Technical Documents, Other Documents, Terminal Documents, Periodic Documents were reviewed and analyzed according to specific information needs during the preparation of the final report.

## Reference documents

- Terms of Reference for the Terminal Review, September 2023
- Evaluation of the UNEP Subprogramme on Ecosystem Management, May 2015
- GEF Guidelines on Core Indicators and Sub-Indicators, June 2018
- UNEP Medium Term Strategy 2014 -2017
- UNEP Medium Term Strategy 2018 - 2021
- Medium Term Strategy 2022 – 2025. The United Nations Environment Programme strategy for tackling climate change, biodiversity, and nature loss, and pollution and waste from 2022 – 2025.

## ANNEX VI. REVIEW ITINERARY

The mission to Panama City took place between November 20 and 23, 2023.

Weeks prior to the visit, the mission was coordinated mainly by Israel Tejada, Technical Manager of the project, and Gloritzel Frangakis Cano, Programme Management Assistant, in order to establish an efficient itinerary of visits and to be able to interview as many persons related to the project as possible.

The interviews were focused on the key stakeholders, which are the members of the NBC and the members of the intersectoral agriculture and health committees, since, according to the project's technical manager, these were the persons who participated most actively in the project's activities and who were aware of the project's performance.

The idea of the visit to Panama City was to perform these interviews in person, but unfortunately on the days of the mission, Panama was going through a long period of national protests which caused road closures and depending on the day and time some planned interviews had to be changed to online mode. This was clearly an inconvenience beyond the control of the reviewer and the persons who helped organize this visit.

The great cooperation of all the persons interviewed, who openly and clearly shared their opinion on the development of the project, was outstanding. They all dedicated the necessary time to answer all the questions prepared by the reviewer and added information according to each of their experiences. The information gathered during the visit was enriching and essential for the elaboration of the final report.

The table below shows the schedule of visits/interviews carried out during the mission to Panama City.

| <b>AGENDA VISITA A PANAMA</b>           |  |  |
|---|--|--|
| 20 al 23 de noviembre 2023              |  |  |
| <b><u>Día 20 noviembre - Lunes</u></b>  | <b>Persona/institución</b>                   | <b>Correo electrónico</b>  |
| <u>9.00 – 10:30</u>                     | THELMA QUINTERO Y CILINI<br>AROSEMENA - ARAP | <a href="mailto:tquintero@arap.gob.pa">tquintero@arap.gob.pa</a><br><a href="mailto:cilini.rosemena@arap.gob.pa">cilini.rosemena@arap.gob.pa</a> |
| <u>11.00 – 13.00</u>                    | BOLIVAR CAÑIZALES- MIRE                      | <a href="mailto:bcañizales@mire.gob.pa">bcañizales@mire.gob.pa</a>   |
| <u>13.00 – 14.00</u>                    | Lunch  |  |
| <u>14.00 – 17.00</u>                    | RAUL PINEDO -MIAMBIENTE                      | <a href="mailto:rpinedo@miambiente.gob.pa">rpinedo@miambiente.gob.pa</a>   |
| <b><u>Día 21 noviembre - Martes</u></b> |  |  |
| <u>8.00 – 10.00</u>                     | JUDITH VARGAS -MIDA                          | <a href="mailto:jvargas@mida.gob.pa">jvargas@mida.gob.pa</a> ;<br><a href="mailto:judithvargas066@gmail.com">judithvargas066@gmail.com</a>       |

|  |   |  |
|--|---|--|
| <u>10.30 – 12.00</u>                       | MAYBE ARMES Y MICHAEL<br>TROESCHT - MICI          | <a href="mailto:marmes@mici.gob.pa">marmes@mici.gob.pa</a><br><br><a href="mailto:mtroeschtt@mici.gob.pa">mtroeschtt@mici.gob.pa</a>                 |
| <u>12.00 – 1.00</u>                        | Lunch   |  |
| <u>1.30 – 3.00</u>                         | ARACELLIS DE VERGARA Y ANGEL<br>GUARDIA - MINSA   | <a href="mailto:aadevergara@minsa.gob.pa">aadevergara@minsa.gob.pa</a>   |
| <u>3.00 – 5.00</u>                         | ISRAEL TEJADA - MIAMBIENTE                        | <a href="mailto:itejada@miambiente.gob.pa">itejada@miambiente.gob.pa</a>   |
| <b><u>Día 22 noviembre - Miércoles</u></b> |   |  |
| <u>8.00 – 9.30</u>                         | AXEL VILLALOBOS Y CARMEN<br>BIEBERACH - IDIAP     | <a href="mailto:villalobos.axel@gmail.com">villalobos.axel@gmail.com</a><br><a href="mailto:cybieberach@gmail.com">cybieberach@gmail.com</a>         |
| <u>11.00 – 13.00</u>                       | ANDREA BRUSCO Y EDUARDO<br>VISUETE – UNEP (ROLAC) | <a href="mailto:andrea.brusco@un.org">andrea.brusco@un.org</a><br><br><a href="mailto:eduardo.visueteosorio@un.org">eduardo.visueteosorio@un.org</a> |
| <u>13.00 – 14.00</u>                       | Lunch   |  |
| <u>14.00 – 17.00</u>                       | ROBERT ERATH Y<br><br>GLORITZEL FRANGAKIS – UNEP  | <a href="mailto:robert.erath@un.org">robert.erath@un.org</a><br><br><a href="mailto:gloritzel.frangakis@un.org">gloritzel.frangakis@un.org</a>       |
| <b><u>Día 23 noviembre – Jueves</u></b>    |   |  |
| <u>9.00 – 11.00</u>                        | LUZ CRUZ -SENACYT                                 | <a href="mailto:lcruz@senacyt.gob.pa">lcruz@senacyt.gob.pa</a>   |
| <u>11.00 – 13.00</u>                       | YAMITZEL ZALDIVAR - ICGES                         | <a href="mailto:yzaldivar@gorgas.gob.pa">yzaldivar@gorgas.gob.pa</a>   |

**ANNEX VII. PROJECT BUDGET AND EXPENDITURES**

| Budget Component |   | Initial budget<br>(Actual start,<br>2013) <sup>21</sup> | Budget Revision<br>(End, December<br>2021) <sup>22</sup> |
|------------------|---|---|--|
| <b>10</b>        | <b>NATIONAL PROJECT COMPONENT</b>                         |   |  |
| <b>1100</b>      | <b>Project Personnel</b>                                  |   |  |
| 1101             | National Project Coordinator                              | 96,000.00   | 121,200.00   |
| 1102             | Project Staff   | 0.00  | 0.00   |
| 1120             | Administrative Staff                                      | 0.00  | 57,979.85  |
| <b>1200</b>      | <b>Consultants</b>  |   |  |
| 1201             | International Consultants                                 | 132,000.00  | 90,231.38  |
| 1202             | National Consultants                                      | 198,600.00  | 211,046.79   |
| <b>1600</b>      | <b>Travel</b>   |   |  |
| 1601             | Staff Travel & Transport                                  | 20,100.00   | 9,715.71   |
| <b>1999</b>      | <b>SUB-TOTAL (NATIONAL PROJECT)</b>                       | <b>446,700.00</b>                                       | <b>490,173.73</b>  |
| <b>20</b>        | <b>SUB CONTRACT COMPONENT</b>                             |   |  |
| <b>2200</b>      | <b>Sub Contract for Supp. Org. (MOUs/LAs)</b>             |   |  |
| 2201             | Sub Contract to governmental agencies                     | 0.00  | 0.00   |
| <b>2300</b>      | <b>Sub Contract for Commercial Purposes</b>               |   |  |
| 2301             | Sub Contract to private firms                             | 153,800.00  | 200,000.00   |
| <b>2999</b>      | <b>SUB-TOTAL (SUB CONTRACT)</b>                           | <b>153,800.00</b>                                       | <b>200,000.00</b>  |
| <b>30</b>        | <b>TRAINING COMPONENT</b>                                 |   |  |
| <b>3200</b>      | <b>Group training</b>                                     |   |  |
| 3201             | Training  | 164,000.00  | 63,276.95  |
| <b>3300</b>      | <b>Meetings/Conference</b>                                |   |  |
| 3301             | Meetings  | 108,927.00  | 20,650.75  |
| <b>3999</b>      | <b>SUB-TOTAL (TRAINING)</b>                               | <b>272,927.00</b>                                       | <b>83,927.70</b>   |
| <b>40</b>        | <b>EQUIPMENT AND PREMISES COMPONENT</b>                   |   |  |
| <b>4100</b>      | <b>Expendable equipment</b>                               |   |  |
| 4101             | Office supplies and consumables                           | 2,000.00  | 51.74  |
| 4102             | Laboratory supplies and consumables                       | 0.00  | 0.00   |
| <b>4200</b>      | <b>Non-expendable equipment</b>                           |   |  |
| 4201             | Non Laboratory Purchase                                   | 0.00  | 17,040.05  |
| 4202             | Laboratory Equipment                                      | 0.00  | 32,000.00  |
| <b>4300</b>      | <b>Premises</b>   |   |  |
| 4301             | Office Premises   | 0.00  | 0.00   |
| 4302             | Research Facilities                                       | 0.00  | 0.00   |
| <b>4999</b>      | <b>SUB-TOTAL (EQUIPMENT AND PREMISES)</b>                 | <b>2,000.00</b>   | <b>49,091.79</b>   |
| <b>50</b>        | <b>MISCELLANEOUS COMPONENT</b>                            |   |  |
| <b>5100</b>      | <b>Operation and maintenance equipment</b>                |   |  |
| 5101             | Equipment maintenance                                     | 1,800.00  | 12.00  |
| <b>5200</b>      | <b>Reporting Costs</b>                                    |   |  |
| 5201             | Publication, Translation, Dissemination and reporting cos | 21,000.00   | 84,255.92  |
| 5202             | Audit Reports   | 14,000.00   | 0.00   |
| <b>5300</b>      | <b>Sundry</b>   |   |  |
| 5301             | Communications (tel, fax, e-mail, etc..)                  | 3,000.00  | 133.10   |
| 5302             | Others  | 13,700.00   | 560.00   |
| 5303             | Technical Support   | 26,000.00   | 46,200.00  |

<sup>21</sup> As reported in Anubis document: #1 Rephasal end 2013 Budget Revision, 24/06/2014

<sup>22</sup> As reported in Anubis document: #11 Budget Revision, 06/12/2021

|             |                                  |                   |                   |
|-------------|----------------------------------|-------------------|-------------------|
| 5375        | UNDP charges                     | 0.00              | 572.76            |
| <b>5999</b> | <b>SUB-TOTAL (MISCELLANEOUS)</b> | <b>79,500.00</b>  | <b>131,733.78</b> |
| <b>9999</b> | <b>GRAND TOTAL</b>               | <b>954,927.00</b> | <b>954,927.00</b> |

**Note:** To illustrate the changes in the use of resources according to the implementation of the project, the reviewer chose to present data from the first budget review, since it coincides with the beginning of the project, and from the last review at the end of the project

## ANNEX VIII. BRIEF CV OF THE REVIEWER

Name: Maria de Lourdes Torres

|                           |  |
|---------------------------|--|
| <b>Profession</b>         | Molecular Biologist, Professor/Researcher/Consultant   |
| <b>Nationality</b>        | Ecuador  |
| <b>Country experience</b> | <ul style="list-style-type: none"><li>Americas: Ecuador, Colombia, Perú, Uruguay, Brasil, Venezuela, Paraguay, Chile, Argentina, Panama, El Salvador, Nicaragua, Honduras, México, Guatemala</li></ul> |
| <b>Education</b>          | <ul style="list-style-type: none"><li>PhD in Plant Molecular Biology</li></ul>   |

### Short biography

María de Lourdes Torres completed her PhD studies in Plant Molecular Biology at the Freie Universität Berlin (Germany). She is a professor at the College of Biological and Environmental Sciences (COCIBA), Universidad San Francisco de Quito (Ecuador). She is Vice-Dean of the COCIBA, Coordinator of the Biotechnology Area and Director of the Plant Biotechnology Lab. She directs and takes part in research projects mainly related to in vitro culture and molecular characterization, using molecular and genomic markers of plant species of interest to Ecuador. She also maintains collaborations with national and international researchers in projects involving genetic analysis of animal species and bacterial consortia. She has experience in policy development on access to genetic resources and biosafety in relation to the use and management of genetically modified organisms and modern biotechnology.

### Current appointments:

Member of the AHTEG on Risk Assessment. Cartagena Protocol on Biosafety – Convention on Biological Diversity  
Adjunct Professor. Biology Department, University of North Carolina at Chapel Hill (United States)  
Advisory Board Member. Galapagos Science Center (USFQ - UNC)  
Advisory Board Member. World Wildlife Fund (WWF, Ecuador)

### Biosafety and Biotechnology

For more than 20 years I have worked in the field of biosafety at national and regional levels in Latin America. I have been a consultant for the elaboration of policies on biosafety, regulations on Living Modified Organisms (LMO), genetic resources, laws on food sovereignty, among others. I have been the official delegate of Ecuador to several COP-MOPs of the Cartagena Protocol on Biosafety (CPB), and was also the official delegate of Ecuador during the whole negotiation process of the Nagoya - Kuala Lumpur Supplementary Protocol on Liability and Redress. I am a regional advisor for the BCH-CPB training projects and as such I have organized and delivered workshops in most Latin American countries. I have been part of the AHTEG on Synthetic Biology of the Convention on Biological Diversity (CBD) and am currently a member of the AHTEG on Risk Assessment of the CPB. I have been and am an advisor to my country on biosafety and access to genetic resources, mainly to the Ministries of Environment and Agriculture.

**ANNEX IX. REVIEW TORS (WITHOUT ANNEXES)**

**TERMS OF REFERENCE**

**Terminal Review of the UNEP/GEF project  
'Consolidation of National Capacities for the Full implementation of the Cartagena Protocol on  
Biosafety in Panama (GEF ID Number – 3631)'**

**Section 1: PROJECT BACKGROUND AND OVERVIEW**

**Project General Information**

**Table 1. Project summary - Consolidation of National Capacities for the Full implementation of the Cartagena Protocol on Biosafety in Panama (GEF ID Number – 3631)**

|                                    |   |                                     |   |
|------------------------------------|---|-------------------------------------|---|
| <b>UNEP Sub-programme:</b>         | Ecosystem Management  | <b>UNEP Division/Branch:</b>        | UN Environment Programme<br>Ecosystems Division<br>GEF Biodiversity and Land Degradation Unit<br>Biodiversity and Land Branch                   |
| <b>Expected Accomplishment(s):</b> | To achieve an effective application of the Cartagena Protocol on Biosafety by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle Living Genetically Modified Organisms (LMO) to safeguard biodiversity.  | <b>Programme of Work Output(s):</b> | Programme of Work for the Biennium 2020–2021<br>Subprogramme 3 – Healthy and productive ecosystems<br>Subprogramme 4 – Environmental governance |
| <b>SDG(s) and indicator(s)</b>     | <p>Panama UNSDCF 2021-2025<br/>Cooperation Framework Result 3: By 2025, Panama is resilient and has implemented environmental policies on adaptation and mitigation to climate change, land degradation neutrality, protection of biodiversity, integrated environmental management and disaster risk reduction, and health crises, with a focus on human, gender, intercultural, lifelong and territorial rights.<br/>Output 3.1: National and local institutions have put in motion policies, strategies or integrated plans and coordination mechanisms in favor of climate action, environmental health, the generation of enterprises, jobs and/or green and resilient inputs, and reduction of disaster risks and health crises</p> <p>SDG 2 – Zero Hunger<br/>Target 2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national,</p> |                                     |   |



|  |  |   |   |
|--|--|---|---|
|  | regional and international levels, and promote access to and fair and equitable sharing of benefits arising<br>Indicator 2.5.1 Number of plant and animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities<br>Indicator 2.5.2 Proportion of local breeds classified as being at risk, not at risk or at unknown level of risk of extinction |   |   |
| <b>GEF Core Indicator Targets (identify these for projects approved prior to GEF-7<sup>23</sup>)</b> | Subprogramme 3: EA(a), Indicator (iii)<br>Subprogramme 4: EA(b), Indicator (i)   |   |   |
| <b>Dates of previous project phases:</b>   | Extensions;<br>Oct 2016 – Dec 2019 (38 months)<br>Dec 2019 – Dec 2020 (12 months)<br>Dec 2020 – Sep 2021 (9 months)  | <b>Status of future project phases:</b> | - |

**FROM THE PROJECT'S PIR REPORT (use latest version) :**

|                       |   |
|-----------------------|---|
| <b>Project Title:</b> | Consolidation of national capacities for the full implementation of the Cartagena Protocol on Biosafety in Panama |
|-----------------------|---|

|                          |  |
|--------------------------|--|
| <b>Executing Agency:</b> | Ministry of Environment (MIAMBIENTE) Directorate of Protected Areas and Biodiversity |
|--------------------------|--|

|                          |   |
|--------------------------|---|
| <b>Project partners:</b> | Aquatic Resources Authority of Panama (ARAP), Food Safety Authority of Panama (AUPSA), Institute of Scientific Research and High Technology Services (INDICASAT), Ministry of Agriculture (MIDA), Ministry of Health (MINS), National Secretariat of Science and Technology (SENACYT) |
|--------------------------|---|

|                            |                             |
|----------------------------|-----------------------------|
| <b>Geographical Scope:</b> | Latin America and Caribbean |
|----------------------------|-----------------------------|

|                                 |        |
|---------------------------------|--------|
| <b>Participating Countries:</b> | Panama |
|---------------------------------|--------|

|  |                   |  |  |
|--|-------------------|--|--|
| <b>GEF project ID:</b>                   | 3631              | <b>IMIS number*<sup>24</sup>:</b>          | GFL-5060-2716-4C45-SB-000687.41  |
| <b>Focal Area(s):</b>                    | Biodiversity      | <b>GEF OP #:</b>                           | BD 1 Improve Sustainability of Programme of Work for the Biennium 2020–2021<br>Subprogramme 3 – Healthy and productive ecosystems<br>Subprogramme 4 – Environmental governance |
| <b>GEF Strategic Priority/Objective:</b> | BD 1              | <b>GEF approval date*:</b>                 | 11 August 2011   |
| <b>UNEP approval date:</b>               |                   | <b>Date of first disbursement*:</b>        | 12 August 2014   |
| <b>Actual start date<sup>25</sup>:</b>   | 28 October 2013   | <b>Planned duration:</b>                   | 36 months  |
| <b>Intended completion date*:</b>        | 31 March 2022     | <b>Actual or Expected completion date:</b> | September 2021   |
| <b>Project Type:</b>                     | Full Size Project | <b>GEF Allocation*:</b>                    | USD 954,927  |
| <b>PPG GEF cost*:</b>                    |                   | <b>PPG co-financing*:</b>                  |  |

<sup>23</sup> This does not apply to Enabling Activities

<sup>24</sup> Fields with an \* sign (in yellow) should be filled by the Fund Management Officer

<sup>25</sup> Only if different from first disbursement date, e.g., in cases where a long time elapsed between first disbursement and recruitment of project manager.

|  |                |   |                              |
|--|----------------|---|------------------------------|
| <b>Expected MSP/FSP Co-financing*:</b>                     | USD 1,000,000  | <b>Total Cost*:</b>   | USD 1,954,927                |
| <b>Mid-term Review/eval. (planned date):</b>               | April 2020     | <b>Terminal Evaluation (planned date):</b>                          | 1 <sup>st</sup> quarter 2022 |
| <b>Mid-term Review/eval. (actual date):</b>                | April 2020     | <b>No. of revisions*:</b>   |                              |
| <b>Date of last Steering Committee meeting:</b>            |                | <b>Date of last Revision*:</b>                                      |                              |
| <b>Disbursement as of 30 June 2021:</b>                    | USD 837,813.84 | <b>Date of planned financial closure*:</b>                          | 31 March 2022                |
| <b>Date of planned completion<sup>26*</sup>:</b>           | 31 March 2022  | <b>Actual expenditures reported as of 30 June 2021:</b>             | USD 853,546.70               |
| <b>Total co-financing realized as of 31 December 2021:</b> |                | <b>Actual expenditures entered in IMIS as of 31 December 2021*:</b> |                              |
| <b>Leveraged financing:<sup>27</sup></b>                   |                |   |                              |

## Project Rationale<sup>28</sup>

The Project aimed to achieve the effective application of the CPB by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle Living Genetically Modified Organisms (LMO) for the safeguard of biodiversity. It specifically supported key priorities for reducing adverse effects to biodiversity, human health and negative socioeconomic impacts and fosters sustainable environmental development. Likewise, it contributed to the efforts of the Government of Panama to achieve one of the Millennium Development Goals: ensure environmental sustainability through the integration of sustainable development into country policies and programmes, reverse the loss of natural resources, specifically global importance biodiversity. Additionally, the Project offered support for biodiversity conservation, avoiding the inadequate use of LMO, as well as offering alternatives that generate environmental benefits at the local, national, and global levels, and changes in soil use practices that reduce threats and overexploitation of critical ecosystems, including buffer zones and ecological corridors of global importance. The Project aimed to reduce risks to biodiversity posed by LMOs and considerably increase global benefits by allowing Panama to fully exert its rights and obligations under the CPB.

## Project Results Framework

**Project objective:** to achieve an effective application of the Cartagena Protocol on Biosafety by implementing Panama's national biosafety regulatory framework and developing national capacities to properly handle Living Genetically Modified Organisms (LMO) to safeguard biodiversity.

### Components:

#### 1. Implementation of legal and institutional frameworks to ensure compliance with the provisions of the Cartagena Protocol on Biosafety and the Convention on Biological Diversity

The first component focuses on filling the gaps in the institutional and legal frameworks and includes the necessary coordination and integration of biosafety in support of decision-making processes and application of law.

#### 2. Strengthening of capacities for risk analysis and management for GMO

The second component covers the need to increase the capacity for risk analysis and management, as pre-approval and post release issues, with emphasis on informing decision-making processes.

#### 3. Creation of an integrated monitoring, inspection and response system

The third component is focused on management of monitoring and inspections of areas related to post release or post approval; includes customs monitoring and emergency response, and novel areas in the biosafety framework.

#### 4. Generation of national biosafety information

The fourth component aims to generate an updated biosafety information system on a national level, focused on transparency and accountability, that reflects the status of national biosafety.

<sup>26</sup> If there was a "Completion Revision" please use the date of the revision.

<sup>27</sup> See above note on co-financing

<sup>28</sup> Grey =Info to be added

## 5. Promotion of awareness, education and public participation in matters related to biosafety

The fifth component is focused on stimulating public participation through creation of public awareness and informative communication.

### Executing Arrangements

National Executing Agency – The National Environmental Authority, ANAM, acting as the “National Executing Agency” (NEA) was the entity legally responsible for the executing the Project. ANAM was designated as the NEA by the central Government after consultation with the GEF and CPB Focal Points. Its role and responsibilities centred on the effective coordination of project activities, on keeping the project on track towards achieving its objectives and expected results, on maintaining high fiduciary standards and reporting to UNEP, and on ensuring that the project does not counterpoise or contravene Government actions in biosafety or in other related matters, in any way.

The NEA was supported in its role by the SENACYT, offering technical cooperation and advisory services in biotechnology R+D and biosafety matters. ANAM, through its Direction of Protected Areas and Wildlife (DAPVS), set up a Biosafety Unit supported technically and administratively by UNARGEN and with qualified human resources responsible for guiding project actions, reviewing project products, keeping track of benchmark results and giving long term continuity to the implementation of the CPB. Specific staff from the Biosafety Unit /UNARGEN was appointed as national counterparts for the Project.

The Project’s Coordinating (Steering) Committee was formed directly from the Biosafety Committee, which is presided by the ANAM (as its Secretariat). Representatives from the productive sectors, private sector, NGOs and civil society organizations were invited on a collaborative and consultative basis. This Committee acted as an advisory group that supports the implementation of the Project, will review technical aspects to be considered in the development of the Project and facilitated communication and coordination between entities.

### Project Cost and Financing

#### *Total Budget as indicated in the Final Report (US\$):*

|                             |           |
|-----------------------------|-----------|
| Cost to the GEF Trust Fund: | 954,927   |
| Co-financing total:         | 1,000,000 |
| Total project cost:         | 1,954,927 |

### Implementation Issues

Terminal review should pay particular attention to the conclusions and recommendations of 2020 MTR, some of the conclusions are summarised below:

- The PRODOC is strong in terms of its relevance, the logic of intervention and the need for the proposed results, however it has weaknesses in the design of the logical framework, the establishment of indicators and does not contemplate a monitoring and evaluation system. These weaknesses added to other factors to delay the implementation of the project.
- The project's risks were considered with optimism and this, added to unexpected changes of governments and the unexpected transformation of ANAM into a Ministry, led to strong delays in the start of the project,
- UN's administrative processes for implementation, as well as the continuous changes in management personnel, contributed to the delay in implementation.
- The project's stakeholders recognize the value of the project for their management, but fully agree that it would have been much more successful had it been initiated when it was planned because it would have contributed to addressing concrete events of GMO introduction.
- The delays of the project have led the implementation team to work in an "emergency mode".
- The National Biosafety Commission (NBC) members, are working with staff appointed but committed to other activities in their respective institutions this prevent the possibility of a more active and speed up work with the project.
- In almost all interviews, as well as in the management of the NBC members, it is perceived that their attitude is more reactive than proactive, where process planning requires even more support to create a constant and permanent work culture instead of reacting to the presence of particular events.

- All actors appreciate the progress of the project, but because they do not have dedicated Biosafety staff in their organizations, they have this work as an addition to their functions and therefore find it difficult to respond quickly to the actions promoted by the project.
- Progress in protocol development has not been driven by all BNC member authorities, although MIDA has clearly taken a leadership role followed by several organizations this is reflected in the following two aspects:
- Very professional and holistic work has been and continues to be done in the process of communication and development of public awareness. However, from the data and contracts it has become clear that no mechanism has been established to evaluate the impact of communication campaigns.
- It was evident from the interviews that all the members of the NBC have invested and collaborated with their own resources for the implementation of the project, however the documentary evidence shows that there is still no proper record of the matching funds.
- There is a need to engage with additional organization in Panama with different proposes, for instance Customs (Biosafety and Food Units), Panama Canal Authority, Universities, (University of Panama and University and Technology University of Panama), Laboratories, in particular Gorgas, and the laboratories from MIDA and IDIAP, as well as members of the private productive sectors
- Due to the aggressive impact of COVID 19 in the Central American region that has led to previous prohibitions of meetings, quarantine measures and total or partial closures of airports and entry of foreigners in Panama, it will be impossible to complete the project commitments in the stipulated time. It will be necessary to adapt working methods, review and renegotiate the consulting contracts or SSFA signed to achieve complete and satisfactory completion of the products.

## Section 2. OBJECTIVE AND SCOPE OF THE REVIEW

### Objective of the Review

In line with the UNEP Evaluation Policy<sup>29</sup> and the UNEP Programme Manual<sup>30</sup>, the Terminal Review (TR) is undertaken at operational completion of the project to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability. The Review has two primary purposes: (i) to provide evidence of results to meet accountability requirements, and (ii) to promote operational improvement, learning and knowledge sharing through results and lessons learned among UNEP and Ministry of Environment Directorate of Protected Areas and Biodiversity (MIAMBIENTE) of Panama. Therefore, the Review will identify lessons of operational relevance for future project formulation and implementation, especially for future phases of the project, where applicable.

### Key Review principles

Review findings and judgements will be based on **sound evidence and analysis**, clearly documented in the Review Report. Information will be triangulated (i.e. verified from different sources) as far as possible, and when verification is not possible, the single source will be mentioned (whilst anonymity is still protected). Analysis leading to evaluative judgements should always be clearly spelled out.

**The “Why?” Question.** As this is a Terminal Review and a follow-up project is likely or similar interventions are envisaged for the future, particular attention will be given to learning from the experience. Therefore, the “why?” question should be at the front of the consultant(s)’ minds all through the review exercise and is supported by the use of a theory of change approach. This means that the consultant(s) need to go beyond the assessment of “what” the project performance was and make a serious effort to provide a deeper understanding of “why” the performance was as it was (i.e. what contributed to the achievement of the project’s results). This should provide the basis for the lessons that can be drawn from the project.

**Attribution, Contribution and Credible Association:** In order to *attribute* any outcomes and impacts to a project intervention, one needs to consider the difference between what has happened with, and what would have happened without, the project (i.e. take account of changes over time and between contexts in order to isolate the effects of an intervention). This requires appropriate baseline data and the identification of a relevant counterfactual, both of which are frequently not available for reviews. Establishing the *contribution* made by a project in a complex change process relies heavily on prior intentionality (e.g. approved project design documentation, logical framework) and the articulation of causality (e.g. narrative and/or illustration of the Theory of Change). Robust evidence that a project was delivered as designed and that the expected causal pathways developed supports claims of contribution and this is strengthened where an alternative theory of change can be excluded. A *credible association* between the implementation of a project and observed positive effects can be made where a strong causal narrative, although not explicitly articulated, can be inferred by the chronological sequence of events, active involvement of key actors and engagement in critical processes.

**Communicating Review Results.** A key aim of the Review is to encourage reflection and learning by UNEP staff and key project stakeholders. The consultant should consider how reflection and learning can be promoted, both through the review process and in the communication of review findings and key lessons. Clear and concise writing is required on all review deliverables. Draft and final versions of the main Review Report will be shared with key stakeholders by the Task Manager. There may, however, be several intended audiences, each with different interests and needs regarding the report. The consultant will plan with the Task Manager which audiences to target and the easiest and clearest way to communicate the key review findings and lessons to them. This may include some, or all, of the following: a webinar, conference calls with relevant stakeholders, the preparation of a review brief or interactive presentation.

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<sup>29</sup> <https://www.unenvironment.org/about-un-environment/evaluation-office/policies-and-strategies>

<sup>30</sup> <https://wecollaborate.unep.org>

## Key Strategic Questions

In addition to the review criteria outlined in Section 10 below, the Review will address the **strategic questions**<sup>31</sup> listed below. These are questions of interest to UNEP and to which the project is believed to be able to make a substantive contribution. Also included are five questions that are required when reporting in the GEF Portal and these must be addressed in the TR:

Q1: To what extent has the project achieved an effective application of the Cartagena Protocol on Biosafety, implemented the national biosafety regulatory framework and developed national capacities to properly handle LMO to safeguard biodiversity?

Q2: What impact has been achieved by actors engaged in the project moving on and deploying their knowledge in novel areas? How were the lessons learned used in applying agile and adaptive management of the project?

Q3: What changes were made to adapt to the effects of COVID-19 and how might any changes affect the project's performance?

Q4: How effectively has the project addressed MTR recommendations?

Address the questions required for the GEF Portal in the appropriate parts of the report and provide a **summary of the findings in the Conclusions section of the report**:

- a) Under Monitoring and Reporting/Monitoring of Project Implementation:  
What was the performance at the project's-completion against Core Indicator Targets? *(For projects approved prior to GEF-7, these indicators will be identified retrospectively and comments on performance provided<sup>32</sup>).*
- b) Under Factors Affecting Performance/Stakeholder Participation and Cooperation:  
What were the progress, challenges and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR? *(This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval)*
- c) Under Factors Affecting Performance/Responsiveness to Human Rights and Gender Equality:  
What were the completed gender-responsive measures and, if applicable, actual gender result areas? *(This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent)*
- d) Under Factors Affecting Performance/Environmental and Social Safeguards:  
What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latest PIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. *(Any supporting documents gathered by the Consultant during this Review should be shared with the Task Manager for uploading in the GEF Portal)*
- e) Under Factors Affecting Performance/Communication and Public Awareness:  
What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions? *(This should be based on the documentation approved at CEO Endorsement/Approval)*

## Review Criteria

All review criteria will be rated on a six-point scale. Sections A-I below, outline the scope of the review criteria. The set of review criteria are grouped in nine categories: (A) Strategic Relevance; (B) Quality of Project Design; (C) Nature of External Context; (D) Effectiveness, which comprises assessments of the availability of outputs, achievement of outcomes and likelihood of impact; (E) Financial Management; (F) Efficiency; (G) Monitoring and Reporting; (H) Sustainability; and (I) Factors Affecting Project Performance.

Annex 1 of these Terms of Reference provides a table with a list of various tools, templates and guidelines that can help Review Consultant(s) to follow a thorough review process that meets all of UNEP's needs.

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<sup>31</sup> The strategic questions should not duplicate questions that will be addressed under the standard review criteria described in section 10.

<sup>32</sup> This does not apply to Enabling Activities

## **A. Strategic Relevance**

The Review will assess the extent to which the activity is suited to the priorities and policies of the donors, implementing regions/countries and the target beneficiaries. The Review will include an assessment of the project's relevance in relation to UNEP's mandate and its alignment with UNEP's policies and strategies at the time of project approval. Under strategic relevance an assessment of the complementarity of the project with other interventions addressing the needs of the same target groups will be made. This criterion comprises four elements:

### **i. Alignment to the UNEP's Medium-Term Strategy<sup>33</sup> (MTS), Programme of Work (POW) and Strategic Priorities**

The Review should assess the project's alignment with the MTS and POW under which the project was approved and include, in its narrative, reflections on the scale and scope of any contributions made to the planned results reflected in the relevant MTS and POW. UNEP strategic priorities include the Bali Strategic Plan for Technology Support and Capacity Building<sup>34</sup> (BSP) and South-South Cooperation (S-SC). The BSP relates to the capacity of governments to: comply with international agreements and obligations at the national level; promote, facilitate and finance environmentally sound technologies and to strengthen frameworks for developing coherent international environmental policies. S-SC is regarded as the exchange of resources, technology and knowledge between developing countries.

### **ii. Alignment to Donor/GEF/Partner Strategic Priorities**

Donor strategic priorities will vary across interventions. The Review will assess the extent to which the project is suited to, or responding to, donor priorities. In some cases, alignment with donor priorities may be a fundamental part of project design and grant approval processes while in others, for example, instances of 'softly-earmarked' funding, such alignment may be more of an assumption that should be assessed.

### **iii. Relevance to Global, Regional, Sub-regional and National Environmental Priorities**

The Review will assess the alignment of the project with global priorities such as the SDGs and Agenda 2030. The extent to which the intervention is suited, or responding to, the stated environmental concerns and needs of the countries, sub-regions or regions where it is being implemented will also be considered. Examples may include: UN Development Assistance Frameworks (UNDAF) or, national or sub-national development plans, poverty reduction strategies or Nationally Appropriate Mitigation Action (NAMA) plans or regional agreements etc. Within this section consideration will be given to whether the needs of all beneficiary groups are being met and reflects the current policy priority to leave no-one behind.

### **iv. Complementarity with Relevant Existing Interventions/Coherence<sup>35</sup>**

An assessment will be made of how well the project, either at design stage or during the project inception or mobilization<sup>36</sup>, took account of ongoing and planned initiatives (under the same sub-programme, other UNEP sub-programmes, or being implemented by other agencies within the same country, sector or institution) that address similar needs of the same target groups. The Review will consider if the project team, in collaboration with Regional Offices and Sub-Programme Coordinators, made efforts to ensure their own intervention was complementary to other interventions, optimized any synergies and avoided duplication of effort. Examples may include work within UNDAFs or One UN programming. Linkages with other interventions should be described and instances where UNEP's comparative advantage has been particularly well applied should be highlighted.

*Factors affecting this criterion may include:*

- Stakeholders' participation and cooperation.
- Responsiveness to human rights and gender equity.
- Country ownership and driven-ness.

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<sup>33</sup> UNEP's Medium Term Strategy (MTS) is a document that guides UNEP's programme planning over a four-year period. It identifies UNEP's thematic priorities, known as Sub-programmes (SP), and sets out the desired outcomes, known as Expected Accomplishments (EAs), of the Sub-programmes. <https://www.unenvironment.org/about-un-environment/evaluation-office/our-evaluation-approach/un-environment-documents>

<sup>34</sup> <http://www.unep.fr/ozonaction/about/bsp.htm>

<sup>35</sup> This sub-category is consistent with the new criterion of 'Coherence' introduced by the OECD-DAC in 2019.

<sup>36</sup> A project's inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

## **B. Quality of Project Design**

The quality of project design is assessed using an agreed template during the review inception phase. Ratings are attributed to identified criteria and an overall Project Design Quality rating is established. The complete Project Design Quality template should be annexed in the Review Inception Report. Later, the overall Project Design Quality rating<sup>37</sup> should be entered in the final review ratings table (as item B) in the Main Review Report and a summary of the project's strengths and weaknesses at design stage should be included within the body of the Main Review Report.

*Factors affecting this criterion may include (at the design stage):*

- Stakeholders participation and cooperation.
- Responsiveness to human rights and gender equity.

## **C. Nature of External Context**

At review inception stage a rating is established for the project's external operating context (considering the prevalence of conflict, natural disasters and political upheaval<sup>38</sup>). This rating is entered in the final review ratings table as item C. Where a project has been rated as facing either an *Unfavourable* or *Highly Unfavourable* external operating context, and/or a negative external event has occurred during project implementation, the ratings for Effectiveness, Efficiency and/or Sustainability may be increased at the discretion of the Review Consultant and Task Manager together. A justification for such an increase must be given.

## **D. Effectiveness**

### **i. Availability of Outputs<sup>39</sup>**

The Review will assess the project's success in producing the programmed outputs and making them available to the intended beneficiaries as well as its success in achieving milestones as per the project design document (ProDoc). Any formal modifications/revisions made during project implementation will be considered part of the project design. Where the project outputs are inappropriately or inaccurately stated in the ProDoc, reformulations may be necessary in the reconstruction of the Theory of Change (TOC). In such cases a table should be provided showing the original and the reformulation of the outputs for transparency. The availability of outputs will be assessed in terms of both quantity and quality, and the assessment will consider their ownership by, and usefulness to, intended beneficiaries and the timeliness of their provision. It is noted that emphasis is placed on the performance of those outputs that are most important to achieve outcomes. The Review will briefly explain the reasons behind the success or shortcomings of the project in delivering its programmed outputs available and meeting expected quality standards.

*Factors affecting this criterion may include:*

- Preparation and readiness.
- Quality of project management and supervision.<sup>40</sup>

### **ii. Achievement of Project Outcomes<sup>41</sup>**

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<sup>37</sup> In some instances, based on data collected during the review process, the assessment of the project's design quality may change from Inception Report to Main Review Report.

<sup>38</sup> Note that 'political upheaval' does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project's design and addressed through adaptive management of the project team. From March 2020 this should include the effects of COVID-19.

<sup>39</sup> Outputs are the availability (for intended beneficiaries/users) of new products and services and/or gains in knowledge, abilities and awareness of individuals or within institutions (UNEP, 2019).

<sup>40</sup> For GEF funded projects 'project management and supervision' will refer to the project management performance of the Executing Agency and the technical backstopping provided by UNEP, as Implementing Agency.

<sup>41</sup> Outcomes are the use (i.e. uptake, adoption, application) of an output by intended beneficiaries, observed as changes in institutions or behavior, attitude or condition (UNEP, 2019)



The achievement of project outcomes is assessed as performance against the outcomes as defined in the reconstructed<sup>42</sup> Theory of Change. These are outcomes that are intended to be achieved by the end of the project timeframe and within the project's resource envelope. Emphasis is placed on the achievement of project outcomes that are most important for attaining intermediate states. As with outputs, a table can be used to show where substantive amendments to the formulation of project outcomes is necessary to allow for an assessment of performance. The Review should report evidence of attribution between UNEP's intervention and the project outcomes. In cases of normative work or where several actors are collaborating to achieve common outcomes, evidence of the nature and magnitude of UNEP's 'substantive contribution' should be included and/or 'credible association' established between project efforts and the project outcomes realised.

*Factors affecting this criterion may include:*

- Quality of project management and supervision.
- Stakeholders' participation and cooperation.
- Responsiveness to human rights and gender equity.
- Communication and public awareness.

### **iii. Likelihood of Impact**

Based on the articulation of long-lasting effects in the reconstructed TOC (*i.e. from project outcomes, via intermediate states, to impact*), the Review will assess the likelihood of the intended, positive impacts becoming a reality. Project objectives or goals should be incorporated in the TOC, possibly as intermediate states or long-lasting impacts. The Evaluation Office's approach to the use of TOC in project reviews is outlined in a guidance note and is supported by an excel-based flow chart, 'Likelihood of Impact Assessment Decision Tree'. Essentially the approach follows a 'likelihood tree' from project outcomes to impacts, taking account of whether the assumptions and drivers identified in the reconstructed TOC held. Any unintended positive effects should also be identified and their causal linkages to the intended impact described.

The Review will also consider the likelihood that the intervention may lead, or contribute to, unintended negative effects (e.g. will vulnerable groups such as those living with disabilities and/or women and children, be disproportionately affected by the project?). Some of these potential negative effects may have been identified in the project design as risks or as part of the analysis of Environmental and Social Safeguards.

The Review will consider the extent to which the project has played a catalytic role<sup>43</sup> or has promoted scaling up and/or replication as part of its Theory of Change (either explicitly as in a project with a demonstration component or implicitly as expressed in the drivers required to move to outcome levels) and as factors that are likely to contribute to greater or long lasting impact.

Ultimately UNEP and all its partners aim to bring about benefits to the environment and human well-being. Few projects are likely to have impact statements that reflect such long-lasting or broad-based changes. However, the Review will assess the likelihood of the project to make a substantive contribution to the long-lasting changes represented by the Sustainable Development Goals, and/or the intermediate-level results reflected in UNEP's Expected Accomplishments and the strategic priorities of funding partner(s).

*Factors affecting this criterion may include:*

- Quality of Project Management and Supervision (including adaptive management).
- Stakeholders participation and cooperation.

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<sup>42</sup> UNEP staff are currently required to submit a Theory of Change with all submitted project designs. The level of 'reconstruction' needed during a review will depend on the quality of this initial TOC, the time that has lapsed between project design and implementation (which may be related to securing and disbursing funds) and the level of any changes made to the project design. In the case of projects pre-dating 2013 the intervention logic is often represented in a logical framework and a TOC will need to be constructed in the inception stage of the review.

<sup>43</sup> The terms *catalytic effect, scaling up and replication* are inter-related and generally refer to extending the coverage or magnitude of the effects of a project. *Catalytic effect* is associated with triggering additional actions that are not directly funded by the project – these effects can be both concrete or less tangible, can be intentionally caused by the project or implied in the design and reflected in the TOC drivers, or can be unintentional and can rely on funding from another source or have no financial requirements. *Scaling up and Replication* require more intentionality for projects, or individual components and approaches, to be reproduced in other similar contexts. *Scaling up* suggests a substantive increase in the number of new beneficiaries reached/involved and may require adapted delivery mechanisms while *Replication* suggests the repetition of an approach or component at a similar scale but among different beneficiaries. Even with highly technical work, where scaling up or replication involves working with a new community, some consideration of the new context should take place and adjustments made as necessary.

- Responsiveness to human rights and gender equity.
- Country ownership and driven-ness.
- Communication and public awareness.

### **E. Financial Management**

Financial management will be assessed under three themes: *adherence* to UNEP's financial policies and procedures, *completeness* of financial information and *communication* between financial and project management staff. The Review will establish the actual spend across the life of the project of funds secured from all donors. This expenditure will be reported, where possible, at output/component level and will be compared with the approved budget. The Review will verify the application of proper financial management standards and adherence to UNEP's financial management policies. Any financial management issues that have affected the timely delivery of the project or the quality of its performance will be highlighted. The Review will record where standard financial documentation is missing, inaccurate, incomplete or unavailable in a timely manner. The Review will assess the level of communication between the Project Manager and the Fund Management Officer as it relates to the effective delivery of the planned project and the needs of a responsive, adaptive management approach.

*Factors affecting this criterion may include:*

- Preparation and readiness.
- Quality of project management and supervision.

### **F. Efficiency**

Under the efficiency criterion the Review will assess the extent to which the project delivered maximum results from the given resources. This will include an assessment of the cost-effectiveness and timeliness of project execution.

Focusing on the translation of inputs into outputs, *cost-effectiveness* is the extent to which an intervention has achieved, or is expected to achieve, its results at the lowest possible cost. *Timeliness* refers to whether planned activities were delivered according to expected timeframes as well as whether events were sequenced efficiently. The Review will also assess to what extent any project extension could have been avoided through stronger project management and identify any negative impacts caused by project delays or extensions. The Review will describe any cost or time-saving measures put in place to maximise results within the secured budget and agreed project timeframe and consider whether the project was implemented in the most efficient way compared to alternative interventions or approaches.

The Review will give special attention to efforts made by the project teams during project implementation to make use of/build upon pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities<sup>44</sup> with other initiatives, programmes and projects etc. to increase project efficiency. The factors underpinning the need for any project extensions will also be explored and discussed. Consultants should note that as management or project support costs cannot be increased in cases of 'no cost extensions', such extensions represent an increase in unstated costs to UNEP and Executing Agencies.

*Factors affecting this criterion may include:*

- Preparation and readiness (e.g. timeliness).
- Quality of project management and supervision.
- Stakeholders participation and cooperation.

### **G. Monitoring and Reporting**

The Review will assess monitoring and reporting across three sub-categories: monitoring design and budgeting, monitoring implementation and project reporting.

#### **i. Monitoring Design and Budgeting**

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<sup>44</sup> Complementarity with other interventions during project design, inception or mobilization is considered under Strategic Relevance above.

Each project should be supported by a sound monitoring plan that is designed to track progress against SMART<sup>45</sup> results towards the achievement of the project's outputs and outcomes, including at a level disaggregated by gender, marginalisation or vulnerability, including those living with disabilities. In particular, the Review will assess the relevance and appropriateness of the project indicators as well as the methods used for tracking progress against them as part of conscious results-based management. The Review will assess the quality of the design of the monitoring plan as well as the funds allocated for its implementation. The adequacy of resources for Mid-Term and Terminal Evaluation/Review should be discussed, where applicable.

#### **ii. Monitoring of Project Implementation**

The Review will assess whether the monitoring system was operational and facilitated the timely tracking of results and progress towards project objectives throughout the project implementation period. This assessment will include consideration of whether the project gathered relevant and good quality baseline data that is accurately and appropriately documented. This should include monitoring the representation and participation of disaggregated groups, including gendered, marginalised or vulnerable groups, such as those living with disabilities, in project activities. It will also consider the quality of the information generated by the monitoring system during project implementation and how it was used to adapt and improve project execution, achievement of outcomes and ensure sustainability. The Review should confirm that funds allocated for monitoring were used to support this activity. The performance at project completion against Core Indicator Targets should be reviewed. For projects approved prior to GEF-7, these indicators will be identified retrospectively and comments on performance provided.

#### **iii. Project Reporting**

UNEP has a centralised project information management system (Anubis) in which project managers upload six-monthly progress reports against agreed project milestones. This information will be provided to the Review Consultant(s) by the Task Manager. Some projects have additional requirements to report regularly to funding partners, which will be supplied by the project team (e.g. the Project Implementation Reviews and Tracking Tool for GEF-funded projects). The Review will assess the extent to which both UNEP and GEF reporting commitments have been fulfilled. Consideration will be given as to whether reporting has been carried out with respect to the effects of the initiative on disaggregated groups.

*Factors affecting this criterion may include:*

- Quality of project management and supervision.
- Responsiveness to human rights and gender equity (e.g. disaggregated indicators and data).

### **H. Sustainability**

Sustainability<sup>46</sup> is understood as the probability of the benefits derived from the achievement of project outcomes being maintained and developed after the close of the intervention. The Review will identify and assess the key conditions or factors that are likely to undermine or contribute to the endurance of achieved project outcomes (i.e. 'assumptions' and 'drivers'). Some factors of sustainability may be embedded in the project design and implementation approaches while others may be contextual circumstances or conditions that evolve over the life of the intervention. Where applicable an assessment of bio-physical factors that may affect the sustainability of direct outcomes may also be included.

#### **i. Socio-political Sustainability**

The Review will assess the extent to which social or political factors support the continuation and further development of the benefits derived from project outcomes. It will consider the level of ownership, interest and commitment among government and other stakeholders to take the project achievements forwards. In particular the Review will consider whether individual capacity development efforts are likely to be sustained.

#### **ii. Financial Sustainability**

Some project outcomes, once achieved, do not require further financial inputs, e.g. the adoption of a revised policy. However, in order to derive a benefit from this outcome further management action may still be needed e.g. to

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<sup>45</sup> SMART refers to results that are specific, measurable, achievable, relevant and time-oriented. Indicators help to make results measurable.

<sup>46</sup> As used here, 'sustainability' means the long-term maintenance of outcomes and consequent impacts, whether environmental or not. This is distinct from the concept of sustainability in the terms 'environmental sustainability' or 'sustainable development', which imply 'not living beyond our means' or 'not diminishing global environmental benefits' (GEF STAP Paper, 2019, Achieving More Enduring Outcomes from GEF Investment)

undertake actions to enforce the policy. Other project outcomes may be dependent on a continuous flow of action that needs to be resourced for them to be maintained, e.g. continuation of a new natural resource management approach. The Review will assess the extent to which project outcomes are dependent on future funding for the benefits they bring to be sustained. Secured future funding is only relevant to financial sustainability where the project outcomes have been extended into a future project phase. Even where future funding has been secured, the question still remains as to whether the project outcomes are financially sustainable.

### **iii. Institutional Sustainability**

The Review will assess the extent to which the sustainability of project outcomes (especially those relating to policies and laws) is dependent on issues relating to institutional frameworks and governance. It will consider whether institutional achievements such as governance structures and processes, policies, sub-regional agreements, legal and accountability frameworks etc. are robust enough to continue delivering the benefits associated with the project outcomes after project closure. In particular, the Review will consider whether institutional capacity development efforts are likely to be sustained.

*Factors affecting this criterion may include:*

- Stakeholders participation and cooperation.
- Responsiveness to human rights and gender equity (e.g. where interventions are not inclusive, their sustainability may be undermined).
- Communication and public awareness.
- Country ownership and driven-ness.

## **I. Factors Affecting Project Performance and Cross-Cutting Issues**

*(These factors are rated in the ratings table but are discussed within the Main Review Report as cross-cutting themes as appropriate under the other review criteria, above. If these issues have not been addressed under the Review Criteria above, then independent summaries of their status within the reviewed project should be given in this section)*

### **i. Preparation and Readiness**

This criterion focuses on the inception or mobilisation stage of the project (i.e. the time between project approval and first disbursement). The Review will assess whether appropriate measures were taken to either address weaknesses in the project design or respond to changes that took place between project approval, the securing of funds and project mobilisation. In particular the Review will consider the nature and quality of engagement with stakeholder groups by the project team, the confirmation of partner capacity and development of partnership agreements as well as initial staffing and financing arrangements. *(Project preparation is included in the template for the assessment of Project Design Quality).*

### **ii. Quality of Project Management and Supervision**

For GEF funded projects 'project management and supervision' may refer to the project management performance of the Executing Agency and the technical backstopping and supervision provided by UNEP as Implementing Agency. The performance of parties playing different roles should be discussed and a rating provided for both types of supervision (UNEP/Implementing Agency; Partner/Executing Agency) and the overall rating for this sub-category established as a simple average of the two.

The Review will assess the effectiveness of project management with regard to: providing leadership towards achieving the planned outcomes; managing team structures; maintaining productive partner relationships (including Steering Groups etc.); maintaining project relevance within changing external and strategic contexts; communication and collaboration with UNEP colleagues; risk management; use of problem-solving; project adaptation and overall project execution. Evidence of adaptive management should be highlighted.

### **iii. Stakeholder Participation and Cooperation**

Here the term 'stakeholder' should be considered in a broad sense, encompassing all project partners, duty bearers with a role in delivering project outputs, target users of project outputs and any other collaborating agents external to UNEP and the executing partner(s). The assessment will consider the quality and effectiveness of all forms of communication and consultation with stakeholders throughout the project life and the support given to maximise collaboration and coherence between various stakeholders, including sharing plans, pooling resources and exchanging learning and expertise. The inclusion and participation of all differentiated groups, including gender groups should be considered.

The progress, challenges and outcomes regarding engagement of stakeholders in the project/program occurring since the MTR should be reviewed. This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval.

#### **iv. Responsiveness to Human Rights and Gender Equality**

The Review will ascertain to what extent the project has applied the UN Common Understanding on the human rights-based approach (HRBA) and the UN Declaration on the Rights of Indigenous People. Within this human rights context the Review will assess to what extent the intervention adheres to UNEP's Policy and Strategy for Gender Equality and the Environment<sup>47</sup>.

The report should present the extent to which the intervention, following an adequate gender analysis at design stage, has implemented the identified actions and/or applied adaptive management to ensure that Gender Equality and Human Rights are adequately taken into account. In particular the Review will consider to what extent project, implementation and monitoring have taken into consideration: (i) possible inequalities (especially those related to gender) in access to, and the control over, natural resources; (ii) specific vulnerabilities of disadvantaged groups (especially women, youth and children and those living with disabilities) to environmental degradation or disasters; and (iii) the role of disadvantaged groups (especially women, youth and children and those living with disabilities) in mitigating or adapting to environmental changes and engaging in environmental protection and rehabilitation.

The completed gender-responsive measures and, if applicable, actual gender result areas should be reviewed. This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent.

#### **v. Environmental and Social Safeguards**

UNEP projects address environmental and social safeguards primarily through the process of environmental and social screening at the project approval stage, risk assessment and management (avoidance, minimization, mitigation or, in exceptional cases, offsetting) of potential environmental and social risks and impacts associated with project and programme activities. The Review will confirm whether UNEP requirements<sup>48</sup> were met to: *review* risk ratings on a regular basis; *monitor* project implementation for possible safeguard issues; *respond* (where relevant) to safeguard issues through risk avoidance, minimization, mitigation or offsetting and *report* on the implementation of safeguard management measures taken. UNEP requirements for proposed projects to be screened for any safeguarding issues; for sound environmental and social risk assessments to be conducted and initial risk ratings to be assigned are reviewed above under Quality of Project Design). The Review will also consider the extent to which the management of the project minimised UNEP's environmental footprint. Implementation of the management measures against the Safeguards Plan submitted at CEO Approval should be reviewed, the risk classifications verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. Any supporting documents gathered by the Consultant should be shared with the Task Manager.

#### **vi. Country Ownership and Driven-ness**

The Review will assess the quality and degree of engagement of government / public sector agencies in the project. While there is some overlap between Country Ownership and Institutional Sustainability, this criterion focuses primarily on the forward momentum of the intended projects results, i.e. either: a) moving forwards from outputs to project outcomes or b) moving forward from project outcomes towards intermediate states. The Review will consider the involvement not only of those directly involved in project execution and those participating in technical or leadership groups, but also those official representatives whose cooperation is needed for change to be embedded in their respective institutions and offices (e.g. representatives from multiple sectors or relevant ministries beyond Ministry of Environment). This factor is concerned with the level of ownership generated by the project over outputs and outcomes and that is necessary for long term impact to be realised. Ownership should extend to all gender and marginalised groups.

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<sup>47</sup>The Evaluation Office notes that Gender Equality was first introduced in the UNEP Project Review Committee Checklist in 2010 and, therefore, provides a criterion rating on gender for projects approved from 2010 onwards. Equally, it is noted that policy documents, operational guidelines and other capacity building efforts have only been developed since then and have evolved over time.

[https://wedocs.unep.org/bitstream/handle/20.500.11822/7655/-Gender\\_equality\\_and\\_the\\_environment\\_Policy\\_and\\_strategy-2015Gender\\_equality\\_and\\_the\\_environment\\_policy\\_and\\_strategy.pdf.pdf?sequence=3&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/7655/-Gender_equality_and_the_environment_Policy_and_strategy-2015Gender_equality_and_the_environment_policy_and_strategy.pdf.pdf?sequence=3&isAllowed=y)

Gender\_equality\_and\_the\_environment\_Policy\_and\_strategy-2015Gender\_equality\_and\_the\_environment\_policy\_and\_strategy.pdf.pdf?sequence=3&isAllowed=y

<sup>48</sup> For the review of project concepts and proposals, the Safeguard Risk Identification Form (SRIF) was introduced in 2019 and replaced the Environmental, Social and Economic Review note (ESERN), which had been in place since 2016. In GEF projects safeguards have been considered in project designs since 2011.

#### **vii. Communication and Public Awareness**

The Review will assess the effectiveness of: a) communication of learning and experience sharing between project partners and interested groups arising from the project during its life and b) public awareness activities that were undertaken during the implementation of the project to influence attitudes or shape behaviour among wider communities and civil society at large. The Review should consider whether existing communication channels and networks were used effectively, including meeting the differentiated needs of gendered or marginalised groups, and whether any feedback channels were established. Where knowledge sharing platforms have been established under a project the Review will comment on the sustainability of the communication channel under either socio-political, institutional or financial sustainability, as appropriate

The project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions should be reviewed. This should be based on the documentation approved at CEO Endorsement/Approval.

### **Section 3. REVIEW APPROACH, METHODS AND DELIVERABLES**

The Terminal Review will be an in-depth review using a participatory approach whereby key stakeholders are kept informed and consulted throughout the review process. Both quantitative and qualitative review methods will be used as appropriate to determine project achievements against the expected outputs, outcomes and impacts. It is highly recommended that the consultant(s) maintains close communication with the project team and promotes information exchange throughout the review implementation phase in order to increase their (and other stakeholder) ownership of the review findings. Where applicable, the consultant(s) should provide a geo-referenced map that demarcates the area covered by the project and, where possible, provide geo-reference photographs of key intervention sites (e.g. sites of habitat rehabilitation and protection, pollution treatment infrastructure, etc.)

The findings of the Review will be based on the following:

(a) **A desk review of:**

- Relevant background documentation, inter alia biodiversity and natural resource management strategies, other substantive documents prepared by the projects and others;
- Project design documents (including minutes of the project design review meeting at approval); Annual Work Plans and Budgets or equivalent, revisions to the project (Project Document Supplement), the logical framework and its budget;
- Project reports such as six-monthly progress and financial reports, progress reports from collaborating partners, meeting minutes, relevant correspondence and including the Project Implementation Reviews and Tracking Tool and others;
- Project deliverables (e.g. publications, reports, assessments, surveys);
- Mid-Term Review or Mid-Term Evaluation of the project;
- Evaluations/Reviews of similar projects.

(b) **Interviews** (individual or in group) with:

- UNEP Task Manager (TM);
- Project Manager (PM)
- Project management team;
- UNEP Fund Management Officer (FMO);
- Portfolio Manager and Sub-Programme Coordinator, where appropriate;
- Project partners based on stakeholder analyses;
- Relevant resource persons;
- Representatives from civil society and specialist groups (such as women's, farmers and trade associations etc).

**Surveys**

**Field visits**

**Other data collection tools**, all as appropriate for the terminal review and elaborated in the inception report.

### **Review Deliverables and Review Procedures**

The Review Consultant will prepare:

- **Inception Report:** (see Annex 1 for a list of all templates, tables and guidance notes) containing an assessment of project design quality, a draft reconstructed Theory of Change of the project, project stakeholder analysis, review framework and a tentative review schedule.
- **Preliminary Findings Note:** typically in the form of a PowerPoint presentation, the sharing of preliminary findings is intended to support the participation of the project team, act as a means to ensure all information sources have been accessed and provide an opportunity to verify emerging findings.
- **Draft and Final Review Report:** containing an executive summary that can act as a stand-alone document; detailed analysis of the review findings organised by review criteria and supported with evidence; lessons learned and recommendations and an annotated ratings table.

A **Review Brief** (a 2-page overview of the evaluand and review findings) for wider dissemination through the UNEP website may be required. This will be discussed with the Task Manager no later than during the finalization of the Inception Report.

**Review of the Draft Review Report.** The Review Consultant will submit a draft report to the Task Manager and revise the draft in response to their comments and suggestions. The Task Manager will then forward the revised draft report to other project stakeholders, for their review and comments. Stakeholders may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions as well as providing feedback on the proposed recommendations and lessons. Any comments or responses to draft reports will be sent to the Task Manager for consolidation. The Task Manager will provide all comments to the Review Consultant for consideration in preparing the final report, along with guidance on areas of contradiction or issues requiring an institutional response.

The final version of the Terminal Review report will be assessed for its quality by the UNEP Evaluation Office using a standard template and this assessment will be annexed to the final Terminal Review report.

At the end of the review process, the Task Manager will prepare a **Recommendations Implementation Plan** in the format of a table, to be completed and updated at regular intervals, and circulate the **Lessons Learned**.

## The Review Consultant

The Review Consultant will work under the overall responsibility of the Task Manager in consultation with the Fund Management Officer, the Head of Unit/Branch, the Portfolio Manager and the Sub-programme Coordinators of the relevant UNEP Sub-programmes as appropriate.

The Review Consultant will liaise with the Task Manager on any procedural and methodological matters related to the Review. It is, however, the consultant's individual responsibility (where applicable) to arrange for their visas and immunizations as well as to plan meetings with stakeholders, organize online surveys, obtain documentary evidence and any other logistical matters related to the assignment. The UNEP Task Manager and project team will, where possible, provide logistical support (introductions, meetings etc.) allowing the consultants to conduct the Review as efficiently and independently as possible.

The Review Consultant will be hired for 40 days over the period of 4 months (1 June 2023 to 30 September 2023) and should have the following: a university degree in environmental sciences, international development or other relevant political or social sciences area is required and an advanced degree in the same areas is desirable; a minimum of 7 years of technical / evaluation experience is required, preferably including evaluating large, regional or global programmes and using a Theory of Change approach; and a good/broad understanding of biodiversity and biosafety issues is desired. For this consultancy, fluency in oral and written English and Spanish is a requirement. Working knowledge of the UN system and specifically the work of UNEP is an added advantage. The work will be home-based with possible field visits.

The Review Consultant will be responsible, in close consultation with the Task Manager, for overall quality of the review and timely delivery of its outputs, described above in Section 11 Review Deliverables, above. The Review Consultant will ensure that all review criteria and questions are adequately covered.

## Schedule of the Review

The table below presents the tentative schedule for the Review over 4 months since start of the assignment.

### Table 3. Tentative schedule for the Review

| <b>Milestone</b>  | <b>Tentative Dates</b>      |
|---|-----------------------------|
| Inception Report  | 3 weeks from starting date  |
| Review Mission  | 6 weeks from starting date  |
| E-based data collection through interviews, surveys and other approaches. | 8 weeks from starting date  |
| PowerPoint/presentation on preliminary findings and recommendations       | 8 weeks from starting date  |
| Draft Review Report to Task Manager (and Project Manager)                 | 12 weeks from starting date |
| Draft Review Report shared with wider group of stakeholders               | 13 weeks from starting date |
| Final Review Report   | 16 weeks from starting date |
| Final Review Report shared with all respondents                           | 16 weeks from starting date |

## **Contractual Arrangements**

The Review Consultant(s) will be selected and recruited by the Task Manager under an individual Special Service Agreement (SSA) on a "fees only" basis (see below). By signing the service contract with UNEP/UNON, the consultant certifies that they have not been associated with the design and implementation of the project in any way which may jeopardize their independence and impartiality towards project achievements and project partner performance. In addition, they will not have any future interests (within six months after completion of the contract) with the project's executing or implementing units. All consultants are required to sign the Code of Conduct Agreement Form.

Fees will be paid on an instalment basis, paid on acceptance and approval by the Task Manager of expected key deliverables. The schedule of payment is as follows:

Schedule of Payment:

| <b>Deliverable</b>  | <b>Percentage Payment</b> |
|---|---------------------------|
| Approved Inception Reports ( <i>as per Annex I document #9</i> )          | 30%                       |
| Approved Draft Main Review Reports ( <i>as per Annex I document #10</i> ) | 30%                       |
| Approved Final Main Review Reports  | 40%                       |

Fees only contracts: Where applicable, air tickets will be purchased by UNEP and 75% of the Daily Subsistence Allowance for each authorised travel mission will be paid up front. Local in-country travel will only be reimbursed where agreed in advance with the Task Manager and on the production of acceptable receipts. Terminal expenses and residual DSA entitlements (25%) will be paid after mission completion.

The consultant may be provided with access to UNEP's information management systems (e.g. PIMS, Anubis, SharePoint, etc.) and, if such access is granted, the consultants agree not to disclose information from that system to third parties beyond information required for, and included in, the Review Report.

In case the consultant is not able to provide the deliverables in accordance with these guidelines, and in line with the expected quality standards by UNEP, payment may be withheld at the discretion of the Head of Branch or Portfolio Manager until the consultants have improved the deliverables to meet UNEP's quality standards.

If the consultant fails to submit a satisfactory final product to the Project Manager in a timely manner, i.e. before the end date of their contract, UNEP reserves the right to employ additional human resources to finalize the report, and to reduce the consultant's fees by an amount equal to the additional costs borne by the project team to bring the report up to standard or completion.



## ANNEX X. GEF PORTAL INPUTS *(for GEF funded projects)*

The following table contains text to be uploaded to the GEF Portal. **It will be drawn from the Review Report, either as copied or summarised text.** In each case, references should be provided for the paragraphs and pages of the report from which the responses have been copied or summarised.

**Table 14: GEF portal inputs**

|   |
|---|
| <p><i>Question:</i> What was the performance at the project’s completion against Core Indicator Targets? (For projects approved prior to GEF-7<sup>49</sup>, these indicators will be identified retrospectively and comments on performance provided<sup>50</sup>).</p>  |
| <p><i>Response:</i> <a href="#">(Review report paragraphs 125, 126).</a></p> <p>Since the Project was developed in GEF-5, there were no GEF core indicator targets defined at CEO endorsement. Based on the project reporting (PIR and final report), the reviewer identified the following GEF-7 core indicators in a retrospective manner:</p> <ul style="list-style-type: none"> <li>• Core Indicator 3. Area of land restored.</li> <li>• Core indicator 4. Area of landscapes under improved practices (hectares; excluding protected areas).</li> <li>• Core indicator 5. Area of marine habitat under improved practices to benefit biodiversity (hectares, excluding protected areas).</li> <li>• Core Indicator 11. Number of direct beneficiaries disaggregated by gender as co benefit of GEF investment.</li> </ul> <p>It should be considered that the topic of this project is biosafety related to the proper use and handling of LMOs, which has connotations in the conservation of biodiversity, agricultural production, local producers, land use, socioeconomic and health aspects. Finding GEF-7 core indicators that apply directly to a biosafety project is challenging, but if one considers the aspects outlined above one can identify the implications that the introduction of LMOS may have on the environment, agricultural practices, local economy and health. In this sense the reviewer has chosen indicators that may be related to agriculture and aquaculture issues that have a relationship with the conservation of biodiversity and sustainable use of biological resources.</p> <p>According to the results of the project, it can be said that in general they contributed to the criteria included in the regulations and manuals on LMOs that help to consider the issues covered by the aforementioned indicators. It should be noted that no LMOs have yet been released into terrestrial or aquatic ecosystems in Panama.</p> |
| <p><i>Question:</i> What were the progress, challenges and outcomes regarding engagement of stakeholders in the project/program as evolved from the time of the MTR? <i>(This should be based on the description included in the Stakeholder Engagement Plan or equivalent documentation submitted at CEO Endorsement/Approval)</i></p>   |
| <p><i>Response:</i> <a href="#">(Review report paragraphs 137, 138).</a></p>  |

<sup>49</sup> The GEF is currently operating under the seventh replenishment period of the GEF Trust Fund covering the period July 1, 2018 to June 30, 2022. The GEF Portal Reporting Guide for FY20 Reporting Process indicates that GEF-6 projects that have yet to map existing indicators to GEF-7 Core Indicators need to do so at MTR stage or (if already there) at the time of the TE. (i.e. not GEF projects approved before GEF-6)

<sup>50</sup> This is not applicable for Enabling Activities

The project's design and institutional arrangements explicitly encouraged stakeholder participation and coordination. Efforts were made to build cross- sector linkages and participatory dynamics that are essential to ensuring maximum impact by the project. The engagement of key stakeholders represented by NBC members and intersectoral committee members was high and contributed greatly to the results and impact of the project.

The participation of other stakeholders varied. Some research institutes, such as IDIAP and ICGES, were interested in participating and getting involved in project activities and in biosafety issues. The relationship with the academic sector was weak; some university representatives, mainly from the University of Panama, took part in project activities but did not get involved in the project, even though their participation would have been valuable given the project's topic and how academia can contribute to biosafety issues related to modern biotechnology, such as the analysis of LMOs. Neither was it possible engage stakeholders such as Panama Canal Authority (ACP) and the National Customs Authority (ANA), despite the efforts made. According to the information obtained from the documents analyzed and the interviews, officials of these institutions are not interested in working on biosafety-related issues, nor is it part of their mandate. The role played by these two institutions in the transit of LMOs is important and this is undoubtedly a pending issue that the project did not achieve and that should be worked on in other initiatives related to biosafety.

It is important to emphasize that in this project, the continuous participation of key stakeholders contributed to achieving the project goal: to strengthen the national biosafety framework in Panama and contribute to the country's effective compliance with the CPB.

*Question: What were the completed gender-responsive measures and, if applicable, actual gender result areas? (This should be based on the documentation at CEO Endorsement/Approval, including gender-sensitive indicators contained in the project results framework or gender action plan or equivalent)*

*Response: (Review report paragraphs 139, 140).*

Gender mainstreaming was a weak point of the project. In project design there is hardly any mention of gender aspects or challenges. Something is described in section 3.11 where this text is found: "From the perspective of project operations, equal employment opportunities will be given to men and women. Project activities and training will not discriminate against any particular group or gender, while target groups such as youth or private companies will receive special attention in the development of the communication strategy and awareness raising materials".

The Project lacked a specific aim or strategy to promote positive changes in attitudes, behaviours and power relations between the different stakeholders, disaggregated by gender, age or race. It did not have specific gender expertise, nor social indicators and hardly collected gender disaggregated data. It can therefore be said that there was a lack of formal gender vision and strategy in the project design but that in practice the participation of women in the project committees and activities carried out was high and, in most cases, exceeded the percentage of men. This is reflected in some PIRs. For example, PIR 2021 describes in certain detail the actions carried out to tackle gender mainstreaming. For instance, it is reported: "The project has attempted to monitor gender balance and representation in its institutional strengthening, capacity building and overall project management and knowledge creation efforts"; "The project's communicational campaign for the promotion of awareness, education and public participation in matters related to biosafety has integrated a gender sensitive approach by using inclusive language

for written communications as well as visual and audio materials". This shows the raising of awareness during project implementation to include this topic.

*Question: What was the progress made in the implementation of the management measures against the Safeguards Plan submitted at CEO Approval? The risk classifications reported in the latest PIR report should be verified and the findings of the effectiveness of any measures or lessons learned taken to address identified risks assessed. (Any supporting documents gathered by the Consultant during this review should be shared with the Task Manager for uploading in the GEF Portal)*

*Response: (Review report paragraph 124).*

The project M&E plan was well implemented. There was no specific M&E officer, but monitoring was the responsibility of the Project Coordinators, who were in charge of the oversight, gathering of information and production of reports, in coordination with the EA (MiAmbiente and ROLAC). The reviewer examined the periodic progress reports, project implementation reviews (PIR) and found them informative. The PIRs included informative narratives on project progress and detailed reporting on indicators, risk rating and stakeholder engagement. The PIRs reported well how project monitoring informed adaptive management and changes were reported to the IA and EA. The ProDoc included a monitoring plan without a risk management, however during the execution of the project the coordinator in charge of reporting the different periods included this component in the respective PIR and it could be noted that it was adequately applied in the monitoring of the project and satisfactorily reported in the PIRs.

*Question: What were the challenges and outcomes regarding the project's completed Knowledge Management Approach, including: Knowledge and Learning Deliverables (e.g. website/platform development); Knowledge Products/Events; Communication Strategy; Lessons Learned and Good Practice; Adaptive Management Actions? (This should be based on the documentation approved at CEO Endorsement/Approval)*

*Response: (Review report paragraphs 106, 107).*

As shown by the satisfactory achievement of the outputs in Component 4: "Generation of national biosafety information," the reviewer considers that the outcome: "Access to information on LMOs and how they should be managed provides regulators and stakeholders with the information they need to carry out their functions," was partially achieved. Based on the analysis of the outputs that contribute to achieving the outcome of this component of the project, it can be seen that the project made efforts to make relevant information on biosafety available to the institutions in charge of LMO management in Panama and also to the general public, thus contributing to a well-informed society on this issue. The information on the portal created within the project corresponds to the information uploaded during its timeframe, and has not been updated since then, therefore does not yet serve as a tool for communication and management of LMOs among the institutions in charge of handling these organisms. The Portal exists, but it is an information exchange center that is not currently used by the institutions involved in biosafety in Panama, nor is it in the minds of the persons interviewed, who are aware of its existence but do not use it.

Outcome 5 (Public awareness, education, and participation in biosafety-related issues are strengthened, which improves the quality of the debate on biosafety) within project component 5: "Promotion of public awareness, education and public participation in matters relating to biosafety" was moderately achieved during project implementation according to the reviewer's analysis. According to the activities reported in the PIRs and in the final report, it can be seen that

work was done on public awareness related to LMOs. Outreach materials were produced, and a public awareness campaign was launched in some locations in Panama City. The agency hired for this campaign reported high number of visitors to the developed exhibition, but there was no assessment as to whether the different sectors of the public have increased their knowledge about LMOs and have a better understanding of this topic as a result of this campaign. The outputs established within this component in the project design are vaguely formulated, which makes it difficult to analyze them and therefore how they contributed to the achievement of the outcome of this component of the project. In general terms, it can be concluded that the project worked on this component but that the impact of the outreach activities on the knowledge and education of the general public remains to be evaluated. During the interviews conducted by the reviewer on her visit to Panama, it was found that the interviewees had scarce information about the outreach videos produced as part of the project or the awareness-raising campaign carried out. While it is true that these products were not directed to the project's main stakeholders, the reviewer was surprised by the lack of knowledge about the implementation of these activities among persons of the institutions that were part of the project's steering committee.

*Question: What are the main findings of the evaluation?*

*Response: (Review report paragraph 5).*

According to the review, the project is of strategic relevance for Panama to achieve an effective application of the CPB through the development of capacities that will allow an adequate handling of LMOs, which will contribute to avoid risks to biodiversity, human health and the national economy. Considering the high biodiversity of this country and the fact that it is also the center of origin and domestication of several crops, there is an evident need for a national biosafety system to ensure the safe transfer, handling and use of LMOs. The release of LMOs into the environment without adequate biosafety measures could pose a threat to native species and the consequences this could have on the environment, health and socioeconomic aspects of this country. During the TR, a number of findings were identified which are described in detail in the main body of this report, but the main findings are outlined below.

- The project approach (environmental governance, biodiversity conservation, national biosafety frameworks) was innovative and ensured good participation and appropriation from main stakeholders, especially the members of the NBC.
- The project objectives and strategies are aligned with policies and plans of GEF, UNEP t and national public institutions.
- The project was well designed, with good vertical and horizontal logic, indicators that did not meet SMART standards in all cases, a M&E plan with some limitations, good stakeholder inclusion, and some consideration of social and environmental impacts for project beneficiaries. Indicators were presented at the outcome level, which were aggregated to the objective level. Some outcomes did not fully reflect the activities to generate them.
- Administrative changes in government institutions constitute an external factor that influenced project implementation. ANAM was transformed into a ministry: MiAmbiente. The project adapted strategically to this change, but it entailed delays in project inception and challenges for its administration.
- The project contributed to strengthening the legal framework for biosafety in Panama, identified the institutions that need strengthening for the adequate handling of LMOs and contributed to Panama's compliance with its obligations under the Cartagena Protocol and to safeguarding the country's biodiversity (Outcome 1).

- A series of capacity building workshops carried out during the project strengthened institutional capacity to evaluate and manage LMOs in Panama (Outcome 2).
- The project conducted training activities for competent authorities on how to establish an integrated monitoring, inspection and response system to track authorized LMOs, enforce regulations and respond to unintentional releases of LMOs. However, this system has not yet been established in Panama (Outcome 3).
- The project established a website: <https://bioseguridad.gob.pa> to promote the exchange of information on biosafety at national and international level. The information on this website corresponds to that uploaded during the project, has not been updated and does not yet serve as a tool for communication and management of LMOs among the institutions in charge of handling of these organisms (Outcome 4).
- The project contributed to providing information on biosafety-related issues to the general public that may contribute to public awareness, education and opinion on biosafety-related issues to some extent (Outcome 5).
- The project had a serious delay in its implementation, caused by administrative problems that prevented a timely inception and later by the Covid 19 pandemic. As a result, the project had three extensions. In practice, this ensured moderately satisfactory completion of outputs and generation of outcomes. The project extensions did not affect funding and, overall, the project was cost-effective.
- The sustainability and replicability of many project results is dependent on continued financial resources. There are public and private institutions committed to providing continued technical support and monitoring, but ongoing funding is needed. There is insufficient consolidation of a financial strategy and corresponding mechanisms to ensure sustainability.
- The institutional sustainability at the NBC level has been strengthened and constitutes a positive enabling environment for sustenance of results. At the national level, although there is an expressed institutional interest to support the onward progress of impact at scale, coordination and collaboration between institutions is not optimal, due in part to the fact that biosafety is not a priority on the agenda of the institutions. There is no staff dedicated exclusively to this topic and there are no specific institutional units/areas in charge of the appropriate handling of LMOs in Panama.
- The Project was managed professionally with high quality, committed staff. Good teamwork. Initial hiring was delayed, but eventually resolved.
- The project governance relied on a Project Steering Committee that was limited to NBC members and UNEP representative with occasional input from other biosafety-related institutions.
- UNEP backstopping, particularly by the Task Manager, was effective and welcomed by the project team and partner institutions.
- Participation and cooperation with key stakeholders were maintained throughout project implementation. Inclusion of other partners at the national level was a challenge.
- The project did not have a clear gender strategy, but in practice it did involve and empower women and youth.



**ANNEX XI. IMPLEMENTATION PLAN OF RECOMMENDATIONS**

**Project Title and Reference No.:** Consolidation of National Capacities for the Full Implementation of the Cartagena Protocol on Biosafety in Panama GEF ID 3631

**Contact Person (TM/PM):** TM: Robert Erath robert.erath@un.org PM: Andrea Brusco andrea.brusco@un.org

|   | <b>PLANS</b>   |   |   |  |
|---|--|---|---|--|
| <b>RECOMMENDATIONS</b>  | <b>ACCEPTED<br/>(YES/NO/PARTIALLY)</b>   | <b>WHAT WILL BE DONE?</b>   | <b>EXPECTED<br/>COMPLETION<br/>DATE</b> | <b>REPOSIBLE<br/>OFFICER/ UNIT/<br/>DIVISION/ AGENCY</b> |
| 1. MiAmbiente as the EA in charge of the technical part of this project plays a crucial role in institutional sustainability. Considering that the project succeeded in creating a space for dialogue and exchange between key stakeholders (members of the NBC), it is recommended that MiAmbiente continues to actively participate in the NBC meetings and promote the implementation of the project's outputs to contribute to the strengthening of the biosafety | None of the above for now. This requires further consultation with the partners before a decision is made. | <p>Since this recommendation is addressed to MiAmbiente, a consultation will be necessary with them to achieve a meaningful response to this recommendation.</p> <p>That being said, let there be no doubt that UNEP, both as IA and EA, will endeavor to maintain a constructive dialogue with MiAmbiente regarding this recommendation.</p> | TBD                                     | TBD  |

|  | PLANS  |   |                                |   |
|--|--|---|--------------------------------|---|
| RECOMMENDATIONS  | ACCEPTED<br>(YES/NO/PARTIALLY)   | WHAT WILL BE DONE?  | EXPECTED<br>COMPLETION<br>DATE | REPOSIBLE<br>OFFICER/ UNIT/<br>DIVISION/ AGENCY |
| procedures related to the proper handling of LMOs.   |  |   |                                |   |
| 2. One of the key elements for correct management and decision making in the field of biosafety is access to information. This is a fundamental pillar within the CPB that establishes the BCH and urges the countries' parties to work on this matter. Since this project is framed within this international agreement, and its objective was related to the effective application of the CPB, it is recommended that MiAmbiente make the necessary efforts to activate and update the information on the web portal developed by the project in order to promote access to information for decision makers and institutions in charge of risk assessments, and to contribute to the knowledge on biosafety in the general public. | None of the above for now. This requires further consultation with the partners before a decision is made. | <p>Since this recommendation is addressed to MiAmbiente, a consultation will be necessary with them to achieve a meaningful response to this recommendation.</p> <p>That being said, let there be no doubt that UNEP, both as IA and EA, will endeavor to maintain a constructive dialogue with MiAmbiente regarding this recommendation.</p> | TBD                            | TBD   |



|   | PLANS                          |   |                                |  |
|---|--------------------------------|---|--------------------------------|--|
| RECOMMENDATIONS   | ACCEPTED<br>(YES/NO/PARTIALLY) | WHAT WILL BE DONE?  | EXPECTED<br>COMPLETION<br>DATE | REPOSIBLE<br>OFFICER/ UNIT/<br>DIVISION/ AGENCY                |
| 3. For the specific execution of this project, and due to the challenges presented for its administrative and financial management, the strategy adopted to overcome this situation was to select ROLAC as the EA for its administrative management. This implied an internal EA for the project. It is recommended that UNEP analyze this experience and see if this model is recommendable or not for the execution of future projects. | YES                            | <p>Nothing really needs to be done here.</p> <p>On the one hand, the challenges mentioned by the review have already been fully assessed and we are in full agreement that the model is not recommendable at all for all the reasons laid out in this report.</p> <p>On the other hand, GEF directives do not allow the “internal execution” modality any more as a rule with very few exceptions requiring strict justification. So even if we wanted to, the model has already been canceled.</p> | Done                           | GEF directives oblige UNEP as an Implementing Agency to comply |
| 4. This project is framed within the implementation of an international agreement: the Cartagena Protocol on Biosafety to the Convention on Biological Diversity. The different GEF projects implemented through UNEP have strengthened the capacities of countries to respond to their obligations within this protocol and have supported countries to have the tools needed to   | YES                            | This recommendation makes eminent sense. The response from UNEP at the corporate level will require a process of dialogue and consultation to establish the best route to collaborate in facing the challenges in reference.  | TBD                            | TBD  |

|  | PLANS                          |                    |                                |   |
|--|--------------------------------|--------------------|--------------------------------|---|
| RECOMMENDATIONS  | ACCEPTED<br>(YES/NO/PARTIALLY) | WHAT WILL BE DONE? | EXPECTED<br>COMPLETION<br>DATE | REPOSIBLE<br>OFFICER/ UNIT/<br>DIVISION/ AGENCY |
| appropriately manage biosafety related to LMOs. Modern biotechnology continues to develop and present regulatory challenges for its proper application. In this regard, and due to the implications that this matter has for biodiversity conservation, sustainable use, and health and socioeconomic aspects, UNEP may wish to talk with the Secretariat of the CBD to learn about the needs or challenges that countries continue to face in dealing with these technological developments and to explore new initiatives to support them. |                                |                    |                                |   |

The following is a summary of lessons learned from some of the project's experiences and based upon explicit findings of the review. They briefly describe the context from which the lessons are derived, and the potential for wider application:

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| <b>Lesson Learned #1:</b> | The delay between the approval of a project and the inception of its activities may have an impact on the established objectives, outcomes, and outputs because the delay may represent changes in the national and international environment.   |
| <b>Context/comment:</b>   | This project was approved by the GEF in 2011 but its active phase started in 2017, six years after its approval. The context of the project in 2011 in relation to the treatment of biosafety related to LMOs in the national debate was different than in 2017. The attention to this topic at the government level was also different. Although this matter is still valid until today, the perspectives and the challenges to be met change over time. Therefore, it would have been positive if there had been a stated rethinking and adjustment of outputs and outcomes for the benefit of the project's impact (Finding 5, 19; Conclusion 3).   |
| <b>Lesson Learned #2:</b> | Different SMART indicators are needed along the project's impact pathway (output, outcome and impact).   |
| <b>Context/comment:</b>   | This project was not designed with good quality indicators. Although indicators are presented in the project's design, they were not well formulated and did not necessarily meet the standards of a SMART indicator (specific, measurable, achievable, relevant, and time-oriented) and many of them did not serve to measure the project's performance. In the absence of good quality indicators, the achievement of results, outputs, and impact cannot be evaluated objectively (Finding 4, Conclusion 2).  |
| <b>Lesson Learned #3:</b> | Optimal stakeholder participation is essential to generate the planned outcomes and meet the project's goal.   |
| <b>Context/comment:</b>   | In this project, the continuous participation of key stakeholders contributed to achieving the project's goal: to strengthen the national biosafety framework in Panama and contribute to the country's effective compliance with the CPB. However, the participation of other stakeholders was difficult to coordinate, with little participation from academia, the private sector, and NGOs. This is a pending issue that should be considered in new biosafety initiatives. It is important to note that the project generated a space for dialogue and interaction among the institutions that are part of the NBC (key stakeholders) and this is very positive for the sustainability of the treatment of this topic in Panama (Findings 8, 15, 29; Conclusion 2). |
| <b>Lesson Learned #4:</b> | The outcomes and outputs planned to be achieved in a project should be directly related to the project's possibilities and not depend on political decisions external to the project.  |

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| <b>Context/comment:</b> | The project design established certain outcomes and outputs whose achievement did not depend exclusively on the efforts made by a project. Legal reforms, adoption of laws, and regulatory processes and procedures do not depend on the will of the project's executors or participants. This is a consideration that should be reviewed when replicating initiatives related to strengthening a governmental framework, in this case, of the national biosafety framework in Panama (Findings 9, 11, 14, 23; Conclusions 1, 6). |
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| <b>Lesson Learned #5:</b> | Capacity-building activities enable the achievement of products and results, especially when a project involves technological development that requires regulation for its appropriate application.  |
| <b>Context/comment:</b>   | The activities of components 1, 2 and 3 were mainly based on capacity-building activities to contribute to the achievement of the declared outputs and outcomes. Capacity building is definitely a key tool, especially in projects related to scientific and technological development such as modern biotechnology and the regulation that accompanies these developments, in this specific case, biosafety related to LMOs. This lesson is positive and demonstrates the importance of replication in new initiatives of this type. However, a relevant comment is that as such capacity-building activities are a tool and not the product itself. This is something that in some cases was assumed in this project and should be better evaluated in other occasions (i.e. a flowchart product of a workshop is not necessarily the flowchart that is applied in a national regulatory process) (Finding 10, Conclusion 6). |

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| <b>Lesson Learned #6:</b> | Access to information of good quality and education and public awareness campaigns are key elements to promote risk assessment processes and to foster a well-informed population on biosafety issues.  |
| <b>Context/comment:</b>   | The project generated a web portal for the exchange of information related to LMOs, whose information should be updated and should serve as a management tool in the risk-assessment processes among the institutions in charge of this topic (institutions that form the NBC). In the same way, new initiatives should work on the impact and behavioral change of public awareness campaigns on controversial topics such as those related to LMOs. It is not enough to develop products (videos, exhibitions) but to analyze their real impact (Finding 31, Conclusion 4). |

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| <b>Lesson Learned #7:</b> | In the absence of a clear application of a gender approach, opportunities to strategically plan and monitor the participation and empowerment of women, youth, and disadvantaged groups are lost.   |
| <b>Context/comment:</b>   | The project did not have a clear gender strategy, plan, or indicators. The project's reporting on gender achievements was marginal. Therefore, it was not clear what and how the project addressed gender inclusion, differentiation of stakeholder groups (by gender, age, ethnicity, or disability), and its positive results were not adequately highlighted |

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|  | <p>or communicated. Despite this, in project activities, including SC meetings and decision making, women's participation was very well represented. In most of the training courses the number of women outnumbered men, but this is not well identified in the project reporting and is not seen as an impact (Findings 22 and 30).</p> |
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## ANNEX XII. QUALITY ASSESSMENT OF THE REVIEW REPORT

**Review Title:** “Consolidation of National Capacities for the Full Implementation of the Cartagena Protocol on Biosafety in Panama” (GEF ID 3631)

**Consultant:** Maria de Lourdes Torres

All UNEP Reviews are subject to a quality assessment by the UNEP Evaluation Office. This is an assessment of the quality of the review product (i.e. Main Review Report).

|   | UNEP Evaluation Office Comments   | Final Review Report Rating |
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| <b>Report Quality Criteria</b>  |   |                            |
| <p><b>Quality of the Executive Summary</b></p> <p><u>Purpose:</u> acts as a stand alone and accurate summary of the main review product, especially for senior management.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• concise overview of the review object</li> <li>• clear summary of the review objectives and scope</li> <li>• overall review rating of the project and key features of performance (strengths and weaknesses) against exceptional criteria</li> <li>• reference to where the review ratings table can be found within the report</li> <li>• summary response to key strategic review questions</li> <li>• summary of the main findings of the exercise/synthesis of main conclusions</li> <li>• summary of lessons learned and recommendations.</li> </ul>  | <p><b>Final report (coverage/omissions):</b><br/>The Executive Summary is well written and covers all required elements. However, it lacks a summary response to key strategic review questions, which are only mentioned. It also does not mention where the full ratings table is in the body of the report.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section stands alone well, describing the main findings based on the assessment of exceptional review criteria. However, some text presented in paragraphs 1 and 2 is repeated. Moreover, in some sentences, the Reviewer used the word ‘evaluation’ instead of ‘review’. This has been corrected by the Evaluation Office.</p> | 5                          |
| <p><b>Quality of the ‘Introduction’ Section</b></p> <p><u>Purpose:</u> introduces/situates the evaluand in its institutional context, establishes its main parameters (time, value, results, geography) and the purpose of the review itself.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• institutional context of the project (sub-programme, Division, Branch etc)</li> <li>• date of PRC approval, project duration and start/end dates</li> <li>• number of project phases (where appropriate)</li> <li>• results frameworks to which it contributes (e.g. POW Direct Outcome)</li> <li>• coverage of the review (regions/countries where implemented)</li> <li>• implementing and funding partners</li> <li>• total secured budget</li> <li>• whether the project has been reviewed/evaluated in the past (e.g. mid-term, external agency etc.)</li> <li>• concise statement of the purpose of the review and the key intended audience for the findings.</li> </ul> | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed except a description of the institutional context of the project (sub-programme, Division, Branch etc), and the results frameworks to which the project contributes (e.g. POW Direct Outcome).</p> <p><b>Final report (strengths/weaknesses):</b><br/>The report presents a concise introduction and description of the evaluand. It briefly describes the Inception Report phase, which fits better in the Review Methods section and would have made this section more focused and concise.</p>  | 5                          |

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| <p><b>Quality of the 'Review Methods' Section</b></p> <p><u>Purpose:</u> provides reader with clear and comprehensive description of review methods, demonstrates the <u>credibility</u> of the findings and performance ratings.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• description of review data collection methods and information sources</li> <li>• justification for methods used (e.g. qualitative/quantitative; electronic/face-to-face)</li> <li>• number and type of respondents (see <i>table template</i>)</li> <li>• selection criteria used to identify respondents, case studies or sites/countries visited</li> <li>• strategies used to increase stakeholder engagement and consultation</li> <li>• methods to include the voices/experiences of different and potentially excluded groups (e.g. vulnerable, gender, marginalised etc)</li> <li>• details of how data were verified (e.g. triangulation, review by stakeholders etc.)</li> <li>• methods used to analyse data (scoring, coding, thematic analysis etc)</li> <li>• review limitations (e.g. low/ imbalanced response rates across different groups; gaps in documentation; language barriers etc)</li> <li>• ethics and human rights issues should be highlighted including: how anonymity and confidentiality were protected. Is there an ethics statement? E.g. <i>'Throughout the review process and in the compilation of the Final Review Report efforts have been made to represent the views of both mainstream and more marginalised groups. All efforts to provide respondents with anonymity have been made.'</i></li> </ul> | <p><b>Final report (coverage/omissions):</b><br/>All elements are well addressed. However, the section would have benefited from a table summarising the respondents approached and those who participated in the data collection phase (UNEP Evaluation Office provides a proposed table template for this).</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section presents a clear and comprehensive description of the review methods, including of the data analysis process, review limitations and the consultant's efforts to overcome them.</p>  | 5 |
| <p><b>Quality of the 'Project' Section</b></p> <p><u>Purpose:</u> describes and <u>verifies</u> key dimensions of the evaluand relevant to assessing its performance.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• <i>Context:</i> overview of the main issue that the project is trying to address, its root causes and consequences on the environment and human well-being (i.e. synopsis of the problem and situational analyses)</li> <li>• <i>Results framework:</i> summary of the project's results hierarchy as stated in the ProDoc (or as officially revised)</li> <li>• <i>Stakeholders:</i> description of groups of targeted stakeholders organised according to relevant common characteristics</li> <li>• <i>Project implementation structure and partners:</i> description of the implementation structure with diagram and a list of key project partners</li> <li>• <i>Changes in design during implementation:</i> any key events that affected the project's scope or parameters should be described in brief in chronological order</li> <li>• <i>Project financing:</i> completed tables of: (a) budget at design and expenditure by components (b) planned and actual sources of funding/co-financing</li> </ul>  | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed. The section on the <i>Results Framework</i> (which is called 'Objectives and components' in the report) could have benefitted from a description of the higher-level results (i.e. Intermediate States and Impact).</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section presents a comprehensive and detailed analysis of the key dimensions of the evaluand. However, the <i>Changes in design during implementation</i> section could have described the reasons for some of the changes in the project. It is not clear why the project initiation was delayed by two years, and there is no explanation for the three no-cost extensions (which pushed the project to 10 years, instead of the originally proposed 4 years). In addition, the <i>Project financing</i> section is missing a table on planned versus actual funding. Tables 4 and 5 only present planned figures.</p> | 5 |

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| <p><b>Quality of the Theory of Change</b></p> <p><u>Purpose:</u> to set out the TOC at Review in diagrammatic and narrative forms to support consistent project performance; to articulate the causal pathways with drivers and assumptions and justify any reconstruction necessary to assess the project's performance.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• description of how the <i>TOC at Review</i><sup>51</sup> was designed (who was involved etc)</li> <li>• confirmation/reconstruction of results in accordance with UNEP definitions</li> <li>• articulation of causal pathways</li> <li>• identification of drivers and assumptions</li> <li>• identification of key actors in the change process</li> <li>• summary of the reconstruction/results re-formulation in tabular form. <i>The two results hierarchies (original/formal revision and reconstructed) should be presented as a two-column table to show clearly that, although wording and placement may have changed, the results 'goal posts' have not been 'moved'. This table may have initially been presented in the Inception Report and should appear somewhere in the Main Review report.</i></li> </ul> | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed except the table with the reformulation of results statements.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section presents the ToC at Review both in diagrammatic and narrative forms. However, the articulation of the causal pathways in narrative form is very limited.</p> <p>As mentioned above, the project's original result statements were not reformulated at Review to comply with the UNEP Glossary of results definitions. In fact, most project outcomes presented in the reconstructed ToC (rToC) represent results at the output level (products/ services provided or increased knowledge/capacity of project stakeholders), whereas project outputs represent in most cases deliverables (completed activities). Moreover, it is unclear why instead of presenting an 'Impact' statement after the Intermediate States as the highest level of result, the rToC presents a Strategic Objective and a Goal. In addition, some assumptions listed are actually drivers because the project had some level of control over them (e.g., target audiences are identified to raise interest in biotechnology and biosafety related topics).</p> | 4   |
| <p><b>Quality of Key Findings within the Report</b></p> <p><u>Presentation of evidence:</u> nature of evidence should be clear (interview, document, survey, observation, online resources etc) and evidence should be explicitly triangulated unless noted as having a single source.</p> <p><u>Consistency within the report:</u> all parts of the report should form consistent support for findings and performance ratings, which should be in line with UNEP's Criteria Ratings Matrix.</p> <p><u>Findings Statements (where applicable):</u> The frame of reference for a finding should be an individual review criterion or a strategic question from the TOR. <b>A finding should go beyond description and uses analysis to provide insights that aid learning specific to the evaluand.</b> In some cases a findings statement may articulate a key element that has determined the performance rating of a criterion. Findings will frequently provide insight into 'how' and/or 'why' questions.</p>  | <p><b>Final report (strengths/weaknesses):</b><br/>Evidence presented by the reviewer is clear and consistent. Each evaluation criterion has finding statements.</p> <p>Many findings effectively provide insight beyond the review's observations to, for example, explain why the project performed a certain way (e.g., Finding 8: Key stakeholders at the local level and service providers were appropriately involved in the generation of outputs and this contributed to their good quality.).</p> <p>However, other findings simply describe the review's observation vis a vis the criterion. For example, finding 11 states that the project "conducted training activities for competent authorities" but it does not go beyond a description of the condition to explain why or what effect this may have on the project's goals. Other findings seem far-fetched compared with the information provided. For</p>   | 4.5 |

<sup>51</sup> During the Inception Phase of the review process a *TOC at Review Inception* is created based on the information contained in the approved project documents (these may include either logical framework or a TOC or narrative descriptions), formal revisions and annual reports etc. During the review process this TOC is revised based on changes made during project intervention and becomes the *TOC at Review*.



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|  | example, finding 1 states that the “project approach (...) was innovative and ensured good participation and appropriation from main stakeholders.” The assessment under this criterion does not include an analysis of stakeholder participation or project approach, it only describes how the project aligned with partners, donors, and national priorities.  |   |
| <p><b>Quality of ‘Strategic Relevance’ Section</b></p> <p><u>Purpose:</u> to present evidence and analysis of project strategic relevance with respect to UNEP, partner and geographic policies and strategies at the time of project approval.</p> <p>To include:</p> <p>Assessment of the evaluand’s relevance vis-à-vis:</p> <ul style="list-style-type: none"> <li>• Alignment to the UNEP Medium Term Strategy (MTS), Programme of Work (POW) and Strategic Priorities</li> <li>• Alignment to Donor/GEF/Partners Strategic Priorities</li> <li>• Relevance to Regional, Sub-regional and National Environmental Priorities</li> <li>• Complementarity with Existing Interventions: complementarity of the project at design (or during inception/mobilisation<sup>52</sup>), with other interventions addressing the needs of the same target groups.</li> </ul> | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section effectively describes the project’s alignment with the strategic priorities of Panama and GEF. While it lists UNEP subprograms, the section does not specify Direct Outcomes or Expected Accomplishments of the UNEP MTS and POW, which would have provided a clearer linkage to UNEP priorities.</p> <p>The sub-section on <i>Complementarity with Existing Interventions/Coherence</i> should have presented a more detailed analysis of the ongoing and planned initiatives (under the same sub-programme, other UNEP sub-programmes, or being implemented by other agencies within the same country, sector or institution) that aim to address the needs of the same target groups. It only states that the project contributed to an existing national biosafety system.</p> | 4 |
| <p><b>Quality of the ‘Quality of Project Design’ Section</b></p> <p><u>Purpose:</u> to present a summary of the strengths and weaknesses of the project design, on the basis that the detailed assessment was presented in the Inception Report.</p>   | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section adequately addresses the project design strengths and weaknesses.</p>  | 5 |
| <p><b>Quality of the ‘Nature of the External Context’ Section</b></p> <p><u>Purpose:</u> to describe and recognise, when appropriate, key <u>external</u> features of the project’s implementing context that limited the project’s performance (e.g. conflict, natural disaster, political upheaval<sup>53</sup>), and how they affected performance.</p> <p>While additional details of the implementing context may be informative, this section should clearly record whether or not a major and</p>   | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section describes two external factors that affected the project, and the project team’s efforts to overcome them. However, considering the project’s duration, the two external factors described could not have affected the project very negatively. The first</p>  | 4 |

<sup>52</sup> A project’s inception or mobilization period is understood as the time between project approval and first disbursement. Complementarity during project implementation is considered under Efficiency, see below.

<sup>53</sup> Note that ‘political upheaval’ does not include regular national election cycles, but unanticipated unrest or prolonged disruption. The potential delays or changes in political support that are often associated with the regular national election cycle should be part of the project’s design and addressed through adaptive management of the project team.

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| <p>unexpected disrupting event took place during the project's life in the implementing sites.</p>  | <p>factor listed (administrative changes in government institutions) is not considered a major, unanticipated political event under the Evaluation Office's criteria. The second factor (Covid-19) only affected the project's last two years since implementation was from 2011 to 2021.</p>  |            |
| <p><b>Quality of 'Effectiveness' Section</b></p> <p><b>(i) Availability of Outputs:</b></p> <p><u>Purpose:</u> to present a well-reasoned, complete and evidence-based assessment of the outputs made available to the intended beneficiaries.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• a convincing, evidence-supported and clear presentation of the outputs made available by the project compared to its approved plans and budget</li> <li>• assessment of the nature and scale of outputs versus the project indicators and targets</li> <li>• assessment of the timeliness, quality and utility of outputs to intended beneficiaries</li> <li>• identification of positive or negative effects of the project on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).</li> </ul>  | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed. The <i>Review Methods</i> section explained that the technical nature of the project—focused on increasing capacity of government agencies— meant that the project did not address effects on disadvantaged groups.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section provides evidence-supported and clear presentation of the outputs made available by the project in a table. It mentions efforts to corroborate project-documented outputs with interviews and other sources. For some outputs, it also assesses the timeliness, quality, and utility for intended beneficiaries.</p> <p>The Evaluation Office notes that the output indicators (with their baselines and targets) were not included in the table. This is because output indicators were missing when the project was originally designed. However, the discussion on the actual delivery of each output is not fully developed. More detailed information on the delivery status of each output would provide a clearer picture of the project's effectiveness. For example, for Output 1.2.2. "timely and coordinated responses to notifications and requirements from the CPB Secretariat", the review does not provide any information apart from 1 sentence taken from the project's final report.</p> | <p>4.5</p> |
| <p><b>ii) Achievement of Project Outcomes:</b></p> <p><u>Purpose:</u> to present a well-reasoned, complete and evidence-based assessment of the uptake, adoption and/or implementation of outputs by the intended beneficiaries. This may include behaviour changes at an individual or collective level.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• a convincing and evidence-supported analysis of the uptake of outputs by intended beneficiaries</li> <li>• assessment of the nature, depth and scale of outcomes versus the project indicators and targets</li> <li>• discussion of the contribution, credible association and/or attribution of outcome level changes to the work of the project itself</li> <li>• any constraints to attributing effects to the projects' work</li> <li>• identification of positive or negative effects of the project on disadvantaged groups, including those</li> </ul> | <p><b>Final report (coverage/omissions):</b><br/>The section presents a brief assessment of output uptake and outcome achievement.</p> <p><b>Final report (strengths/weaknesses):</b><br/>However, it could have benefited from a table with outcome indicators and baselines/targets. The lack of specific outcome indicator targets hinders a comprehensive assessment of the achievement of the results at the outcome level. As mentioned in the assessment of the 'Quality of the ToC', the Evaluation Office notes that most outcome statements should have been reformulated at Review to comply with the UNEP standards.</p>   | <p>3.5</p> |

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| <p>with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).</p>   |   |            |
| <p><b>(iii) Likelihood of Impact:</b></p> <p><u>Purpose:</u> to present an integrated analysis, guided by the causal pathways represented by the TOC, of all evidence relating to likelihood of impact, including an assessment of the extent to which drivers and assumptions necessary for change to happen, were seen to be holding.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• an explanation of how causal pathways emerged and change processes can be shown</li> <li>• an explanation of the roles played by key actors and change agents</li> <li>• explicit discussion of how drivers and assumptions played out</li> <li>• identification of any unintended negative effects of the project, especially on disadvantaged groups, including those with specific needs due to gender, vulnerability or marginalisation (e.g. through disability).</li> </ul> | <p><b>Final report (coverage/omissions):</b><br/>The section lacks a detailed analysis of most of the elements that had to be discussed in this section, i.e., likelihood of impact based on the casual pathways represented in the rToC; whether drivers and assumptions (identified in the rToC) are expected to hold; and unintended negative effects of the project.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section states that the project objective was likely achieved based on the statement that most outputs and outcomes were achieved, when in fact, most outputs and outcomes were only partially achieved. The section does not discuss any of the intermediate states, or whether the drivers and assumptions between the various result levels held. The section lists the stakeholders that primarily benefitted from the project (i.e., national ministries), but it does not explicitly discuss their roles and actions in the adoption of outputs to achieve outcomes or intermediate states.</p> | <p>2.5</p> |
| <p><b>Quality of 'Financial Management' Section</b></p> <p><u>Purpose:</u> to present an integrated analysis of all dimensions evaluated under financial management and include a completed 'financial management' table (may be annexed).</p> <p>Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> <li>• <i>adherence</i> to UNEP's financial policies and procedures</li> <li>• <i>completeness</i> of financial information, including the actual project costs (total and per activity) and actual co-financing used</li> <li>• <i>communication</i> between financial and project management staff</li> </ul>   | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The report adequately addresses the three dimensions under financial management. Some of the elements related to the <i>Completeness of financial information</i> sub-section are included in Table 9, and although it is not mentioned in this section, the total actual project cost is in the Project Identification Table.</p>   | <p>5</p>   |
| <p><b>Quality of 'Efficiency' Section</b></p> <p><u>Purpose:</u> to present an integrated analysis of all dimensions evaluated under efficiency (i.e. the primary categories of cost-effectiveness and timeliness).</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• time-saving measures put in place to maximise results within the secured budget and agreed project timeframe</li> <li>• discussion of making use, during project implementation, of/building on pre-existing institutions, agreements and partnerships, data sources, synergies and complementarities with other initiatives, programmes and projects etc.</li> </ul>   | <p><b>Final report (coverage/omissions):</b><br/>All required elements are addressed.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section effectively addresses the implications of delays and no-cost extensions on the project. It also discusses the project's use of existing institutions, agreements, and partnerships.</p>  | <p>5</p>   |

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| <ul style="list-style-type: none"> <li>• implications of any delays and no cost extensions</li> <li>• the extent to which the management of the project minimised UNEP's environmental footprint.</li> </ul>  |   |   |
| <p><b>Quality of 'Monitoring and Reporting' Section</b></p> <p><u>Purpose:</u> to present well-reasoned, complete and evidence-based assessment of the evaluand's monitoring and reporting.</p> <p>Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> <li>• quality of the monitoring design and budgeting (including SMART results with measurable indicators, resources for MTE/R etc.)</li> <li>• quality of monitoring of project implementation (including use of monitoring data for adaptive management)</li> <li>• quality of project reporting (e.g. PIMS and donor reports) \</li> </ul>  | <p><b>Final report (strengths/weaknesses):</b></p> <p>The report presents an assessment of the three dimensions under Monitoring and Reporting. The section describes the monitoring design and budgeting well, including challenges related to adequate resource allocation and lack of SMART indicators. However, the sub-sections on <i>monitoring of project implementation</i> and <i>project reporting</i> should have been presented as standalone and not combined.</p> | 5 |
| <p><b>Quality of 'Sustainability' Section</b></p> <p><u>Purpose:</u> to present an integrated analysis of all dimensions evaluated under sustainability (i.e. the endurance of benefits achieved at outcome level).</p> <p>Consider how well the report addresses the following:</p> <ul style="list-style-type: none"> <li>• socio-political sustainability</li> <li>• financial sustainability</li> <li>• institutional sustainability</li> </ul>   | <p><b>Final report (strengths/weaknesses):</b></p> <p>The section presents an integrated analysis of the three dimensions under sustainability.</p>   | 5 |
| <p><b>Quality of Factors Affecting Performance Section</b></p> <p><u>Purpose:</u> These factors are not always discussed in stand-alone sections and may be integrated in the other performance criteria as appropriate. However, if not addressed substantively in this section, a cross reference must be given to where the topic is addressed and that entry must be sufficient to justify the performance rating for these factors.</p> <p>Consider how well the review report, either in this section or in cross-referenced sections, covers the following cross-cutting themes:</p> <ul style="list-style-type: none"> <li>• preparation and readiness</li> <li>• quality of project management and supervision<sup>54</sup></li> <li>• stakeholder participation and co-operation</li> <li>• responsiveness to human rights and gender equality</li> <li>• environmental and social safeguards</li> <li>• country ownership and driven-ness</li> <li>• communication and public awareness</li> </ul> | <p><b>Final report (strengths/weaknesses):</b></p> <p>An assessment of factors affecting performance is effectively presented as a stand-alone section within the report.</p>   | 5 |
| <p><b>Quality of the Conclusions Section</b></p>  | <p><b>Final report (coverage/omissions):</b></p>  | 5 |

<sup>54</sup> In some cases 'project management and supervision' will refer to the supervision and guidance provided by UNEP to implementing partners and national governments while in others, specifically for GEF funded projects, it will refer to the project management performance of the executing agency and the technical backstopping provided by UNEP. This includes providing the answers to the questions on Core Indicator Targets, stakeholder engagement, gender responsiveness, safeguards and knowledge management, required for the GEF portal.

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| <p><b>(i) Conclusions Narrative:</b></p> <p><u>Purpose:</u> to present summative statements reflecting on prominent aspects of the performance of the evaluand as a whole, they should be derived from the synthesized analysis of evidence gathered during the review process.</p> <p>To include:</p> <ul style="list-style-type: none"> <li>• compelling narrative providing an integrated summary of the strengths and weakness in overall performance (achievements and limitations) of the project</li> <li>• clear and succinct response to the key strategic questions</li> <li>• human rights and gender dimensions of the intervention should be discussed explicitly (e.g. how these dimensions were considered, addressed or impacted on)</li> </ul>  | <p>The Conclusions section is missing the review's responses to the key strategic questions.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The section highlights some of the project findings, achievements, challenges, strengths and weaknesses.</p>                                    |   |
| <p><b>ii) Utility of the Lessons:</b></p> <p><u>Purpose:</u> to present both positive and negative lessons that have potential for wider application and use (replication and generalization)</p> <p>Consider how well the lessons achieve the following:</p> <ul style="list-style-type: none"> <li>• are rooted in real project experiences (i.e. derived from explicit review findings or from problems encountered and mistakes made that should be avoided in the future)</li> <li>• briefly describe the context from which they are derived and those contexts in which they may be useful</li> <li>• do not duplicate recommendations</li> </ul>   | <p><b>Final report (strengths/weaknesses):</b><br/>The review identified seven lessons learned, which are rooted in project experiences/challenges encountered during the implementation and that have potential for wider application. The lessons are not duplicative of the recommendations.</p> | 5 |
| <p><b>(iii) Utility and Actionability of the Recommendations:</b></p> <p><u>Purpose:</u> to present proposals for specific action to be taken by identified people/position-holders to resolve concrete problems affecting the project or the sustainability of its results.</p> <p>Consider how well the lessons achieve the following:</p> <ul style="list-style-type: none"> <li>• are feasible to implement within the timeframe and resources available (including local capacities) and specific in terms of who would do what and when</li> <li>• include at least one recommendation relating to strengthening the human rights and gender dimensions of UNEP interventions</li> <li>• represent a measurable performance target in order that the UNEP Unit/Branch can monitor and assess compliance with the recommendations.</li> </ul> <p><u>NOTES:</u></p> <p>(i) In cases where the recommendation is addressed to a third party, compliance can only be monitored and assessed where a contractual/legal agreement remains in place. Without such an agreement, the recommendation should be formulated to say that UNEP project staff should pass on the recommendation to the relevant third party in an effective or substantive manner. The effective transmission by UNEP of the recommendation will then be monitored for compliance.</p> | <p><b>Final report (strengths/weaknesses):</b><br/>The report presents four actionable recommendations to resolve concrete problems that affected the project. There is, however, no recommendation relating to strengthening the human rights or gender dimension.</p>                             | 5 |

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| <p>(ii) Where a new project phase is already under discussion or in preparation with the same third party, a recommendation can be made to address the issue in the next phase.</p>  |   |     |
| <p><b>Quality of Report Structure and Presentation</b></p> <p><b>(i) Structure and completeness of the report:</b></p> <p>To what extent does the report follow the UNEP Evaluation Office structure and formatting guidelines?<br/>Are all requested Annexes included and complete?</p> | <p><b>Final report (coverage/omissions):</b><br/>The report is complete and follows the Evaluation Office guidelines. All the required Annexes are included in the report.</p> <p><b>Final report (strengths/weaknesses):</b><br/>The absence of some of the EOU required tables, such as the reformulation of the result statements and some financial tables (e.g., planned and actual sources of funding/co-financing), represents weaknesses of the review.</p> | 5   |
| <p><b>(ii) Writing and formatting:</b></p> <p>Consider whether the report is well written (clear English language and grammar) with language that is adequate in quality and tone for an official document?<br/>Do visual aids, such as maps and graphs convey key information?</p>      | <p><b>Final report (strengths/weaknesses):</b><br/>The report is clear and well written, and the tone is adequate. It does not have any visual aids to help convey information.</p>   | 5   |
| <p><b>OVERALL REPORT QUALITY RATING</b></p>  |   | 4.6 |

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1. The overall quality of the review report is calculated by taking the mean score of all rated quality criteria.