Final evaluation

National program for the environmentally sound management of chemical substances in their life cycle.

Country: Ecuador

Implementing agency: United Nations Development Program

Implementing partners: Ministry of Environment, Water and Ecological Transition and Ministry of Energy and Mines of Ecuador.

Financing: Global Environment Facility

UNDP ID No.: 5706 GEF ID No.: 9203

Consultant in charge of the evaluation German Luebert

May 27, 2024

Project Summary Sheet

Project Name: National program for the environmentally sound management of chemical substances in their life cycle.

Country: Ecuador

Region: Latin America

Financing: Global Environment Facility (GEF).

Implementing agency: United Nations Development Program (UNDP).

GEF ID: 9203
UNDP-GEF PIMS ID number: 5706
Atlas Project ID/Award ID number: 00100779
Atlas Output ID/Project ID number: 00103569

Focal Area GEF-6: Chemicals and Wastes

GEF Focal Area Objectives: CW-1: To develop the conditions, tools and the environment conducive to the sound management of chemicals and harmful wastes; CW-2: Reduce the prevalence of harmful chemicals and wastes and support the implementation of clean alternative technologies/substances.

Gender marker: GEN 1

Executing agency: Ministry of Environment, Water and Ecological Transition of Ecuador.
Co-executing agency: Ministry of Energy and Mines of Ecuador.

Prodoc signature date: March 22, 2018.
Formal project start date: March 22, 2018.
Start date of workshop: November 30, 2018
Expected operational close date of the project: July 21, 2024 (includes 16-month extension)

Budget: USD 49,061,428
GEF contribution: USD 8,490,000
Planned cofinancing: USD 40,571,428

FIP Approval Date: July 2015
CEO endorsement date: July 2015
Mid-term review completion date: January 2021
Date of the final evaluation: May 2024

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Ecology and Energy and Mines of Ecuador**.**

We also acknowledge the participation of other State institutions at the national and local levels that participated with the presence of officials in the different activities of the evaluation process and that were available for consultation.

The evaluation extends its gratitude to the United Nations Development Program, in particular to its Resident Representative Matilde Mordt and the Program Officer for the environment and energy area, Mario Rodas.

Finally, a sincere thank you to Mr. Julio Macias; his support was fundamental to carry out the field visits and to materialize the logistics of the trips to the different territories of intervention of the Project.

Index

Acronyms and abbreviations

ABG	Agency for Regulation and Control of Biosafety and Quarantine for Galapagos
AGROCALIDAD	Agency for Phytosanitary and Zoosanitary Regulation and Control
COP	Persistent Organic Pollutant
COP - NI	Unintentional Persistent Organic Pollutant
GEF	Global Environment Facility
GAD	Decentralized Autonomous Government
GCV	LifeCycle Management
GEF	Global Environment Facility (Global Environment Facility)
GRQ	Sound Management of Chemical Substances
Hg	Mercury
IESS	Ecuadorian Institute of Social Security
INAMHI	National Institute of Meteorology and Hydrology (Instituto Nacional de Meteorología e Hidrología)
INNOVAGRO	Ecuadorian Chamber of Innovation and Agricultural Technology Industry
M&E	Monitoring and Evaluation
MAATE	Ministry of Environment, Water and Ecological Transition
MAG	Ministry of Agriculture and Livestock
MAPE	Artisanal and Small-scale Mining
MPA	Best Environmental Practices
MTD	Best Available Techniques
ODS	Sustainable Development Goals
PIR	GEF Project Implementation Report (GEF Project Implementation Report)
UNDP	United Nations Development Programme
PRODOC	Project Document
RMT	Mid-Term Review
SME	Monitoring and Evaluation System
TdC	Theory of Change
UNDAF	United Nations System Cooperation Framework, for its acronym in English

Executive summary

The executive summary of the final evaluation of the "National Program for the Environmentally Sound Management of Chemicals in their Life Cycle" - hereinafter referred to as the "National Program for the Environmentally Sound Management of Chemicals in their Life Cycle" - hereinafter referred to as the "Program" or the "Project"- indistinctly.

The Program is an initiative financed by the Global Environment Facility (GEF), implemented by the United Nations Development Program (UNDP) and executed by the Ministry of Environment, Water and Ecological Transition (MAATE) in partnership with the Ministry of Energy and Mines (MEM) of Ecuador.

The total budget allocated at the time of formulation was USD 49,061,428, of which USD 8,490,000 was contributed by the GEF and USD 40,571,428 corresponds to cofinancing from various national institutions.

The Program formally started in March 2018 and is scheduled to culminate its execution, considering a 16-month extension, in July 2024.

Project summary table.

Project Title: National program for the environmentally sound management of chemicals in their life cycle. **GEF Identifier No.:** 9203. **UNDP Identifier No (PIMS):** 5706.
Duration of the Program: 76 months (including a 16-month extension) ● Formal start date: March 2018 ● Expected completion date: July 2024
Funder: GEF **Implementing agency:** UNDP **Executing agencies**: MAATE and MEM
Total Budget: USD 49,061,428 **Planned national contribution**: USD 40,571,428 **GEF contribution:** USD 8.490.000

The purpose of the evaluation was to make an independent assessment of the relevance of the design and actions implemented by the Program, its effectiveness in achieving results and objectives, the efficiency in the use of resources, the incorporation of cross-cutting perspectives, the likelihood that the effects obtained will be sustained once funding ceases (sustainability) and the incidence of other factors that may have affected the Program's performance. The above, with the purpose of extracting lessons learned and recommendations aimed at improving the potential impact of this and, eventually, future initiatives.

Main findings by dimensions and evaluation criteria

Dimension: Project Design

Design procedures and components. The evaluation found that the elements and procedures required by the GEF and UNDP were incorporated during the formulation stage and in the design of the project. These include: a gender analysis and strategy; stakeholder participation; identification of environmental and social risks for which safeguards were designed; the development of a monitoring and evaluation plan; appropriate incorporation of lessons learned from other GEF initiatives; and the development of a project design and implementation plan.

developed a theory of change, among other elements that contributed to a structured design according to the institutional guidelines of the implementing agency and the donor.

Logical framework. Regarding the quality of the results matrix, the evaluation ratifies what was observed by the mid-term review; weaknesses in its horizontal logic and inconsistencies in its vertical logic are evident.

Dimension: Project Execution

Adaptive management. The Project was responsive to the design problems of the results matrix, adapted its intervention to contextual conditions such as the COVID-19 health emergency, and was diligent in adopting the recommendations made by RMT.

Stakeholder participation. The RMT stated that institutional stakeholders demanded more and better participation in decision-making. This perception has changed; the statements from these stakeholders, while confirming what was observed at mid-term, state that communication and involvement improved during the second half of the Project's execution.

*Cofinancing***.** Total documented co-financing exceeded the planned amount by 54%. As of April 2024, the date of the last record, 62,329,175 USD of cofinancing has materialized, exceeding the committed contribution (40,571,428 USD) by 54%. The positive balance is due to the leveraging of additional resources to those originally planned, highlighting the contribution made by companies and financial institutions that joined the co-financing once the Project started.

Monitoring and Evaluation. The Project designed and implemented a Monitoring and Evaluation System (SME) tailored to the initiative's monitoring and accountability needs. The quality of the EMS facilitated systematic monitoring of the Project's technical and financial execution, knowledge management and incorporation of lessons learned. Likewise, the storage and availability of verification sources simplified consultation and the overall development of this evaluation.

*Implementation and execution functions***.** UNDP has complied with the basic functions and quality standards described by the GEF. As the implementing agency, it has satisfactorily accompanied the identification, preparation of the idea, formulation and implementation of the Project and coordinated both the RMT and the present evaluation.

Execution functions are also satisfactory. The day-to-day management of project activities has been carried out in accordance with the agreements established with the partners. Accountability, use of funds, procurement and contracting have generally been carried out on time and with due probity and transparency.

Environmental and Social Safeguards. Consistent with the low-risk categorization (maintained at the time of appraisal) and in line with the updated GEF safeguards policy, the Project has considered the views of potentially affected people and has taken precautions to avoid harming them as a result of its implementation.

Dimension: Project Results

Strategic relevance. The design and execution of the Project responded satisfactorily to the global priorities and strategic guidelines of the national and international institutions involved.

In this sense, the actions implemented and the results were consistent with the strategies proposed by GEF-6. Likewise, there is evidence of alignment with national efforts to eliminate the use of POPs and reduce mercury stocks and emissions to the environment. In addition, the strategy is considered relevant for the development of the UNDP strategy in the country and responds to five of the seventeen Sustainable Development Goals (SDGs) of the 2030 agenda (SDGs 3, 6, 12, 13 and 15).

Coherence. The project articulated actions with more than twenty public, private and civil society institutions. These alliances made possible the development of products and the achievement of the planned goals. For the evaluation, the high coherence of the intervention is undoubtedly a success factor and a contribution to the effectiveness, efficiency and sustainability of the Project.

Effectiveness. The project has been effective in achieving its goals. The eleven goals formulated were met; of these, eight exceeded what was planned. The progress shown in the indicators was correlated with the achievement of results and progress towards the direct effect and impact sought by the Project.

As direct results of implementation, capacities for the sound management of chemicals have been strengthened; the Project was also effective in contributing to eliminating stockpiles and reducing the use of POPs in Ecuador; additionally, the products produced by the Project resulted in the reduction and elimination of mercury in priority sectors other than mining; and access to financing, confidence and sales volumes of artisanal miners to processing plants that use mercury-free technologies were improved.

For the evaluation, the results achieved are a step forward in the challenge of protecting human health and the environment from the impact of harmful chemicals, in particular Persistent Organic Pollutants and mercury (impact sought by the project).

Efficiency. The financial resources provided by the GEF were well used and sufficient to form a quality team, execute the planned activities and achieve the outputs committed in the Prodoc.

Gender. The project's actions made it possible to raise the visibility of women's groups, sensitize and train different actors and mainstream the approach in some of the public policy instruments developed.

Additionality. Project initiatives generated incremental environmental benefits. They added technological innovation and knowledge to the institutions and territories where they were deployed and supported the State in establishing financing and public policy instruments for sustainable development.

Catalytic effect. The Project has experiences that have the potential for expansion and replication. These include: a. The commercialization strategy for ASM; b. The coordinated territorial work carried out in Galapagos to reduce POPs and POPs-NI; c. The financial instrument for small-scale mining, which already has a national scope; and d. The joint work with the IESS to eliminate the use of the POPs and POPs-NI. The joint work with the IESS to eliminate and replace mercury-containing equipment.

Sustainability. Institutional and economic sustainability is not assured. Multi-stakeholder agreements with private participation and continued external cooperation projects partially mitigate the institutional, financial and political risks that jeopardize the likelihood that the benefits achieved and the processes promoted will be maintained once funding ceases.

Lessons learned

The evaluation was able to draw the following lessons learned:

- **Lesson learned 1**. The possibilities for change are greater if communication and promotion of regulations and of the risks associated with the use and/or contact with chemical substances, is accompanied by incentives and by offering socially, economically and culturally viable alternatives.
- **Lesson learned 2.** It is important to include among the sources of verification of environmental indicators, measuring instruments that provide reliable information. and comparable both territorially and temporally.
- **Lesson learned 3.** The participation and adherence to best practice integration processes by companies and other private organizations is explained by The project showed them how to do it, facilitated the necessary inter-institutional coordination, accompanied them along the way, and because they saw in these changes an opportunity to increase the prestige of their brands.
- **Lesson learned 4.** The adoption and maintenance of good practices is contingent upon a positive economic balance for the implementer.
- **Lesson learned 5.** Including the private sector in medium-term cooperation agreements is a good way to mitigate institutional and political risks and improve the initiative's chances of sustainability.
- **Lesson learned 6.** Efforts to formalize and insert groups living in poverty and vulnerability and with weak levels of organization -as in the case of the jancheras- into productive chains require multidisciplinary interventions, The program's objectives are long-term, in-depth, and oriented, at least initially, to the development of individual capabilities and organizational strengthening.
- **Lesson learned 7.** In fragile and changing environments, territorial and/or institutionally limited interventions with clear, shared and short term objectives, and with a clear and shared vision for the future. are more likely to be successful than more far-reaching strategies.
- **Lesson learned 8.** Understanding the initiatives implemented by the Project as pilots and not only as an end in itself is an appropriate approach if the aim is to scaling expressed in the construction of replications and evidence-based public policies.
- **Lesson learned 9.** Conceiving Prodoc as an instrument with margins of flexibility made it possible to adapt the intervention -products and territories- to a given context. institutional and political instability.

Recommendations

No	Recommendation	Responsible	Period of application
1	In order to improve the quality of project results matrices, it is recommended that UNDP Ecuador strengthen verification and assurance procedures. of the quality of the logical frameworks that are designed.	UNDP	June 2024 onwards
2	In order to have evidence of the impacts on the reduction in the use of mercury that the credit instrument and the mineral sale strategy will have in the medium term, it is recommended that MAATE, MEM and UNDP carry out, within the framework of the execution of future projects, a study that provides counterfactual information on the environmental and economic effects that these instruments are generating.	MAATE, MEM and UNDP	July 2024 to July 2028
3	In order to promote the multiplication and sustainability of the results, it is recommended to generate a space for discussion aimed at seeking alternatives for the integration of the Program's outstanding experiences in the continuity projects to be implemented by UNDP (Gold+ and FARM). *Suggestion*. Conduct an experience sharing and integration workshop involving teams and partners. executors of the three projects (PNGQ, FARM and Gold+).	UNDP	July 2024
4	For future initiatives that contemplate direct work with grassroots groups and/or territorial actors, it would be favorable to consider the formation of multidisciplinary teams, preferably made up of thematic experts, but with the support of specialized development profiles. community.	MAATE, MEM and UNDP	July 2024

Project appraisal table

Monitoring and evaluation (M&E)	Rating	Brief comments
Start-up M&E design	S	The Project designed and implemented a Monitoring and Evaluation System (SME) tailored to the initiative's monitoring and accountability needs. It maintained an orderly repository that allows easy access to the sources of verification associated with the indicators and the developed products.
Implementation of the M&E Plan	S	
Overall M&E quality	**S**	
Implementation and execution	**Rating**	**Brief comments**
Quality of UNDP implementation/supplementation	S	As the implementing agency, UNDP has successfully accompanied the identification, preparation of the idea, formulation and implementation of the Project and coordinated both the RMT as this evaluation.
Quality of implementation of the implementation partner	S	The Project's day-to-day activities have been managed in accordance with the agreements established with the partners. Accountability, use of funds, procurement and contracting have generally been carried out in a timely manner and with the due probity and transparency
Overall quality of implementation/execution	**S**	
Evaluation of results	**Rating**	**Brief comments**
Strategic relevance	AS	The design and implementation of the Project responded to the global and local priorities. the strategic guidelines of UNDP, the GEF, the 2030 Agenda and the Ecuadorian State.
Effectiveness	S	All of the project's performance indicators are reported as achieved and in some cases far exceeded. Products were developed that made it possible to move forward in overcoming barriers, achieve results and contribute to the desired impact.
- Component 1	S	As a result of Project implementation, individual, institutional and environmental capacities for the Rational Management of Substances of Substances of Very High Concern will be improved. Chemicals has been strengthened.
- Component 2	S	The Project proposal was effective in its contribution to eliminating stockpiles and reducing the use of POPs.
- Component 3	S	The strategies developed and products produced by the Project resulted in the reduction and elimination of mercury in priority sectors other than mining. As a result of the implementation of the Project, access to financing has improved, confidence has increased, and sales volumes of artisanal miners to beneficiation plants that use technologies have increased. mercury-free.
- Component 4	S	Awareness has been raised and the importance of the following has been placed on the public agenda improve the management of chemicals in Ecuador.
Efficiency	S	The financial resources provided by the GEF were sufficient to form a quality team, execute the planned activities and achieve the outputs committed in the Prodoc. The project suffered justified delays in its implementation. The requested extension was adjusted to the time required to achieve to execute technically and financially 100% of the plan
Assessment of overall project results	**S**	
Sustainability	**Rating**	**Brief comments**

Financial resources	MY	While at the sectoral and technical level there is a willingness and commitment to sustain the initiative once funding ceases, at the central level there is a lack of
Sociopolitics	MY	priorities are different. The crisis facing the country has led to a focus on increasing public spending on security. If this situation continues, MAATE's human and material resources, which are already insufficient to sustain the Project's strategy, will at best be maintained during this period. In addition to institutional and financial risks, there are political risks. In 2025, there will again be general elections in the country, and, as is only natural, there are likely to be updates to the priorities of the Ecuadorian State.
Institutional framework and governance	MP	
Environmental	P	There are no risks that could jeopardize the environmental sustainability of the Project.
Overall probability of sustainability	**MY**	

1. Introduction

The "National Program for the Environmentally Sound Management of Chemicals in their Life Cycle" -hereinafter the "Program" or the "Project"- is an initiative financed by the Global Environment Facility (GEF), implemented by the United Nations Development Program (UNDP) and executed by the Ministry of Environment, Water and Ecological Transition (MAATE) in partnership with the Ministry of Energy and Mines (MEM) of Ecuador (Box 1).

The total budget allocated at the time of formulation was USD 49,061,428, of which USD 8,490,000 was contributed by the GEF and USD 40,571,428 corresponds to cofinancing from various national institutions.

The Program formally started in March 2018 and is scheduled to culminate its execution, considering a 16-month extension, in July 2024.

Table 1. General information about the program.

Project Title: National program for the environmentally sound management of chemicals in their life cycle. **GEF ID No.:** 9203. **UNDP Identifier No (PIMS):** 5706.
Duration of the Program: 76 months (including a 16-month extension) ● Formal start date: March 2018 ● Expected completion date: July 2024
Funder: GEF **Implementing agency:** UNDP **Executing agencies**: MAATE and MEM
Total Budget: USD 49,061,428 **Planned national contribution**: USD 40,571,428 **GEF contribution:** USD 8.490.000

In accordance with GEF and UNDP policies and procedures, a final evaluation must be carried out at the end of the project cycle. This evaluation report was prepared in the context of this exercise.

1.1 Objective of the final evaluation

The purpose of the evaluation was to make an independent assessment of the relevance of the design and actions implemented by the Program, its effectiveness in achieving results and objectives, the efficiency in the use of resources, the incorporation of cross-cutting perspectives, the likelihood that the effects obtained will be sustained once funding ceases (sustainability) and the incidence of other factors that may have affected the Program's performance. The above, with the purpose of extracting lessons learned and recommendations aimed at improving the potential impact of this and, eventually, future initiatives.

In addition, the evaluation is part of the accountability exercise to the donor and project partners (GEF, government institutions and UNDP) and to the entities that are actors and counterparts in the execution of the project.

1.2 Scopes

The evaluation had a temporal scope that covered the implementation period of the Program: from its start date, i.e. from March 2018, until the time of the evaluation in April 2024.

The geographic scope coincided with the intervention territory and the interaction between the different scales. Institutions and actions of national and local scope were considered, with emphasis on the provinces of Pichincha (Quito), El Oro, Azuay, Guayas and Galapagos.

1.3 Methodology

In order to achieve the objectives and respond to the information needs, a participatory and collaborative methodological approach to evaluation was used, based on the theory of change, use-oriented and qualitative in nature.

1.3.1 Informational needs of the evaluation.

The information needs were determined by the evaluation criteria, questions and sub-questions described in the terms of reference, plus additional ones that have been proposed by the evaluation and that are part of the GEF and UNDP requirements (table 2). Each of these elements was analyzed considering the Program's design, execution/implementation and results dimensions.

Table 2. Evaluation criteria and questions

Quality of project design
Question 1. Is the Program's design and logical framework of quality and does it follow the structure and components required by UNDP and GEF?
Relevance/Relevance
Question 2 How does the project relate to the main objectives of the GEF focal area and to environment and development priorities at local, regional and national levels?
Consistency
Question 3. How well is the intervention harmonized with other interventions implemented by the implementing agency and other institutions?
Efficiency
Question 4 To what extent have the expected results of the project been achieved?
Progress towards impact
Question 5 To what extent did Project implementation contribute to protecting human health and the environment from the impact of harmful chemicals, in particular Persistent Organic Pollutants (POPs) and mercury?
Efficiency
Question 6 Was the project implemented efficiently, in accordance with international and national norms and standards?

Sustainability

Question 7 Are there economic, institutional, socio-political and/or environmental risks that could threaten the project's long-term results?

Genre

Question 8 How did the project contribute to gender equality and women's empowerment?

Safeguards

Question 8 Have the necessary safeguards been taken during the design and implementation of the Program?

Implementation and execution functions

Question 9 To what extent have UNDP, MAATE and MEM exercised their roles and assumed their responsibilities as implementing agency and executing entities respectively?

Stakeholder participation

Question 10 Have other stakeholders - such as civil society, indigenous people or the private sector - been involved in the design or implementation of the project; how is the level and quality of participation and involvement of partners, key counterparts and other stakeholders assessed?

Monitoring and evaluation (M&E)

Question 11 Has the M&E plan and its implementation been efficient and contributed to the management and accountability of the Program; has the information from the M&E system been adequately used to make timely decisions and promote learning during the implementation of the Project?

1.3.2 Selection of key players

The key agents chosen were selected in conjunction with the Program team through a purposive sampling. The following general criteria were applied in order to create the sample:

- Level of information management.
- Level of responsibility.
- Level of intensity of linkage with the Program.

Each criterion was assigned a rating of *high, medium or low*. A key agent was considered eligible only if it achieved at least one of the *high* scores, while ensuring that the sample as a whole met at least the following attributes:

- *Territorial: to* ensure the representation of the intervention territories.
- *Types of stakeholders*: include people from the Program team, UNDP, government institutions, partners and representatives of beneficiary organizations.
- *Representation of women*: include women in the same proportion as their participation in the Program.

As a result of this exercise, 38 people were selected and consulted during the fieldwork (see Appendix 1. List of key stakeholders consulted).

1.3.3 Data collection techniques

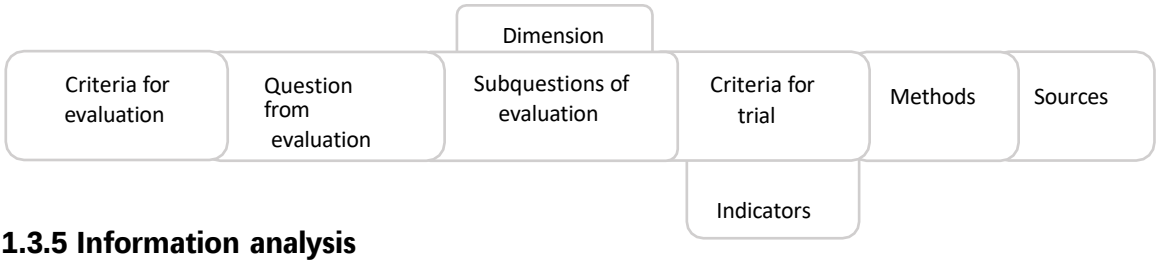
The techniques listed below were applied differentially depending on the key agent and the type of information he/she handled. The instruments were designed according to the evaluation questions and sub-questions. The following is a description of the data collection techniques implemented:

- *Documentary analysis:* we reviewed the Prodoc, the biannual and annual progress reports and technical reports generated; training materials, studies carried out, consulting reports, legislation and national public policy instruments; key press releases, publications and available communication products. In addition to strategic and technical documents of the GEF and UNDP, protocols, agreements, treaties and conventions signed by Ecuador, among other documents.
- *In-depth interviews: in* order to obtain in-depth information on people's impressions or experiences, semi-structured interviews were conducted with the different key agents selected (see Appendix 3. Interview protocol).
- *Focus groups:* Two focus groups were conducted. One with jancheras in the Camilo Ponce Enríquez canton and the other with beneficiaries of a goldsmith workshop in the Portovelo canton.
- *In situ observation:* technique used during the visits to the intervention territories. The objective was to obtain information on how the Program worked, activities implemented, processes, facilities and equipment provided, discussions, social interactions and observable results as they can be seen directly in the field.

1.3.4 Evaluation matrix

The evaluation matrix has been understood as a methodological synthesis that integrates the information needs and guides the collection and analysis of information. In its construction, the 11 questions presented above were considered, to which were added: associated evaluative sub-questions; dimensions; judgment criteria and indicators; collection methods; and the primary and secondary sources to be consulted (see Appendix 4. Evaluation matrix) The matrix was structured as follows:

Table 3. Structure of the evaluation matrix



1.3.5 Information analysis

The background information collected from the different techniques and sources was captured as field notes. This information was then refined by considering analytical subcategories constructed on the basis of the indicators and evaluative judgment criteria set out in the evaluation matrix.

In order to identify trends in the background information obtained from different sources and data collection tools and to obtain sufficiently contrasted findings, a triangulation of methodologies and data sources was carried out.

In order to investigate planned and unplanned effects, the effectiveness assessment was nourished, in addition to the achievement of indicators and the development of products, by an analysis of the Program's contribution to overcoming the barriers identified in the theory of change.

The preliminary findings and conclusions obtained were discussed with the interested parties, who were able to express their points of view, make suggestions for adjustments and recommend the inclusion of observations.

1.4 Ethics of evaluation.

Ensured that the ethical norms and standards of the United Nations Evaluation Group (UNEG) and the guidelines for the final evaluation of GEF projects implemented by UNDP were followed, adopting a consultative, transparent and independent approach with the Program's internal and external stakeholders.

1.5 Limitations of the evaluation

During the project implementation period, there were two changes in the administration of the Ecuadorian State. Given this situation, some institutional key informants no longer work for the State, which prevented the evaluation from interviewing them.

The time and financial framework in which the evaluation was carried out and the conditions of insecurity in some of the territories limited the possibilities of obtaining a sample that would ensure total representativeness of the territories and beneficiaries.

In order to mitigate these limitations, priority was given to key agents who had background information on most of the components and the history of the project, in addition to using secondary information to fill any gaps in information.

1.6 Structure of the final evaluation report

The report has been structured according to the guide provided by UNDP Ecuador. This introduction is followed by a brief description of the project. The evaluation results are presented in the third section. The latter are developed in three subsections: design, implementation and results. Conclusions, lessons learned and recommendations are included in sections four, five and six, respectively.

2. Project Description

2.1. Project Framework

Persistent Organic Pollutants (POPs) and mercury (Hg) are chemical substances that do not degrade easily in the environment and bioaccumulate in the food chain.

Due to their detrimental impact on human health, they are considered a global threat, affecting mostly vulnerable communities, as they face a high risk of exposure due to their occupations, living conditions and dependence on contaminated food and water.

In Ecuador, the use of pesticides is the main source of POPs release into the environment. Inadequate storage of empty containers and obsolete products generates highly hazardous contaminated sites and a high risk for operators.

On the other hand, the use of mercury, despite being prohibited in the country, is found mainly in artisanal and small-scale gold mining, lighting fixtures and in medical items such as thermometers and pressure gauges (mostly imported).

In response to the threats to human health and the environment caused by the presence of these substances, the Ecuadorian government has developed regulations and ratified the Stockholm Convention on Persistent Organic Pollutants and the Minamata Convention on mercury, committing itself to the international community to reduce and eliminate the use of these substances in the country.

At the time of formulating the Program, it was identified that in order to fully comply with the regulations and satisfactorily respond to the commitments acquired with the accession to the aforementioned conventions, it was necessary to increase national capacity and ensure that State institutions have the conditions to develop, improve and implement policies and regulations for the life-cycle management of chemicals and wastes, together with promoting the use of safer products through incentives and new regulatory measures.

According to the project document (Prodoc), the main barriers that were acting as obstacles to progress in this direction were the following:

- Limited institutional coordination and capacity to support POPs, Hg and waste management.
- Weak regulatory/legal framework to support sound management of POPs and mercury.
- Limited capacity and knowledge for the disposal of pesticides, wastes and residues in the use and release of POPs.
- Limited capacity for coordinated reduction in the use and release of mercury in priority sectors.
- Economic and capacity barriers that prevent the adoption of mercury-free or mercury-reducing practices in ASM.
- Insufficient awareness in VCM of chemicals, POPs, mercury and wastes.

2.2. Intervention logic

The program was formulated with the purpose of overcoming the barriers mentioned above. Thus, an intervention strategy was designed with the objective of "*Protecting human health and the environment from the impact of harmful chemicals, particularly Persistent Organic Pollutants (POPs) and mercury (Hg*). Purpose to be achieved through the implementation of four outcomes. Namely:

- Strengthen institutional capacity and the legal and regulatory framework for the Sound Management of Chemicals (SMC) based on a Life Cycle Approach.
- *Outcome 2.* Elimination of POPs stockpiles and reduction of the use and release of initial and newly listed POPs.
- Implementation of measures for the reduction and elimination of Hg from priority sectors.
- *Outcome 4.* Raise awareness, ensure follow-up and disseminate project results and experiences.

2.3. Project Theory of Change

For a better understanding of the Program's logic, a theory of change was developed in its design phase. This identifies barriers, assumptions, products, results and objectives. These components are understood as milestones and preconditions that must be met in order to advance along the desired path of change in the short, medium and long term. Appendix 8 presents the outline of the theory of change developed by the Program and in section 3.3.4 Progress towards impact, the proposed reconstruction based on the findings identified by the evaluation.

2.4. Execution period

In order to deploy the intervention logic and advance on the path of change, the Project started its activities in March 2008 and is scheduled to culminate in July 2024. Seventy months of total duration, including a 16-month extension, which was requested due to delays caused by circumstances beyond the project's control, such as the COVID-19 pandemic and unplanned changes in government.

3. Evaluation results

3.1 Project Design

3.1.1 Design procedures and components

> **Finding 1**
> **The elements and procedures required by the GEF were incorporated during the formulation stage and in the design of the project.**

The GEF in its document "Project and Program Cycle Policy Guidelines" describes a series of procedures for the preparation of projects and requires the insertion of mandatory sections in the Prodoc; the inclusion of the most relevant sections during the formulation of the evaluated Program are reviewed below.

The project was designed with the participation of stakeholders (ministries, foundations, UNDP and others), and some of the technicians interviewed who have remained in the institutions indicate that their points of view were included and that the interests and problems that the Ecuadorian government had at that time were reflected in the Prodoc.

In line with GEF guidelines, a gender analysis was conducted and a preliminary strategy formulated. These instruments are general, do not clearly identify gender gaps and omit the development of a specific action plan.

For the evaluation and the key actors interviewed, the gender marker assigned to the project (GEN 1) would explain and to some extent justify the design weaknesses mentioned. Weaknesses that, by the way, were partially corrected after the mid-term review (see section 3.3.6. Gender for more details).

In line with UNDP frameworks and requirements and using institutional tools, environmental and social risks were identified for which safeguards were designed and found to be effective. For political, regulatory and financial risks, mitigation measures were formulated.

In addition, a monitoring and evaluation plan was developed and successfully implemented and enriched during the intervention cycle (see section 3.2.4 Monitoring and evaluation).

The Project adequately incorporated lessons learned from other GEF initiatives and replicable strategies, including lessons learned from financial mechanisms in protected areas designed in previous projects.

Although the sustainability of the Project is raised as a concern in the design, the development of a plan to ensure it was not contemplated. This absence was corrected based on a recommendation made by the Mid-Term Review (MTR).

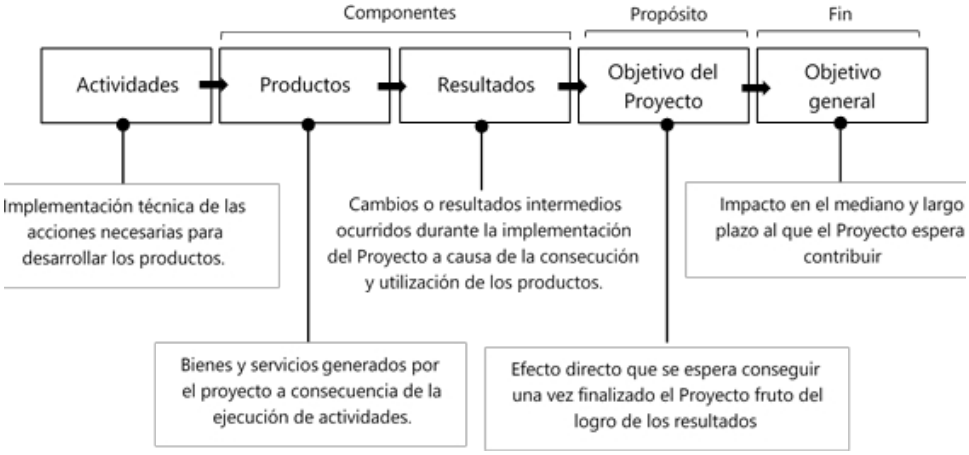
As an analytical tool for alternative solutions to the problems identified, a theory of change was designed to provide guidance on the path to follow. The results matrix that underlies this tool has shortcomings in both its horizontal and vertical logic. Aspects that are discussed in the following finding (section 3.1.2. Results matrix).

3.1.2 Results matrix

Finding 2
The results matrix presents weaknesses in its horizontal logic and inconsistencies in its vertical logic.

The methodology for the construction of logical framework matrices indicates that four levels of hierarchies should be considered to create a results chain (vertical logic), namely: activities, components, purpose and end (Economic Commission for Latin America and the Caribbean [ECLAC], 2005) (Table 4). Likewise, each of these levels should contribute to the achievement of the next level and have a narrative summary in line with its position (United States Agency for International Development [USAID], 2020; World Bank, 2012; Sansom, 2011; ECLAC, 2005).

Table 4. Structure of the causal logic.



Source: Own elaboration

The horizontal logic should be composed of at least the following components: indicators and targets, sources of verification and assumptions (ECLAC, 2005).
Completing a matrix with the following structure:

Table 5. Basic structure of a results matrix

	Resumen narrativo	Indicadores y metas	Fuentes de verificación	Hipótesis de partida
Fin				
Propósito				
Componentes				
Actividades				

Taking as an analytical framework what was previously stated (based on the specialized literature consulted), the evaluation, ratifying what was stated in the Mid-Term Review (MTR), observes weaknesses in the preparation of the results matrix. The main deficits identified are indicated below:

- Some of the narrative statements do not fit their level of hierarchy.
- The specific objective is integrated with the impact objective (purpose and goal) in the same statement.
- What could be interpreted as outputs are placed in the indicators and targets column of the matrix.
- The incorporation of sources of verification is omitted, conditioning the quality of the measurement of some indicators, especially indicator 1 of result 3 (see finding 11 of section 3.3.3. Effectiveness).

Although it is important to address these shortcomings in the formulation of future matrices, for the evaluation they did not significantly condition the Project's performance. They were partly remedied by the development of a theory of change, a comprehensive interpretation of the underlying intervention strategy and a good adaptive capacity of the Project, expressed in the integration of the recommendations made by RMT in this area (see section 3.2.1 Adaptive management).

3.2 Project execution

3.2.1 Adaptive management

> **Finding 3**
> **The project was responsive to the design problems, the contextual constraints and the recommendations made by RMT.**

The Project was exposed to a complex health context and an unstable political scenario. Due to the COVID-19 pandemic, mobility and assembly restrictions were established and State resources were redirected towards emergency response. In addition, during the period of Project implementation, there have been three different governments as a result of the early termination of one administration.

The response to these imponderables was adjusted to the possibilities. For the first, planned field actions were reduced and/or eliminated and priority was given to office work for the development of technical inputs; for the other, the political situation, a procedure was established to quickly approach the new authorities and officials to update and confirm the State's commitments to the Project and, as a mitigation measure for this risk, it was decided to deepen the work with public servants who perform technical tasks in the institutions and who tend to have stability in their positions.

Despite the efforts made, circumstances led to a 38% execution gap between what was originally budgeted for the years 2020 and 2021 and what was executed in the same period (see section 3.3.5 efficiency).

In order to regularize under-execution, address design deficiencies, improve sustainability possibilities and optimize overall project performance, the RMT undertook a series of

recommendations -among them requesting a 16-month extension (see more details in finding 18 of section 3.3.5 efficiency) and developing a matrix with supporting indicators-, most of which were accepted (totally or partially) by the project, approved by the steering committee and incorporated during the second half of implementation.

3.2.2 Stakeholder participation

Finding 4
The perception of stakeholder participation and access to information improved during project implementation.

The RMT stated that institutional stakeholders demanded more and better participation in decision making. This perception has changed. The statements from these stakeholders, while confirming what was observed at mid-term, state that communication and involvement has improved.

Officials of the GADs, civil society organizations, companies and ministries are in agreement with the support and information provided by the Project.

The evaluation confirms this perception. Stakeholders were informed of the activities carried out, and there was space in the steering committee for consultation, the expression of points of view and joint decision-making. In addition, through the various communication products produced, non-confidential information was made available to both the institutions and the general public. Thus complying with the minimum procedures and standards recommended by the GEF in its Stakeholder Engagement Policy.

3.2.3 Co-financing

Finding 5
Total documented cofinancing was 54% higher than planned.

As of April 2024, date of the last record, 62,329,175 USD of co-financing has materialized, exceeding by 54% the committed contribution (40,571,428 USD). The positive balance is due to the leveraging of additional resources to those originally planned, highlighting the contribution made by companies and financial institutions that joined the co-financing once the Project started (see Appendix 5. Co-financing table).

The evaluation highlights that UNDP as the implementing agency, in line with the GEF co-financing guidelines and co-financing policy, has provided information on the amounts, sources and types of co-financing and investment mobilized and that it has appropriately documented the contributions made.

Co-financing is a reflection of the complementary relationships established and discussed in the coherence section and an essential contribution to the effectiveness of the project.

3.2.4 Monitoring and evaluation

Finding 6
The Project designed and implemented a Monitoring and Evaluation System (SME) tailored to the initiative's monitoring and accountability needs.

As shown in the table below, the Project designed and implemented an EMS that integrates the essential components that these systems should include.

Table 6. Basic components of an EMS and the form adopted by the Project

Components	Project SME
Management structure	Resources have been allocated for accountability, procedures are in place, and there is a defined chain of command. Responsibility for the EMS rests with a person hired to fulfill this specific role and who has the knowledge and skills to perform this function.
M&E planning	Project monitoring is duly planned. Mid-term and final evaluations, annual reports to the donor and semi-annual reports to the implementing agency were considered.
Coordination instances	The project team meets periodically to review progress and schedule activities in the short term.
Planning instruments	The project team has two planning tools: the results matrix and the POAs.
Accountability	The project reported annually to the donor and semi-annually to the implementing agency. The reports met good quality standards, were timely and allowed for good monitoring of technical and financial progress, as well as of risks and potential risks. problems presented in each of the periods considered.
Virtual space for storage and access to information	The information generated by the Project is stored in a virtual platform (drive) designed especially for the initiative. Maintaining an orderly repository allowed for easy access to the sources of information. verification associated with the indicators and products developed.

The quality of the EMS facilitated systematic monitoring of the technical (follow-up of products and indicators) and financial execution of the Project, knowledge management and incorporation of lessons learned. Likewise, the storage and availability of verification sources simplified the consultation and general development of this evaluation.

The assessment of the evaluation for monitoring and evaluation of the Project is satisfactory (see Appendix 6. Evaluation assessment table).

3.2.5 Implementation and execution functions

Finding 7
UNDP has satisfactorily fulfilled its functions as implementing agency. The technical and financial management and execution of the project is also satisfactory.

UNDP has complied with the core functions and quality standards required and described by the GEF in its "Project Cycle Policy Guidelines"; "GEF Minimum Fiduciary Standards" and in the documents from the 39th GEF Council meeting.

As the implementing agency, it has satisfactorily accompanied the identification, preparation of the idea, formulation and implementation of the Project and coordinated both the RMT and the present evaluation.

Improving the mechanisms to ensure the quality of the design of the results matrices is the main challenge identified for future formulations.

Execution functions are also satisfactory. The day-to-day management of project activities has been carried out in accordance with the agreements established with the partners. Accountability, use of funds, procurement and contracting have generally been carried out on time and with due probity and transparency.

3.2.6 Environmental and social safeguards.

> **Finding 8**
> **In accordance with its risk categorization and GEF guidelines, the Project has taken the necessary measures to avoid generating harmful effects on the habitats where it intervened and on the people who participated.**

Consistent with the low-risk categorization (which remains in place at the time of appraisal) and in line with the updated GEF safeguards policy, the Project has considered the views of potentially affected people and has taken precautions to avoid harming them as a result of its implementation.

The participating institutions have the capacities and procedures to ensure that their execution does not cause harmful effects on the habitats where they intervene and have avoided contravening applicable international environmental treaties. On the contrary, the activities are aimed at strengthening the implementation of the Minamata and Stockholm Conventions ratified by Ecuador.

3.3 Project Results

3.3.1 Strategic relevance

Finding 9

The design and execution of the Project responded to the global priorities and strategic guidelines of the national and international institutions involved.

The Minamata and Stockholm Conventions, both ratified by Ecuador, provide the general framework to which the Project sought to respond. The reduction of anthropogenic mercury emissions and releases and the regulation of the treatment of Persistent Organic Pollutants, in order to protect human health and the environment, are objectives shared by these conventions and the initiative evaluated[1] .

In turn, the actions implemented and the results designed by the Project were in line with the strategies proposed by GEF-6 to address this problem. Objectives 1 and 2 of the GEF Chemicals and Wastes focal area include: "To develop the conditions, tools and enabling environment for the sound management of chemicals and harmful wastes and to reduce the prevalence of harmful chemicals and wastes" and "To support the implementation of technologies and the use of alternative clean substances"; purposes to which the Project has been consistently articulated during its implementation.

The congruence with national efforts to eliminate the use of POPs and reduce mercury stocks and emissions to the environment has been equally robust. Although the legal framework of the Ecuadorian State prohibits the use of these substances[2] , in the opinion of key informants, their effective implementation involves technical, economic, social and political challenges to which the Project provides a timely and relevant response.

With respect to the United Nations System Cooperation Framework (UNDAF), the Project, by emphasizing the promotion of good production practices and capacity building to improve the sustainable management of chemical substances in Ecuador, is responding to strategic priorities 1. "Socio-economic equality and transformation Environmental management and climate action" of the UNDAF 2022 - 2026.

The initiative is also relevant for the development of UNDP's strategy in the country. Among the changes to be promoted that are proposed in the Program Document for Ecuador 2023-2026 are "Productivity, competitiveness and inclusive, sustainable and sustainable livelihoods". and "Environmental management and climate action towards a green transition, inclusive and resilient". The Project, by contemplating the promotion of better productive practices and the strengthening of institutional management capacity, harmoniously links its strategy with the aforementioned UNDP purposes.

[1] In addition to the instruments that were the focus of the Project's response, the initiative was also relevant to the Rotterdam and Basel Conventions, and to a lesser extent to the Escazú Convention.

[2] The use of mercury is prohibited only for the mining sector.

Finally, the evaluation highlights the Project's alignment with five of the seventeen Sustainable Development Goals (SDGs) of the 2030 agenda. Specifically:

- It contributes to SDG 3 (Health and Well-being) because it seeks to reduce mercury emissions and control POPs, which would lead to a cleaner environment and improve the protection of human health from these substances.
- It responds to SDG 6 (Clean Water and Sanitation) as it aims to reduce pollution of water bodies.
- Since it has sought to promote sustainable production practices, proposing safer and more responsible alternatives, it is relevant to SDG 12 (Responsible Production and Consumption),
- It supports SDG 13 (Climate Action) and SDG 15 (Life of Terrestrial Ecosystems), since the implementation of the project will mitigate negative environmental impacts in the intervention territories.

In summary, the design and execution of the project met national needs and priorities, was in line with the international instruments signed by Ecuador, was relevant for the GEF, UNDP and the United Nations System in Ecuador, and contributed to the fulfillment of the global sustainable development agenda.

3.3.2 Consistency

> **Finding 10**
> **The project articulated actions with public, private and civil society institutions. These partnerships enabled the development of products and the achievement of the planned goals.**

Synergies were generated with more than twenty institutions (see Appendix 8. Alliances generated by the Project). Key informants point out that the Project was fundamental in the establishment of articulated actions and that without them it would have been unfeasible to deploy the strategies and achieve some of the results obtained.

Good examples to support this finding are:

- The joint work with the Ecuadorian Social Security Institute (IESS), which made it possible to eliminate waste and replace a large part of the mercury-containing instruments in the hospitals under the administration of the Social Security Institute.
- The partnership with the non-profit organization Innovagro, GADs and Agrocalidad led to a substantial increase in the disposal of obsolete agricultural chemicals and empty containers.
- The agreement established with the Agency for Regulation and Control of Biosafety and Quarantine for Galapagos (ABG), which resulted in the first shipment to the continent and subsequent disposal of agrochemical containers, and the acquisition of a chromatograph to help the province control the presence of chemical contaminants for agricultural use.
- Collaboration with sugar mills, which led to the adoption of best practices and technology aimed at reducing emissions of POPs-NIs into the atmosphere.
- The facilitation of a joint effort between processing plants, miners, laboratories, MAATE and MEM resulted in the design and implementation of a successful commercialization strategy focused on reducing the use of Hg in this sector.

For the evaluation, the high coherence of the intervention, expressed in the materialized collaboration networks, is undoubtedly a success factor and a contribution to the effectiveness, efficiency and sustainability of the Project.

3.3.3 Efficiency

The effectiveness review will be addressed in three parts:

- In the first, the achievement of indicators at the result level will be reviewed;
- in the second, an identification will be made of the contribution of the products obtained to overcoming the barriers that prevent progress toward the impact objective and how these contributions constitute - or not - results that can be attributed to the project;
- the third part, included as a separate section (3.3.4 Progress towards impact), will assess the effects obtained as a consequence of the results obtained, and to what extent these effects mean progress towards the protection of human health and the environment from the impact of harmful chemicals, particularly Persistent Organic Pollutants and mercury (impact objective sought by the Project).

For this analysis, the evaluation will use outputs as the goods and services generated and outcomes as the intermediate changes to which these outputs contributed. Given design weaknesses, in some cases the outputs and outcomes identified will not match the narrative summaries included in the logical framework matrix.

> **Finding 11**
> **The project has been effective in achieving its goals. All outcome indicators are reported as achieved and in some cases far exceeded.**

Compliance with the project's performance indicators was high. The eleven goals formulated were met; of these, eight exceeded what was planned (Table 7).

Table 7. Achievement of outcome indicators reported by the Project.

Indicators (I) of results (R)	Reach o	% of achiev ement
I1.R1 Four (4) financial and capacity development plans developed and implemented and the capacity of 12 private or public entities was increased (...)	4/16+	100
I2.R1 Sixteen (16) policies, regulations and standards to achieve GCV of chemicals reviewed and/or developed.	26	163
I1.R2 120 tons of obsolete POPs and non-POPs pesticides and wastes were eliminated. related.	239.95 tons	200
I2.R2 25 grams TEQ of POP-NIs were reduced.	36 g	144
I3.R2 30 tons releases of new POPs, reduced.	58.03 tons	193
I1.R3 2 tons of mercury use/release reduced from ASM to non-industrial level.	2.08 **ton***	105
	2.08 ton*	
	2.08 ton*	
	2.08 ton*	
	2.08 ton*	
	2.08 ton	
I2.R3 35 kg/year of mercury use/release avoided in priority sectors -175 kg in total-. (other than ASM)	180.63 kg	103
I3.R3 Improved access to finance for the ASM sector through development/upgrading of 2 financial products.	2	100

I1.R4 11,778 people (3,533 women and 8,245 men) made aware of sound waste management chemicals.	138497	1176
I2.R4 Meet 29 of the M&E requirements of GEF UNDP and, apply adaptive management in the following areas response to the needs and findings of the RMT	29	100
I3.R4 28 case study reports, publications, publications, presentations, articles (...)	600	2143

Source: Prepared by the authors based on the Project's EMS.

The evaluation considers it important to point out that the methods used to calculate the target for the indicator marked with an asterisk in the table (I1.R3) are based on estimates and assumptions that could be affecting the accuracy of the value reported and that the reduction data resulting from the implementation of the different strategies (training and marketing strategy) may be inaccurately accounted for[3] .

This situation is explained by the difficulty of collecting reliable data on mercury use in a country where its use in mining is prohibited and by the omission of the design of measurement instruments in the formulation of the Project.

To overcome this difficulty, Planet Gold (2023) proposes a series of procedures and calculation formulas to estimate the mercury avoided, eliminated and reduced as a result of the implementation of different types of actions aimed at discouraging its use. These guidelines were not fully implemented by the project because they were disseminated a f t e r the initiative was closing its technical implementation.

For evaluation, achieving greater reliability of data is important to know the real effects of investments and thus be able to make scalability and replication decisions based on robust evidence.

The aforementioned observations do not change the overall positive assessment of the effectiveness in meeting the goals, and it is also noted that the progress shown in the indicators has had a correlation in the achievement of results and progress towards the direct effect and impact sought. Aspects to be reviewed in the findings presented below.

Finding 12

As a result of project implementation, capacities for the Sound Management of Chemicals have been strengthened.

Within the framework of the implementation of component 1 and complementary actions of the other three components, the project made progress in overcoming two of the five barriers identified in the theory of change formulated in the design phase (Table 8).

The first barrier: "Limited institutional coordination and capacity to support POPs, Hg and waste management", was addressed by the following goods and services -or products- of the Project:

a. The implementation of a capacity building program, consisting of four online courses on POPs and mercury management, in which 21 public and private entities participated; b. The creation of analytical capacity for POPs and mercury in three national laboratories[4] ;c. The activation, facilitation and strengthening of multi-stakeholder dialogue spaces; highlighting the convening, drafting of regulations and constitution of commissions on POPs and mercury of the National Environmental Quality Committee.

Weak regulatory/legal framework to support sound management of POPs and mercury".
The second barrier related to this component was the development of plans and guidelines,

[3] The project reports 1.07 tons of mercury avoided as a result of the implementation of the marketing strategy and 1.01 tons of Hg avoided as a result of training activities.

[4] a. Laboratory of the Instituto de Investigaciones Geológicas y Energéticas; b. Water and Sediment Quality Laboratory of the National Institute of Geology and Energy
Meteorology and Hydrology; c. Laboratory of the Agency for Regulation and Control of Biosafety and Quarantine for Galapagos; d. Laboratory of the Agency for Regulation and Control of Biosafety and Quarantine for Galapagos.

manuals, ministerial agreements, cost-benefit studies (on POPs and mercury) and POPs analysis of imported products, instructions and proposals for regulations on chemical substances in Ecuador (27 in total) (see Appendix 9. List of instruments developed).
The products generated strengthen the State's capacity for better chemicals management and provide fundamental inputs for strengthening regulations in the future.

For the evaluation, the use -and potential future use- of the goods and services developed resulted in a stronger capacity for coordinated management of chemical waste than before the implementation of the project (Table 8).

Table 8. Barriers, outputs and results obtained from component 1.

Barriers	Goods and services	Results
Limited institutional coordination and capacity to support POPs, Hg and waste management. Weak regulatory/legal framework to support sound management of POPs and mercury.	Capacity building programs Analytical capacity building for POPs and mercury -technical and equipment- in three national laboratories. Activation and facilitation of multi-stakeholder dialogue spaces. Development of public policy instruments and/or inputs for their development.	Increased inter-institutional capacity and coordination to strengthen chemical waste management.

Finding 13
The Project proposal was effective in its contribution to eliminating stockpiles and reducing the use of POPs.

The implementation of component 2 of the Project successfully challenged the "Limited capacity and knowledge for the elimination of pesticides, wastes and residues in the use and release of POPs"; the third barrier identified in Prodoc.

Table 9. Barriers, outputs and results obtained from component 2

Barriers	Goods and services	Results
Limited capacity and knowledge for the disposal of pesticides, wastes and residues in the use and release of POPs.	Establishment and/or strengthening of collaboration networks. Technology transfer and adoption.	Reduced stockpiles and/or use of POPs and POPs-Ni in the intervention territories.

As a result of the actions implemented to overcome these obstacles, two major goods and services were developed. Namely:

a. Establishment and/or strengthening of collaboration networks and

b. Technology transfer and adoption.

Within the framework of the establishment and/or strengthening of collaboration networks, the Project coordinated with INNOVAGRO, the Agency for Regulation and Control of Biosafety and Quarantine for Galapagos, the Heifer Foundation, the Peasant Social Security, Agrocalidad, the Government of Galapagos, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of

Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, the Ministry of Agriculture, and the Ministry of Health.

Decentralized autonomous agencies of Galapagos, companies (such as shipping, cement, and oil companies), among other institutions.

In this line of work, for the elimination of obsolete containers and pesticides, joint actions were implemented for training, awareness-raising, research -updating the inventory of products-, collection, transport of waste, empty containers and agrochemicals that have reached the end of their useful life, transfer of equipment and promotion of sustainable agricultural practices (including the proper management of chemicals).

The set of actions allowed the elimination of 239.95 tons, of which 146 tons correspond to obsolete pesticides and 90.68 tons to the increase in Innovagro's capacity to collect empty containers.

In addition, taking advantage of the collaboration networks generated with the GADs of San Cristóbal, Santa Cruz and Isabela, the Project, through a specialized company, managed to manage 35,490 kg of waste and/or household waste (unused mattresses, refrigerator foam, electrical equipment and rigid plastics) accumulated in recycling centers in Galapagos. In addition, in conjunction with PETROECUADOR, 22,510 kg of expired chemicals or out-of-specification refining end products were disposed of.
Reached a total of 58.03 tons of reduced POPs.

As part of the technology transfer granted, the GAD of Santa Cruz was provided with a high-tech incinerator and personnel were trained in its use, enabling the local government to reduce emissions of POP-NIs from the burning of hospital waste from 3,353 g TEQ/year to zero.

In addition, in order to reduce emissions of unintentional persistent organic pollutants, the project promoted and transferred best available techniques (BAT) and best environmental practices (BEP) to the sugar industry.

In alliance with the National Federation of Sugar Mills of Ecuador, a strategy was designed to promote EPM and BAT to companies in the industry. This consisted of accompanying the Valdez, La Troncal and San Carlos sugar mills so that they could access the "Green Dot" environmental incentive[5] .

After a diagnosis and analysis of their emissions, the companies were trained in integrated fire management and in the adoption of other BAT/BEP for reducing POPs-NIs. The strategy was effective: 17,579 g TEQ/year of POP emissions were avoided as a result of these companies' technological adoption.

Key informants state that the involvement and adherence of the industries to the process is explained by the fact that they identified environmental certification as an opportunity to increase the prestige of their brand and by the quality of the technical assistance received.

Finding 14

The strategies developed and products produced by the Project resulted in the reduction and elimination of mercury in priority sectors other than mining.

[5] Green Dot is an Institutional certification granted by the Ministry of Environment to activities that optimize natural resources in their processes, demonstrating reduction of negative environmental impacts (MAATE. 2019).

The Project showed a way forward to overcome the obstacle of "Limited capacity for coordinated reduction in the use and release of mercury in priority sectors" identified in the formulation of the Program (Table 10).

Table 10. Barriers, outputs and results obtained from component 2(a)

Barriers	Goods and services	Results
Limited capacity for coordinated reduction in the use and release of mercury in priority sectors	Support for waste management, generation of proposals and preparation and socialization of instructions to reduce mercury stocks in the country. Joint work for the elimination of mercury in IESS and INAMHI hospitals.	Mercury contamination of the environment from products other than ASM has been reduced.

On the one hand, it worked in coordination with the Ecuadorian Social Security Institute (IESS) and the National Institute of Meteorology and Hydrology (INAMHI) on the management, elimination and replacement of mercury-containing equipment.

The project was effective in this regard. After inventory, sensitization, capacity building, support and strengthening of the management of unused products and equipment replacement, 2.65 kg were eliminated from INAMHI and 42.01 kg from IESS hospitals. With these results, according to the public officials consulted, the IESS would have eliminated all unused mercury-containing products; an excellent achievement of the Project.

Another of the assets developed aimed at overcoming this barrier was support for waste management, the generation of proposals and the preparation and dissemination of instructions for reducing mercury stocks from products other than ASM in the country.

In this line, the intervention began with awareness-raising and capacity building for electricity company employees. This support contributed to a reduction of 112.14 kg of mercury. This figure was achieved thanks to the proper management of unused discharge lamps and the replacement of discharge lamps with LED luminaires.

The Project also actively participated in the preparation and subsequent approval of an instruction for the application of extended producer responsibility in the integral management of disused discharge lamps and/or LED lamps (ministerial agreement No. MAATE- 2022-097). The five-year projection is to achieve a reduction of 25.91 kg of mercury as a result of the implementation of the instruction.

In addition to the above, the Program promoted a pilot extended responsibility management model for disused discharge lamps and LEDs in Galapagos and a cost-benefit evaluation of the ban on imports of mercury-added products, by-products that at the time of the evaluation had not yet shown results.

For the evaluation, the key to success in these areas was the ability to establish agreed methodologies, shared objectives, realistic goals and the limited institutional and territorial scope of the intervention (see section 5. Lessons learned).

Finding 15

As a result of the implementation of the Project, access to financing has improved, confidence has increased and sales volumes of artisanal miners to beneficiation plants using mercury-free technologies have increased.

Addressing economic and capacity barriers to the adoption of practices that do not use or reduce the use of mercury in ASM was successful.

The project made progress in this direction by designing and implementing a marketing strategy that linked artisanal miners with processing plants that do not use mercury and by developing financial instruments for small-scale mining (Table 11).

Indeed, access to financing is better than before the project. The credit instrument designed in cooperation between the Ministry of Energy and Mines, the Ministry of Environment, Water and Ecological Transition, and BanEcuador provides ASM with financing to optimize and incorporate technology into its production processes.

On another track, confidence and sales volumes from miners to mineral processing plants using mercury-free technologies increased.

The design and implementation of a marketing strategy, where laboratories are included as an impartial third party to calculate the percentage of gold in the material delivered, achieved these advances, which would avoid the use of 1.07 tons of mercury.

The medium and long term impact of these products described remains to be seen. The hypothesis put forward by key actors that the volume of ore, intensity of technological adoption and levels of formalization are indirectly proportional to the use of mercury in ASM should be confirmed.

Table 11. Barriers, outputs and results obtained from component 2(b)

Barriers	Goods and services	Results
Economic and capacity barriers to the adoption of practices that do not use or reduce the use of mercury in ASM.	Design and implementation of marketing strategies. Development of financial instruments	Improved access to financing. Increased confidence and sales volumes from miners to beneficiation plants that use mercury-free technologies.

Other actions deployed under this component were less effective in promoting practices that do not use or reduce the use of mercury in ASM (barrier identified in Prodoc).

For example: the capacities developed in Jancheras, the ministerial agreement to recognize their work as "basic recyclers in the special regime of small metal mining" and to "improve the technical, environmental and social conditions of their work, as well as their formalization and association" and the attempt to diversify them productively through the promotion of the establishment of organic vegetable gardens, did not generate results.
emissions linked to the reduction of mercury use in ASM, i.e., they did not contribute to barrier removal.

The Jancheras interviewed expressed that none of them have changed and/or reduced the volume of harvesting and processing; that a minimum percentage has managed to keep their orchards active and that the commitment to formalize them and improve their working conditions has not been echoed in their organizations.

In the opinion of the evaluation, the formalization strategy proposed by the Project collided with a culturally rooted way of life, and the search for productive alternatives contradicted the purpose of dignifying and valuing this work.

Jancheo is a way of life: "My grandmother, my mother and I dedicate ourselves to this"; "it suits us, we choose when to go collecting. It could not be any other way because we also have to take care of things at home"; "we do not see the benefit of formalizing, you would have to comply with schedules and we would lose the freedom we have now" "There -in the jancheo-, we get together, take turns and accompany each other". These are some of the statements made by women belonging to this group.

The evaluation conceptualizes this situation as a programmatic dissipation, i.e., actions that move away from the objectives and results of the original project design.

Notwithstanding the above, the evaluation highlights that unplanned results were achieved. The jancheras were made visible as a group that contributes to the country's mining development, they were provided with safety equipment, and there was a specific increase in their income from the marketing of products from the home gardens, among other aspects discussed in section 3.3.6 Gender.

Finding 16

Awareness has been raised and the importance of improving chemicals management in Ecuador has been placed on the public agenda.

Insufficient awareness of POPs, mercury and waste management is the last barrier identified in Prodoc. To overcome this barrier, the Project implemented a knowledge management strategy that, according to data provided by the monitoring and evaluation system, reached 138,497 people.

Among the communication products, the campaigns "golden rules", "I value your work" and "allies of the environment". Giving communication support to specific processes promoted by the Project was a wise decision; they facilitated the dissemination of actions and key messages that were deemed necessary to highlight within the framework of the execution of each component.

In addition, within the framework and/or parallel to the implementation of the specific campaigns mentioned above, press releases, audiovisual products, documentation of case studies, informative workshops were produced in the intervention territories and, among other additional actions, efforts were made to store knowledge products in a digital repository located in MAATE's offices and a national research agenda for the management of chemical substances in Ecuador is in the process of being developed.

3.3.4 Progress towards impact

Finding 17

The products developed and the results achieved have had the direct effect of strengthening capacities for the adoption of environmentally sound management of the life cycle of chemical substances in Ecuador.

The driving force behind the chain of results that triggered the Project - set out in detail in Table 11 - was capacity building in the three dimensions proposed by UNDP, UNEP and GEF (2010). These are: individual, institutional and systemic or environmental.

Individual capacities were developed within the framework of training programs provided to public and private officials and community stakeholders.

Institutional strengthening at the state level has been expressed in the development of public policy instruments and/or inputs to develop them and in the provision of equipment. At the private level, it has been expressed in the creation of analytical capacity for POPs and mercury, technologies transferred to the mills, and the development of financial instruments, among other products.

The generation of enabling environments was achieved thanks to the implementation of the commercialization strategy, the creation and strengthening of inter-institutional coordination spaces at the national and local levels, the public-private alliances fostered and the inclusion in the public agenda of the importance of moving towards environmentally sound chemical management models.

Chain of results caused by the project

The development of products allowed progress to be made in overcoming the barriers identified in the Prodoc. The magnitude of progress was conceptualized and understood by the evaluation as results. As a whole, the latter were responsible for the generation of enabling environments and the strengthening of individual and institutional capacities that contributed to the following direct effect identified by the evaluation: improved capacities for the adoption of environmentally sound management of the life cycle of chemicals in Ecuador.

For the evaluation, the effect achieved is a step forward in the challenge of protecting human health and the environment from the impact of harmful chemicals, particularly Persistent Organic Pollutants and mercury (the impact sought by the project). Environmentally sound management would mitigate the environmental and health consequences caused by the inadequate management of chemicals in the country.

In order to consolidate progress towards this impact, it will be necessary to take advantage of and strengthen the contribution made. This exercise - outside the project's scope of action - should be oriented towards the materialization of intermediate states between the effect achieved and the impact sought, which in turn will be conditioned in part by the confirmation of some assumptions (details in Table 12).

Reconstruction of the chain of changes brought about by the Project

Barriers to overcome	Products developed	Intermediate results achieved
Limited institutional coordination and capacity to support POPs, Hg and waste management. Weak regulatory/legal framework to support sound management of POPs and mercury.	Capacity building programs Analytical capacity building for POPs and mercury -technical and equipment- in three national laboratories. Activation and facilitation of multi-stakeholder dialogue spaces. Elaboration of public policy instruments and/or inputs to elaborate it.	Increased inter-institutional capacity and coordination to strengthen the management of chemical substances and waste.
Limited capacity and knowledge for the disposal of pesticides, wastes and residues in the use and disposal of pesticides. release of POPs.	Establishment and/or strengthening of collaboration networks. Transfer and adoption technology.	Reduced stockpiles and/or use of POPs and POPs-Nis in the intervention territories.
Limited capacity for coordinated reduction in the use and release of mercury in priority sectors	Support for waste management, generation of proposals and preparation and socialization of instructions to reduce mercury stocks in the country. Joint work for the elimination of mercury in the country's hospitals. IESS and INAMHI.	Mercury contamination of the environment from products other than ASM has been reduced.
Economic and capacity barriers to the adoption of practices that do not use or reduce the use of mercury in ASM.	Design and implementation of marketing strategies. Development of financial instruments.	Improved access to financing. Increased confidence and sales volumes from miners to ore processing plants using mercury-free technologies.
Insufficient awareness in VCM of chemicals, POPs, mercury and wastes.	Design and implementation of knowledge management strategy.	Raised awareness and placed on the public agenda the importance of improving chemicals management in Ecuador.

Direct effect of the project

Capacities for the adoption of environmentally sound management of the life cycle of chemicals in Ecuador are further strengthened.

Intermediate States

It systematizes and shares evidence of the effects that the practices, processes, and mechanisms promoted by the Project generated.	Inter-institutional dialogues are encouraged to continue to operate, expand and strengthen
The processes and products developed by the project are institutionally anchored to the Ecuadorian State.	Processes are maintained and proven methodologies for mercury product disposal, pesticide management and POPs-NIs reduction are scaled up.
The number of miners accessing credit and subscribing to the commercialization strategy is increasing thanks to the State's promotional activities. Ecuadorian.	The new externally funded projects on chemical management replicate the successful experiences of the initiative in other territories and institutions.

Assumptions

UNDP and other stakeholders continue to participate in inter-agency coordination and technical assistance forums.	The public policy instruments developed are used as a framework to guide the actions of the Ecuadorian State.
The public-private and private-private agreements promoted by the Project remain in force and operative in the medium and long term.	In the event of possible changes of government, there is still interest and political will to promote proper chemicals management in Ecuador.

Impact

Protected human health and the environment from the impact of harmful chemicals, in particular Persistent Organic Pollutants and mercury.

3.3.5 Efficiency

Finding 18

The financial resources provided by the GEF were sufficient to form a quality team, execute the planned activities and achieve the outputs committed in the Prodoc.

The evaluation confirms that the USD 8,490,000 provided by the GEF, in addition to those leveraged through cofinancing (USD 62,329,175) were used for the purposes stipulated in the project's programming and that they were sufficient to form a team of the size and quality needed to implement the intervention strategy, achieve the results, generate outputs and execute the planned activities.

The national structure of a coordinator, thematic experts, a monitoring officer and the support of administrative personnel, allowed the project to be executed in accordance with the needs and programmatic commitments of the project.

Although the human resources were able to satisfactorily fulfill their functions and responsibilities, it would have been optimal to consider personnel that would perform permanent field accompaniment functions and a social science profile to lead the work of organizational strengthening and capacity building in groups living in poverty and vulnerability, such as the jancheras.

Finding 19

The project suffered justified delays in its implementation. The requested extension was adjusted to the time required to achieve the technical and financial execution of 100% (app.) of what was planned.

The formal start of the project was in March 2018. The financial planning scheduled for that year was USD 974,168.00, However, during that period only 15% of the budgeted (USD 177,200.00) was executed. The initial delay could be explained by the initial times involved in setting up the technical teams and renewing the agreements established during the design stage between the implementing agency and the executing partners (Figure 1).

In 2019, the gap between budgeted and executed budgets was considerably reduced, reaching a difference of less than 10%. However, in the following two years, i.e. 2020 and 2021, the gap widened again and only 67% of the budgeted amount was executed.

The most influential reasons that would explain this situation are:

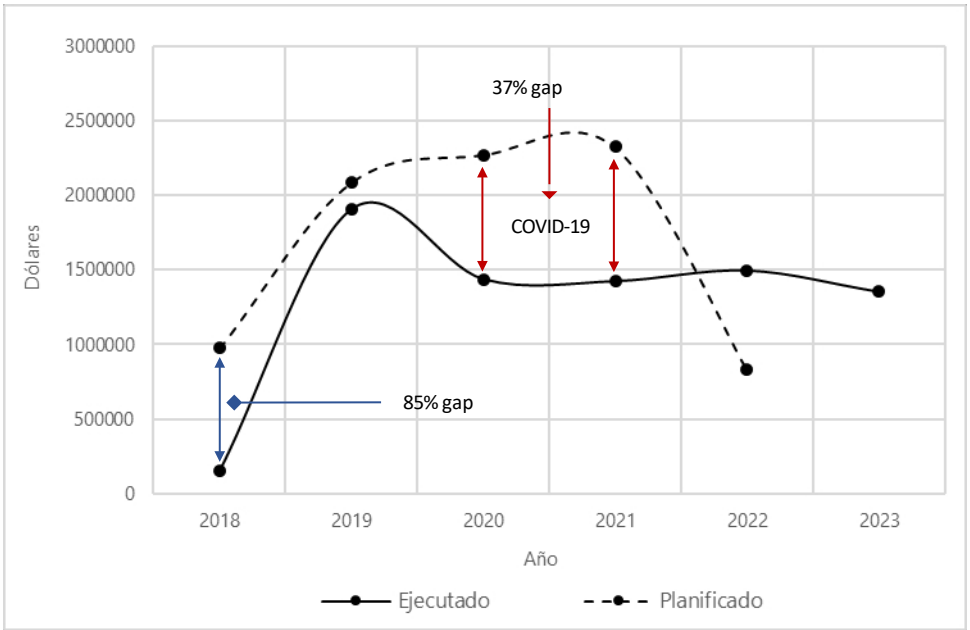
a) The mobility and meeting restrictions imposed to address the COVID-19 health crisis in 2020 and 2021 prevented the deployment of activities and consequently affected the planned investments;

b) The election process and change of government in May 2021, which will require some time to update the new authorities and officials who took office.

Once these contextual conditions were overcome, the Program entered a phase of accelerated spending, achieving a spending rate in 2022 that exceeded the budgeted amount.

originally. However, it maintained a carryforward under-execution delta from previous years.

Graph 1. Planned budget vs. materialized expenditure by year



Given that the project would be completed in 2022 and that there were still resources to be executed, it was decided to request a 16-month extension from the GEF. It was decided to request a 16-month extension from the GEF, which was justified by the contextual conditions described above, agreed by the steering committee and accepted by the donor. According to key informants, it is expected that by July 2024, the date agreed for administrative closure, close to 100% of the total budget will have been executed.

Finding 20

The materialized alliances were a factor in the Project's efficiency.

The established articulations optimized installation time in the territories (for example in Galapagos through the alliance with the GADs and the ABG) and facilitated the approach to the private world (an example is the articulation generated with the National Federation of Sugar Growers of Ecuador, which opened the door to the work carried out with companies in the industry) and public institutions such as the IESS hospitals, maximizing efficiency in the use of time and human resources available to execute the Project.

3.3.6 Genre

Finding 21

The project's actions made it possible to raise the visibility of women's groups, sensitize and train different actors and mainstream the approach in some of the public policy instruments developed.

As mentioned in section 3.1.1, although the Project developed a gender diagnosis and strategy, the quality of the instruments was not optimal.

The analysis and strategy were focused only on the mining sector and were based on secondary information. The background information collected did not allow for the identification of the gaps and the problem to be addressed, the causes of inequalities were not examined, and no short, medium and long term results were proposed, among other omissions to the standards included in the "checklist to design and develop a project" and the definitions of UNDP Ecuador's gender policy. These shortcomings were corrected through an evaluation and updating exercise of the designed strategy.

Despite the fact that the Project's ambition - according to its gender marker GEN1 - was to "contribute in a limited but not significant way to gender equality", the evaluation notes that during the implementation of the Program it went beyond what the marker indicates; there were gender responsive actions aimed at raising the visibility and awareness of the local actors present in the intervention territories and at training on the importance of mainstreaming the approach in public management.

Among the activities carried out, the following stand out:

- The course "Empowerment of women in the context of rural areas" provided to more than 50 women in San Cristobal, Galapagos, as part of the UNDP Ecuador initiative "Botas Violeta[6] ".
- A workshop on "new masculinities" for men from Cantón San Cristóbal in Galapagos.
- The inclusion of images that challenged gender stereotypes in mining within the framework of the communication campaign "I value your work" and the elaboration of other communication products that highlighted and made visible the role of women in the Project's thematic areas.
- The inclusion of gender modules in training programs on the Minamata and Stockholm Conventions.
- A capacity building program was developed for MAATE, MEM, members of the POP and Hg subcommittees of the National Environmental Quality Committee and beneficiaries.

As tangible results of the intervention, the evaluation highlights the inclusion of the gender perspective in some of the policy instruments designed -such as the national action plans of the Minamata and Stockholm Conventions-, as well as the consideration of the Gender Equality Council as one of the members of the National Environmental Quality Committee.

It also recognizes the value, beyond its contribution to the Project's theory of change, of the effort made to make women's work in mining, especially that of the Jancheras, visible and valuable.

[6] Botas Violeta is a UNDP initiative in Ecuador that invites everyone to train to take a decisive step towards equality.

3.3.7 Additionality

Finding 22

Project initiatives generated incremental environmental benefits, added technological innovation and knowledge to the institutions and territories where they were deployed, and supported the State in establishing financing and public policy instruments for sustainable development.

Key informants from the government and companies point out that the achievements in environmental matters, capacity building for the development of public policy instruments and the adoption of technology and transfer of knowledge to government institutions and companies would not have been possible without the methodological, technical, financial and coordination support provided by the project.

In the area of environmental benefits, the following stand out:

a. The elimination of 239.95 tons of obsolete pesticides;

b. The reduction of 36g of POPs-NIs and 58.03 tons of new POPs releases;

c. Prevent 180.63 kg mercury from being released into the environment; and

d. Considering that there may be impressions in the calculation, avoiding the use of at least 2.08 tons of mercury in ASM[7] .

In the development of financing instruments, public policies and governance for a better environment, support was provided for the preparation of more than 27 instruments - or inputs for developing them - that will remain as tools to guide institutional action in the future. Among the most noteworthy are:

a. The marketing strategy for ASM;

b. The financial instrument developed to support small-scale and artisanal mining;

c. The national action plans of the Minamata and Stockholm Conventions, and

d. The establishment and strengthening of the National Environmental Quality Committee.

The capacities developed and the technology transfer carried out (training on fire management in sugar mills, the provision of equipment for the treatment of hospital waste, the online courses - 4 in total - on POPs and Mercury management, among others), is another benefit that the Project accelerated.

Considering this background, the evaluation notes that the Program has generated added value in five of the six areas proposed by the GEF in its 2020 additionality report. These are: environmental, financial, regulatory, institutional and innovation.

3.3.8 Catalytic effect

Finding 23

The Project has experiences that have potential for expansion and replication.

[7] The above weaknesses and impressions are explained in section 3.3.3.

The assessment identifies four experiences that would have catalytic potential. These are:

a. MAPE's marketing strategy;

b. Articulated territorial work carried out in Galapagos to reduce POPs and POPs-NIs;

c. The financial instrument for small-scale mining -which already has a national scope-; and

d. The joint work with IESS for the elimination and replacement of equipment containing mercury.

To increase the chances of this happening, these actions should be conceived as pilots. This implies understanding them, in addition to the value that the Project's objectives had in their contribution, also as initiatives whose purpose was to test innovative ways of working and methodologies, to then systematize them and promote, based on the evidence, their replication and amplification.

A good systematization, in addition to describing the process and drawing lessons, should provide information on its costs, a calculation of the environmental effects and a quantification of the social and economic benefits that the scaling up and/or replication of the experience would have.

3.3.9 Sustainability

> **Finding 24**
> **Sustainability is not assured. Multi-stakeholder agreements with private participation and continuing external cooperation projects partly mitigate the institutional, financial and political risks that jeopardize the likelihood that the benefits achieved and the processes promoted will be maintained once funding ceases.**

The opinion of the key actors is unanimous: the Ecuadorian State is not in a financial and institutional position to ensure the continuity of the processes, results and impacts achieved by the Project.

While at the sectoral and technical level there is a willingness and commitment to sustain the initiative once funding ceases, at the central level the priorities are different. The crisis facing the country has led to a focus on increasing public spending on security.

If this situation continues, MAATE's human and material resources, which are already insufficient to sustain the Project's strategy, will at best be maintained during this period.

In addition to the institutional and financial risks, there are political risks. In 2025 there will again be general elections in the country, and, as is natural, there will likely be updates to the priorities of the Ecuadorian state.

Given this scenario of instability, external financing projects will play a fundamental role in mitigating the risks identified.

Among the initiatives that could give some continuity to the Program, the FARM and GOLD+ projects stand out. Both are implemented by UNDP in association with MAATE and the Ministry of Livestock (MAG) in the case of the former, and with MEM and MAATE in the case of the latter.

The objectives of these projects are fully in line with those of the evaluated initiative.

Likewise, the actions developed in coordination with private companies (such as the mineral commercialization strategy, the sugar mill certification process, the work with INNOVAGRO, among others, considering the opinions gathered by the evaluation and the fact that they are less exposed to the ups and downs of the economic situation, have a good chance of being sustained over time.

4. Conclusions

Results

The project was highly relevant. Its alignment with the strategic priorities of the Ecuadorian State, the GEF and UNDP and the 2030 Agenda for Sustainable Development favored the involvement of different actors and ensured lasting interest and participation of stakeholders throughout the intervention cycle.

Responding to national and global interests also facilitated the establishment of synergic relationships with different public and private institutions that contributed substantially to the effectiveness, efficiency and sustainability of the Project.

The high relevance and coherence achieved were the foundation for an equally satisfactory effectiveness; all the indicators formulated were met and in some cases exceeded.

The good performance in technical execution had a positive impact on overcoming the barriers identified in the project's formulation document. The results obtained as a whole contributed to strengthening national capacities for the adoption of environmentally sound management of the life cycle of chemicals in Ecuador, a step towards protecting human health and the environment from the impact of POPs and mercury.

Despite justified delays and some investments in actions that were programmatically dissipated, implementation was generally efficient. The budgeted resources were used for the agreed purposes and inter-institutional links were established, which made it possible to broaden the territorial scope, reduce implementation times, and multiply and maximize the results obtained.

In addition to the above, the evaluation concludes that the Project's actions generated incremental benefits; added technological innovation and knowledge to the institutions and territories where they were deployed and supported the State in the establishment of financing and public policy instruments for sustainable development.

It has also been noted that some of the strategies implemented with institutions and/or in limited territories have proven to be effective. Their catalytic effect will depend on a good systematization and active management of the knowledge generated by the Project.

On the other hand, although there was no substantive contribution to closing political and economic gaps at the community level -which is consistent with the Project's gender marker (GEN1)-, gender-responsive actions were implemented that made it possible to raise the visibility of women's groups, sensitize and train different actors and mainstream the approach in some of the public policy instruments developed.

The good results in the aforementioned areas are not proportionally related to the likelihood of sustainability. The political and institutional oscillations, coupled with a scenario of economic contraction and the targeting of public resources towards sectors

other than those of the Project, jeopardize the continuity of the processes underway and achievements attained.

Performance factors

The technical execution of the Project was conditioned by factors that either supported or reduced its performance.

The design and implementation of an EMS system that met the Project's monitoring and accountability needs and played a key role in providing information for timely decision making is a key element.

Another success factor was execution and implementation. MAATE and UNDP as executing and implementing entities, with the exception of the quality of the results matrix, have satisfactorily performed the basic functions and standards required and described by the GEF.

Adaptive capacity was also an aspect that contributed to good performance. Although the Project was exposed to a complex health context and an unstable political scenario, it provided responses that were adjusted to its possibilities and were aimed at not substantially conditioning implementation needs.

On the other hand, among the aspects that affected the project's performance, the preparation of a results matrix with inconsistencies in its vertical and horizontal logic stands out. Its potential impact on the quality of technical follow-up and the possibilities for results-based management was mitigated thanks to a good response capacity on the part of the executing team and the incorporation of the recommendations made by the RMT in this area.

Overall assessment of the project

The evaluation assesses the project as satisfactory, i.e. it meets expectations and the deficiencies have not substantially affected its performance.

It was relevant, coherent, efficient and effective, showed good adaptive capacity, performed quality technical monitoring and follow-up, and the implementing and executing institutions satisfactorily fulfilled their functions.

As a result of its implementation, national capacities were strengthened for the adoption of environmentally sound management of the life cycle of chemicals in the country.

In order to progress along the path of change, it will be necessary to make institutional efforts to materialize the intermediate states and assumptions that would allow us to continue advancing towards guaranteeing the protection of human health and the environment from the impact of Persistent Organic Pollutants and mercury in Ecuador.

5. Lessons learned

The evaluation was able to draw the following lessons learned:

- **Lesson learned 1.** The possibilities for change are greater if the communication and promotion of the regulations and the risks associated with the use and/or contact with substances
  The chemical industry is accompanied by incentives and the offering of socially, economically and culturally viable alternatives.
- **Lesson learned 2**. It is important to include among the sources of verification of environmental indicators, measurement instruments that provide reliable and comparable information both territorially and temporally.
- **Lesson learned 3.** The participation and adherence to best practice integration processes by companies and other private organizations is explained by
  The project showed them how to do it, facilitated the necessary inter-institutional coordination, accompanied them along the way, and because they saw in these changes an opportunity to increase the prestige of their brands.
- **Lesson learned 4.** The adoption and maintenance of good practices is contingent upon a positive economic balance for the implementer.
- **Lesson learned 5.** Including the private sector in medium-term cooperation agreements is a good way to mitigate institutional and political risks and improve the initiative's chances of sustainability.
- **Lesson learned 6.** Efforts to formalize and insert poor and vulnerable groups with low levels of organization into productive chains.
  The weak -such as the case of the jancheras-, require multidisciplinary, in-depth, long-term interventions oriented, at least initially, to the development of individual capacities and organizational strengthening.
- **Lesson learned 7.** In fragile and changing environments, territorial and/or institutionally limited interventions with clear, shared and short term objectives, and with a clear and shared vision for the future.
  are more likely to be successful than more far-reaching strategies.
- **Lesson Learned 8. To** understand the initiatives implemented by the Project as
  The use of pilot projects, and not only as an end in itself, is an appropriate approach if what is sought is the scaling up expressed in the construction of replications and evidence-based public policies.
- **Lesson learned 9.** To conceive the Prodoc as an instrument with margins of flexibility made it possible to adapt the intervention - products and territories - to an unstable institutional and political context.

6. Recommendations

Recommendation 1. To UNDP on quality assurance of the results matrices.

In order to improve the quality of the project results matrices, it is recommended that UNDP Ecuador strengthen the procedures for verification and quality assurance of the logical frameworks that are designed.

Recommendation 2. To MAATE, MEM and UNDP on monitoring the impact of strategies aimed at reducing the use of mercury in ASM.

In order to have evidence of the impacts on the reduction in the use of mercury that the credit instrument and the mineral sale strategy will have in the medium term, it is recommended that MAATE, MEM and UNDP carry out, within the framework of the execution of future projects, a study that provides counterfactual information on the environmental and economic effects that these instruments are generating.

Recommendation 3. To MAATE, MEM and UNDP on the possibilities of replicating successful experiences.

In order to promote the multiplication and sustainability of results, it is recommended to generate a space for discussion aimed at seeking alternatives for the integration of the Program's outstanding experiences in the continuity projects to be implemented by UNDP (Gold+ and FARM).

- **Suggestion 1.** Conduct a workshop for the exchange of experiences and integration in which The teams and implementing partners of the three projects (PNGQ, FARM and Gold+) are involved.

Recommendation 4. To UNDP and other interested parties on work at the community level.

For future initiatives that contemplate direct work with grassroots groups and/or territorial actors, it would be favorable to consider the formation of multidisciplinary teams, preferably made up of thematic experts, but with the support of specialized profiles in community development.

Recommendation 5. To MAATE, MEM and UNDP and on ensuring the sustainability of the partnerships and governance spaces promoted by the Project.

As a way to contribute to ensuring sustainability, it is recommended that a protocol of understanding be agreed between the parties to establish, in the short and medium term, responsibilities, follow-up goals, technical support and facilitation of governance spaces (such as the National Environmental Quality Committee) and the alliances and/or commitments acquired by and/or with the participation of the private sector.

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Appendices

Appendix 1. List of key players consulted

Program Team	
Name	**Position or responsibility and institution**
1. Bruno Bellettini	Project Coordinator
2. Diana Cabrera	Monitoring and evaluation technique from a gender perspective
3. Franklin Góngora	Technical COPNIs
Gaston Zambrano	Pesticide Technician COP
5. Ángela Quishpe	Technique POPs products and mercury-added products
6. Luis Tapia	Technician Artisanal and small-scale mining (ASM)
7. Meivol Brito	Financial Administrative Assistant
8. Gisselle Vila	Knowledge Management Consultant Team Leader
Implementing agency, executing agency and implementing partners of the Program	
9. Matilda Mordt	Resident Representative UNDP Ecuador
Mario Rodas	Environment and Energy Program Officer
Kasper Koefoed	Regional Technical Assessment RTA (Regional Office - Panama)
Partner institutions	
Daniel Donoso	Director of Chemical Substances, Hazardous and Non-Hazardous Waste and Residues (MAATE)
Paulo Veintimilla	Director of Environmental Monitoring (MEM)
Sofia Palacios	Analyst of the Small Mining Directorate (MEM)
Yahaira Atapuma	Analyst of the Directorate of Artisanal Mining (MEM)
Ana Tello	Chemicals, Hazardous and Non-Hazardous Waste Specialist (MAATE)
Cristian Gonzalez	Chemicals, Hazardous and Non-Hazardous Waste Specialist (MAATE)
Irene Schuldt	Director of International Cooperation (MAATE)
Other key players	
19.Andrés Jara	Environmental Specialist. National Subdirectorate of Infrastructure and Equipment IESS.
Marcelo Armijos	Coordinator, National Directorate of Reserves Management (BCE)
Judith Venegas	Responsible for CIMET Center for Information on Medicines and Toxics. Central University
Sebastian Vasquez	EMICOR AND PROSARESA
Karla Alvarado	Legal representative of the Association of Goldsmiths of the province of El Oro
24. Rosa Sanchez	Representatives and members of the Unión y Progreso and Nuevos horizontes associations of jancheras
25. Andrea Mendieta	
26. Carmen Rivas	
27. Maria Loja	
Magdalena Rodriguez	
29. Juan Loja	
30. José Rosendo Yunga	
31.Carlos Bogotá	Head of the safety and environment department of Ingenio Valdez
32.Fernando Garcia	Executive Director of INNOVAGRO
Donaldo Navarrete	Project Coordinator FOF Ecuador, Heifer Foundation
Diana Salazar	Independent consultants

35.David Coello	
36.Kenny Bermudez	Officials GAD Santa Cruz
37.Daniel Lara	
38.Rommel Iturbide	Responsible for the Food Safety Management process. ABG Regulatory and Prevention Directorate.

Appendix 2. Field work agenda

Week 1				
Date	**Time**	**Type of agent Key**	**Name**	**Location**
Monday, March 4	9.00 - 10-00	Project Team	Bruno Bellettini	Quito, PNGQ Office
	10.30 - 11-30	Project Team	Diana Cabrera	Quito, PNGQ Office
	12.00 - 13.00	Project Team	Franklin Góngora	Quito, PNGQ Office
	14.30 - 15.30	UNDP RR	Matilde Mordt	Quito, UNDP Office
	16.00 - 17.00	Project Team	Angela Quishpe	Quito, PNGQ Office
Tuesday, March 5	9.00 - 10-00	Project Team	Gaston Zambrano	Quito, PNGQ Office
	10.30 - 11-30	Project Team	Meivol Brito/Lucía Espinoza	Quito, PNGQ Office
	14.30 - 15.30	Programme Officer, Environment and Energy UNDP	Mario Rodas	Quito, PNGQ Office
	16.00 - 17.00	Management Analyst of Small Mining (MEM)	Sofia Palacios	Quito, PNGQ Office
Wednesday, March 6	9.00 - 10-00	Director of Chemicals, Hazardous and Non-Hazardous Wastes and Residues Dangerous (MAATE)	Daniel Donoso	Quito, PNGQ Office
	10.30 - 11-30	Chemicals, Hazardous and Non-Hazardous Waste Specialist Hazardous (MAATE)	Ana Tello	Quito, PNGQ Office
	12.00 - 13.00	Chemicals, Hazardous and Non-Hazardous Waste Specialist Hazardous (MAATE)	Cristian Gonzalez	Quito, PNGQ Office
	14.30 - 15.30	Director of International Cooperation (MAATE)	Irene Schuldt	Quito, PNGQ Office
	16.00 - 17.00	Director of Environmental Monitoring (MEM)	Paulo Veintimilla	Quito, PNGQ Office
Thursday, March 7th	9.00 - 10-00	Consultant team leader Management of the knowledge	Gisselle Vila	Quito, PNGQ Office
	10.30 - 11-30	Analyst of the Directorate of Artisanal Mining (MEM)	Yahaira Atapuma	Quito, PNGQ Office
	12.00 - 13.00	Environmental Specialist National Infrastructure and Equipment Sub-Directorate IESS	Andres Jara	Quito, PNGQ Office
	14.30 - 15.30	Coordinator, National Directorate of Reserves Management (BCE)	Marcelo Armijos	Quito, PNGQ Office

	16.00 - 17.00	Responsible CIMET Centro de Información de Medicamentos y Tóxicos Universidad Central del Ecuador	Judith Venegas	Quito, PNGQ Office
Date	**Time**	**Type of agent Key**	**Name**	**Location**
Friday, March 8	9.00 - 10-00	EMICOR AND PROSARESA (visit to the plant of gold processing and interview)	Sebastian Vasquez	Canton Portovelo Plant
	10.30 - 11-30	-	-	-
	12.00 - 13.00	Regional Technical Assessment RTA (Regional Technical Assessment Office) regional UNDP - Panama)	Kasper Koefoed	Virtual
	14.30 - 15.30	Legal representative of the Goldsmiths Association (Visit to the goldsmith's workshop) goldsmith. Interview)	Karla Alvarado	Canton Portovelo Goldsmith workshop
	16.00 - 17.00	-	-	-
Saturday, March 9th	9.00 - 10-00	-	-	-
	10.30 - 11-30	Representatives of the Union y Progreso janchera association	Rosa Sanchez, Andrea Mendieta	Camilo Ponce Enriquez Canton
	12.00 - 13.00	-	-	-
	14.30 - 15.30	-	-	-
	16.00 - 17.00	-	-	-
Sunday, March 10	9.00 - 10-00	-	-	-
	10.30 - 11-30	-	-	-
	12.00 - 13.00	-	-	-
	14.30 - 15.30	-	-	-
	16.00 - 17.00	-	-	-

Week 2				
Date	**Time**	**Type of agent Key**	**Name**	**Location**
Monday, March 11	9.00 - 10-00	-	-	-
	10.30 - 11-30	Head of the safety and environment department at Ingenio Valdez	Carlos Bogotá	Cantón Milagro Sugarcane plantation, sugar mill office
	12.00 - 13.00	-	-	-
	14.30 - 15.30	-	-	-
	16.00 - 17.00	-	-	-
Tuesday, March 12	9.00 - 10-00	-	-	-
	10.30 - 11-30	-	-	-
	12.00 - 13.00	-	-	-
	14.30 - 15.30	Executive Director of INNOVAGRO	Fernando Garcia	City of Guayaquil Innovagro Office
	16.00 - 17.00	-	-	-
Wednesday, March 13	9.00 - 10-00	-	-	-
	10.30 - 11-30	-	-	-
	12.00 - 13.00	-	-	-
	14.30 - 15.30	Project Coordinator FOF Ecuador, Heifer Foundation	Donaldo Navarrete	Canton San Cristóbal Heifer Office
	16.00 - 17.00	-	-	-
Thursday, March 14th	9.00 - 10-00	NA	NA	NA
	10.30 - 11-30	Responsible for the Food Safety Management process. Regulatory Management and ABG Prevention.	Rommel Iturbide	Canton Santa Cross ABG Laboratory
	12.00 - 12.45	Responsible for the Environment of the GAD Santa Cross	Kenny Bermudez	Canton Santa Cross GAD Santa Cruz
	12.45 - 13.30	Responsible for Environment of GAD Santa Cruz	Diana Salazar	Canton Santa Cross Fabricio Valverde Recycling Center (demonstration of incinerator)
	16.00 - 17.00	-	-	-
Friday, March 15	10.00 - 10-40	Consultants independent	Diana Salazar	Canton Santa Cross

				GAD Office cantonal
	11.30 - 12.00	Consultants independent	David Coello	Consultant's office
	12.00 - 13.00	-	-	-
	14.30 - 15.30	-	-	-
	16.00 - 17.00	-	-	-

Appendix 3. Interview protocol

Project: National Program for the Environmentally Sound Management and Life Cycle Management of Chemicals				
Objective of the interview: To assess and contrast qualitative information related to the criteria and questions of evaluation of the Project.				
Duration: 30- 45 minutes	**Interviewer:** Germán Luebert			
Observation 1: In order to achieve a fluid dialogue, the language used in the formulation of the questions will be adapted to the key agent(s) interviewed.				
Observation 2: Not all questions will be applied to the agents. Some of the questions in this list were selected based on the responsibilities, subject areas and information handled by the interviewee.				
Criteria	**Type of actor[8]**			
Strategic Relevance and Coherence	**EP**	**FP**	**FE**	**BE**
Taking into account the national context and Ecuador's strategic priorities and policies on chemicals management, do you think that the Project's objectives and strategies were relevant?	☐	☐		
Was the Project design and implementation consistent with and did it contribute to the GEF-6 focal areas, strategic priorities and operational programs? Which ones specifically would you highlight?	☐	☐		
Is the project design consistent with the strategic priorities of UNDP and the United Nations System in Ecuador?		☐		
Have there been any changes that have affected the relevance of the Project since its formulation? What are they?	☐	☐	☐	
Do you think that the Project satisfactorily responds to the needs of the beneficiary groups? Could you mention the most relevant needs that in your opinion have been satisfied? Which ones were not satisfied?	☐		☐	☐
Do you think that the Project responds satisfactorily to the needs of you, your grassroots institution and the community to which you belong?				☐
Do you think that the Project responds in any way to the needs of your institution?			☐	☐
Did the Covid-19 pandemic condition the normal execution of the Project? in what way? Were adjustments made and/or innovations implemented to respond to this context?	☐			
Did the changes of government and/or authorities condition the normal execution of the Project? Were adjustments made and/or innovations implemented to respond to this context?	☐		☐	
Coherence: Were synergies and complementarities generated with other initiatives and institutions (national, regional and/or local)? What were the effects of the alliances generated?	☐	☐	☐	

[8] PE: Project Team; PF: UNDP staff; SF: government officials; BE: Beneficiaries; S: Beneficiaries.

Efficiency	**EP**	**FP**	**FE**	**BE**
For you, what have been the main results and effects derived from the implementation of the Project?	☐	☐	☐	☐
Do you think that the Program has contributed to overcoming the barriers identified in the ToC (a selection of barriers is mentioned depending on the key agent)?	☐		☐	
To what extent has the Project contributed to the protection of human health and the environment from the impact of harmful chemicals?	☐	☐	☐	☐
In your opinion: What is the concrete contribution of the Project to capacity building for the Sound Management of Chemicals (SMC) based on a Life Cycle Approach? What aspects would you highlight?	☐	☐	☐	☐
Do you think the Project's actions have contributed to the elimination of stockpiles and reduction of POPs and mercury use and release? In what way?	☐		☐	
From your perspective, how have the Project's communications built awareness of the risks of chemical use?	☐	☐	☐	
According to his opinion and taking into consideration his experience in the execution of the Project What have been the strengths and weaknesses that have allowed (or not) the achievement of the formulated indicators and outputs?	☐	☐	☐	☐
Have unplanned outcomes occurred, and could you describe and assess them?	☐	☐	☐	☐
Efficiency	**EP**	**FP**	**FE**	**BE**
Were the financial resources made available by the project sufficient to achieve the planned results with good quality?	☐	☐		
Were there any budgetary adjustments? which ones? why?	☐	☐		
In your opinion, were procedures and human resources available, sufficient and appropriate to implement the project strategy in a timely and quality manner?	☐	☐		
Did the Project's institutional/organizational structure contribute to efficient and results-based management? Was there clarity in the functions and roles of each member? What were the main challenges related to the management and administration of the Project? What were the causes and results of the changes made in the Project team?	☐	☐		
Has the committed co-financing materialized as planned? What difficulties have you identified? Have any delays in co-financing been detrimental to the technical execution of the project? Have additional resources been leveraged in addition to those planned?	☐			
Were there delays in the financial and technical execution? What are the causes of these delays? Was there a capacity to solve eventual inconveniences?	☐			
Did the mechanisms, institutional arrangements and technical and financial management procedures contribute to the achievement of the project's results and objectives? What elements would you highlight? What aspects would you reinforce?	☐	☐	☐	
What are the factors that influenced the implementation costs you identify?	☐	☐		

Safeguards	**EP**	**FP**	**FE**	**BE**
In your opinion, did the Project take into account environmental and social concerns in the design and implementation?	□	□	□	□
Have the social, cultural and institutional particularities of the beneficiaries been incorporated into the design and implementation of actions? Have methodologies been adapted to address these particularities?	□	□	□	□
Genre	**EP**	**FP**	**FE**	**BE**
To what extent did the Project contribute to the gender equality seal indicators for the Country Office?	□	□	□	□
To what extent did the Project contribute to the GEF gender objectives (state the objectives)?	□			
Was there a strategy to ensure the inclusion of the gender dimension from the design or other specific actions to include the gender perspective?	□	□		
How did the Project ensure parity in participation and representation in planning and implementation for the benefit of women?	□	□		
What has been the participation and representation of women in the planning, training and implementation of project activities? Have the conditions (appropriate time and space, childcare facilities, etc.) been in place to facilitate women's participation? of women in the Project's actions?	□			
How has the Project supported women to take on leadership roles and actively participate?	□			□
What could have been done to improve the participation of women in the Project, both in leadership positions and as beneficiaries?	□			□
How did the project contribute to the empowerment of women (focus on management and/or positions of responsibility, changes in power relations between men and women)?	□	□		□
Implementation and execution functions	**EP**	**FP**	**FE**	**BE**
To what extent has UNDP managed the day-to-day activities of the Project, provided oversight, guidance and support (technical, administrative and operational) during the Project's implementation cycle? Was such accompaniment timely? What aspects would you highlight? What elements could be improved?	□	□	□	
Have the MATTE and MEM complied with the responsibilities related to the co-execution of the Project? Do you identify any difficulties or obstacles (internal and external) that may have affected the co-execution of the Project?	□	□	□	
Monitoring and evaluation	**EP**	**FP**	**FE**	**BE**
Did the Project develop an M&E system? Did the M&E system collect information in a systematic way, using appropriate methodologies? Did the EMS contribute to better management of the Project? Did the M&E system facilitate the technical and operational management of the Project? Was the budget allocated for M&E system tasks adequate? What are the strengths and weaknesses of the system?	□			

and weaknesses you identify in the M&E system?				
Stakeholder participation	**EP**	**FP**	**FE**	**BE**
How would you rate the participation of partners and beneficiaries during the Project cycle? What are the participation mechanisms? Do all partners continue to work on the project?	□		□	□
What could have been improved in terms of quality, level of stakeholder involvement and coordination to make the project more successful (think design and implementation)?	□		□	□
Have other stakeholders, such as academia, research centers, civil society or the private sector been involved in the design and/or implementation of the Project? How would you qualify these involvements? Please comment on any positive or negative aspects you detected.	□	□	□	□
What level of involvement did your institution in particular have? Would you have preferred a greater involvement? Do you consider that the Project activities contributed in any way to the strengthening of your institution?			□	□
Knowledge management and communication	**EP**	**FP**	**FE**	**BE**
How effective has the project been in communicating and promoting the project's objectives, progress, results and key messages to its partners, stakeholders and the general public? What could have been done better in the area of communication and training? knowledge management?	□	□	□	□
In terms of knowledge management, what aspects would you have improved or highlighted?	□	□	□	□
Sustainability	**EP**	**FP**	**FE**	**BE**
Have actions been taken to ensure the sustainability of the initiative? Which ones, are you satisfied, would you propose something different?	□	□	□	□
What activities and effects generated by the Project will be maintained once the accompaniment ceases?	□	□	□	□
What activities and effects generated by the Project will NOT be maintained once the accompaniment ceases? Why?	□	□	□	□
Does it identify risks that could jeopardize the sustainability of the initiative? How have the identified risks and mitigation measures been managed?	□	□	□	□
Have local stakeholders/beneficiaries appropriated the good practices learned during the project?	□	□	□	□
Do you consider that there are institutional conditions in the State to continue with the processes promoted by the Project?	□	□	□	□
Is there the institutional capacity of the State (national, regional and local) to replicate the capacities and practices developed through the project in other contexts? What is the likelihood that the project will be replicated in other national contexts?	□	□	□	□

Appendix 4. Evaluation matrix

Criterion: Quality of project design

Question 1. Is the Program's design and logical framework of quality and does it follow the structure and components required by UNDP and GEF?

Dimension	Evaluation sub-questions	Indicators/Judgment Criteria	Methods	Sources
Design	*Sub-question 1.1 Does* the project document have the minimum components required by the GEF and UNDP?	**Judgment criteria** • Inclusion of components required by GEF and UNDP • Depth and quality of each of the Prodoc sections. **Indicators** • Discussion in Prodoc of national, provincial and local interests, problems and priorities in the management of chemical substances and their linkage with the Project's strategy. • Identification of barriers, assumptions and strategies to overcome them (ToC) • Inclusion of strategies to achieve gender equality and women's empowerment and implement social and environmental safeguards. • Lessons learned from other projects • Identification of risks and mitigation measures • Level of stakeholder participation • Description of management arrangements	Documentation review	**Secondary sources** • Prodoc / Results matrix • RMT
Design	*Sub-question 1.2* Is the Project's intervention logic coherent and clear? To what extent are the Project's objectives and components clear, practicable and feasible in the time period envisaged?	**Judgment criteria** • Internal consistency of the project design **Indicators** • Quality Indicators and objectives (SMART) • Level of coherence of the vertical and horizontal logic of the Project. • Feasibility of project execution considering time, resources and stakeholders involved. • Assessment of the project design by the project team and other stakeholders.	Documentation review	**Secondary sources** • Prodoc / Results matrix • RMT

Criterion: Strategic relevance/relevance

Question 2 To what extent does the project respond to the GEF operational program, UNDP strategies and country priorities?

Dimension	Evaluation sub-questions	Indicators/Judgment Criteria	Methods	Sources
Design and execution	*Subquestion 2.1* Are the execution, design and results of the Project aligned with the priorities of the Ecuadorian State, MATTE and MEM?	**Judgment Criteria:** ● Alignment of Prodoc and Project reports with declarations and agreements signed by Ecuador in the area of chemicals management. ● Level of coherence of the design and execution of the Project with the priorities and policies of the Ecuadorian State in environmental, health protection and chemicals management matters. **Indicators:** ● Presence of a justification in the project design that refers to the priorities of the Ecuadorian State and its institutions at the national, regional and local levels. ● Alignment of the actions implemented and products achieved with the priorities of the Ecuadorian State. ● Presence of a justification in the design of the Project that makes reference to the declarations and agreements subscribed by Ecuador. ● Incorporation in the Project's Prodoc of products and results aligned with the declarations and agreements subscribed by Ecuador. ● Key players' perception of the evaluation.	Documentation review	**Secondary Sources:** ● Prodoc ● PIR ● RMT ● Agreement of Stockholm Convention on Persistent Organic Pollutants ● Minamata Convention on Mercury ● Ministerial agreements and resolutions ● MATTE and MEM strategic planning ● National plans, sectoral programs and other public policies ● Others **Primary Sources:** ● Project Team ● UNDP staff ● Partner Organizations
Design and execution	*Subquestion 2.2* Is the project design and implementation consistent with GEF operational and programmatic strategies?	**Judgment Criteria:** ● Consistency of the Prodoc and Project reports with the GEF-6 Chemicals and Waste Focal Area. **Indicators:** ● Presence of a justification in the Project design that refers to the GEF-6 chemicals and waste strategies. ● Incorporation of outputs and outcomes aligned with GEF-6 priorities in the Project's Prodoc.	Documentation review	**Secondary Sources:** ● Prodoc ● PIR ● RMT ● GEF-6 Strategy **Primary Sources:** ● Project Team ● UNDP staff ● Partner Organizations ● Focal point GEF Ecuador

Design and execution	*Subquestion 2.3* Is the project consistent with the UNDP Strategic Plan at the national level in particular and the United Nations System (UNS) in general?	**Judgment Criteria:** ● Alignment, alignment and contribution of project design and implementation with UNDP and UNS strategic frameworks. **Indicators:** ● Incorporation in the Prodoc of the results project and a description of the mechanisms to contribute to UNDP and UNS priorities. ● Assessment of the project's actions and results in terms of its contribution to the achievement of UNDP priorities, the SDGs and the UNS in Ecuador. ● Assessment of Project staff and stakeholders in addressing key UNDP chemical management priorities.	Documentation review Interviews	**Secondary Sources:** ● Prodoc ● PIR/PPR ● RMT ● Strategic Plans 2022-2025 and 2018 - 2021 and of UNDP Ecuador. ● UNDAF ● 2030 Agenda for Sustainable Development ● Others **Primary Sources:** ● Project Team ● UNDP staff

Criterion: Consistency

Question 3 How well is the intervention harmonized with other interventions implemented by the implementing agency and other institutions?

Dimension	Evaluation sub-questions	Indicators/Judgment Criteria	Methods	Sources
Design, execution and results	*Subquestion 3.1 To* what extent have the project activities been complemented with with other existing interventions in the country?	**Judgment Criteria:** • Relevance, timeliness and harmonization of the synergies generated. **Indicators:** • Quantity, quality and effects of possible alliances with other existing initiatives in the country. • Level of effect scaling as a consequence of the complementarity relationships generated. • Contribution to complementary relationships to the efficiency, effectiveness and sustainability of the project. • Evidence of agreements to leverage synergies, alliances and partnerships. • Perception of key agents of the evaluation of the alliances generated.	Documentation review Interviews *On-site* observation	**Secondary Sources:** • Prodoc • PIR • RMT • Documents that support the alliances generated. • Others **Primary Sources:** • Project Team • UNDP staff • Partner Organizations • Beneficiaries • GADs • Focal point GEF Ecuador

Criterion: Effectiveness

Question 4 To what extent have the expected results and objectives of the project been achieved?

Size	Subquestions ev aluation subquestions	Indicators/Judgment Criteria	Methods	Sources
Results	*Subquestion 4.1* To what extent did Project implementation contribute to protecting human health and the environment from the impact of harmful chemicals, particularly Persistent Organic Pollutants (POPs) and mercury?	**Judgment Criteria:** • Contribution of the Project to the protection of human health and the environment from the impact of harmful chemicals. • **Indicators:** • Degree to which barriers have been overcome, sufficiency in addressing the causes and materialization of the assumptions set forth in the Project ToC. • Level of compliance with the Project's objective indicators. • Degree of effectiveness of the products and the four outcomes of the Program to improve the adoption of environmentally sound management and life cycle management of chemicals in Ecuador. • Taxation of the implementation of the 4 components to the Project's objective. • Assessment of beneficiary stakeholders, government officials and authorities, project team and UNDP, partner organizations and others.	Review of documentation Interviews Observation *In situ*	**Secondary Sources:** • Prodoc/ Results Matrix/ToC • PIR • RMT • Consulting reports • Technical Documents • Initial diagnostics, baseline • Product verification sources • M&E system reports • Others **Primary Sources:** • Project Team • UNDP staff • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Others
Results	*Sub-question 4.2* Component 1: To what extent have the capacities and the legal and regulatory framework for the Sound Management of Chemicals (SMC) based on a Life Cycle Approach been strengthened?	**Judgment Criteria:** • Contribution of the capacities strengthened by the Project to the Rational Management of Chemicals (RQM) based on a Life Cycle Approach. **Indicators:** • Degree of overcoming barriers, sufficiency in addressing the causes and materialization of the assumptions set forth in the Project ToC. • Level of implementation of activities, development, quality and timeliness of outputs associated with component 1 • Compliance with outcome 1 indicators • Adequacy and contribution of public policy instruments (tools, regulations, incentives, plans, etc.) developed for the Sound Management of Chemicals (SMC) based on a Life Cycle Approach. • Sufficiency and mobility of individual, institutional and environmental capacities strengthened for the adoption of the promoted approach. • Assessment (positive or negative) of stakeholders with respect to the strengthened capabilities.	Review of documentation Interviews	**Secondary Sources:** • Prodoc /Results matrix /ToC • PIR • Tools for the management of processed chemicals • Training modules and materials • National plans developed • Proposed incentives • Materialized ministerial agreements • Other sources of product verification • M&E system reports **Primary Sources:** • Project Team • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Others

Results	*Subquestion 4.3* Component 2: To what extent has progress been made in eliminating stockpiles and reducing the use and release of POPs?	**Judgment Criteria:** • Project contribution to the elimination of stockpiles and reduction of POPs use and release. **Indicators:** • Degree of overcoming barriers, sufficiency in addressing the causes and materialization of the assumptions set forth in the Project ToC. • Level of implementation of activities, development, quality and timeliness of outputs associated with component 2 • Compliance with outcome 2 indicators • Effectiveness of actions aimed at reducing POPs deployed by the Project (transport, inventory, cleanup, remediation, evaluation, analysis, others). • Stakeholder assessment (positive or negative)	Review of documentation Interviews Observation *in situ*	**Secondary Sources:** • Prodoc /Results matrix /ToC • PIR • Tools for the management of processed chemicals • Training modules and materials • National plans developed • Proposed incentives • Materialized ministerial agreements • Other sources of product verification • M&E system reports **Primary Sources:** • Project Team • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Others
Results	*Subquestion 4.4* Component 3. Have the measures for the reduction and elimination of Hg from priority sectors been implemented and what changes have they generated?	**Judgment Criteria:** • Changes in the reduction and elimination of Hg from priority sectors generated by the Project. **Indicators:** • Degree of overcoming barriers, sufficiency in addressing the causes and materialization of the assumptions set forth in the Project ToC. • Level of implementation of activities, development, quality and timeliness of outputs associated with component 3 • Compliance with outcome 3 indicators • Status of progress and appropriation of the promoted practices by the beneficiaries. • Effectiveness of actions aimed at reducing and eliminating Hg deployed by the Project (support to processing plants, cost-benefit analysis, evaluations, list of alternatives, incentive mechanisms, others). • Effectiveness and demonstrative capacity of pilot initiatives implemented in Hg reduction. • Contribution of the training provided to the adoption of practices aimed at reducing and/or eliminating mercury. • Stakeholder assessment (positive or negative)	Review of documentation Interviews Observation *in situ*	**Secondary Sources:** • Prodoc /Results matrix /ToC • PIR • Cost-benefit study • Modules. Training materials and memories, • Evaluations performed • Proposed incentives • Systematization of pilot results • Other sources of product verification • M&E system reports **Primary Sources:** • Project Team • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Others
Results	*Subquestion 4.5* Component 4. To what extent do stakeholders are 4. To what extent have stakeholders been sensitized to the risks of chemical use and the importance of moving towards Sound Management of Chemicals (SMC) based on a Cycle Approach (CCA)? of Life?	**Judgment Criteria:** • Contribution of the Project's communications to raising awareness of the risks of chemical use. **Indicators:** • Degree of overcoming barriers, sufficiency in addressing the causes and materialization of the assumptions set forth in the Project ToC. • Level of execution of activities, development, quality and timeliness of outputs associated with component 4 • Compliance with outcome 4 indicators • Stakeholder ownership of the messages deployed by the Project.	Review of documentation Interviews	**Secondary Sources:** • Prodoc /Results matrix /ToC • PIR • Communication materials and products (• Other sources of product verification • M&E system reports **Primary Sources:** • Project Team • Partner organizations • Beneficiaries

		• Stakeholder assessment (positive or negative)		• Authorities and officials of the GADs

Criterion: Efficiency

Question 5 Was the project implemented efficiently, in accordance with international and national norms and standards?

Dimension	Evaluation sub-questions	Indicators/Judgment Criteria	Methods	Sources
Results and implementation	*Sub-question 5.1* Have the technical and financial management mechanisms, institutional arrangements and procedures contributed to or hindered the timely and quality achievement of project results and objectives?	**Judgment Criteria:** • Adequacy of the mechanisms, institutional arrangements, processes, and technical and operational procedures in place. **Indicators:** • Favorable and unfavorable elements of the execution/implementation mode • Functionality, adequacy and efficiency of UNDP's coordination mechanisms with MATTE and MEM • Leveraging agreements, initiatives, data sources, existing synergies and complementarities with other projects and institutions. • Perception of the managers and partner institutions regarding the operation and usefulness of the Project management. • Appropriation of the implemented procedures by the project personnel. • Assessment and level of ownership by project personnel of the procedures implemented. • Possible adjustments made to mechanisms and procedures implemented.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR/ • Financial reporting • POAs • Budgets. • Letters of agreement **Primary Sources:** • Project Team • UNDP staff • Partner organizations • Others
Results	*Sub-question 5.2* Have human, financial and operational resources been available, sufficient and appropriate to implement the project strategy on time and with quality?	**Judgment Criteria:** • Timeliness and adequacy of the human and financial resources available. **Indicators:** • Comparison between resources, outputs-results and deadlines. • Relationship between the resources made available (human, financial, technical and operational), the results and products generated and the time spent. • Perception of managers and partner institutions regarding the availability and timeliness of financial and human resources.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR • Financial reporting • POAs • Budgets. **Primary Sources:** • Project Team • UNDP staff • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Others

Implementation	*Sub-question 5.3.* Has the expected co-financing materialized, and how has the level of materialization of co-financing - lower or higher than expected - affected the project results?	**Judgment Criteria:** • Contribution of co-financing to the results and objectives of the Project. **Indicators:** • Co-financing committed and materialized. • Amount of additional resources contributed and/or leveraged by the Project. • Evidence of committed and materialized funding. • Deficiencies and successes in the management of the Project's co-financing. • Existence of supporting documentation • Effects of possible shortfalls in co-financing.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR • Letters of commitment • Supporting documents for co-financing • GEF co-financing policy **Primary Sources:** • Project Team • UNDP staff • Partner organizations

Criterion: Sustainability

To what extent are there economic, institutional, socio-political and/or environmental risks to sustaining project results over the long term?

Dimension	Evaluation sub-questions	Indicators / Judgment Criteria	Methods	Sources
Results	*Subquestion 6.1* Is there willingness and commitment from national, regional and local institutions to give continuity to the project and its approach once funding ceases? Is there ownership among beneficiaries?	**Judgment criteria:** • Appropriation and willingness of government officials and authorities at the national, provincial and local levels, private institutions and beneficiaries of the skills, knowledge and practices promoted within the framework of the Project. • Institutionalization through public policy instruments. • Factors that condition sustainability. • Probability of scaling up and autonomous replication of the practices, policies and capacities promoted by the project. **Indicators:** • Establishment of financial and economic instruments and mechanisms to guarantee the continuous flow of benefits. • Generation and incorporation of frameworks, policies, standards, guidelines or other lessons learned documents that support governance after project closure. • Existence of institutionalized mechanisms to promote the processes promoted by the Project. • Evidence of willingness and commitment of the authorities at the national, regional and local levels. • Evidence of scaling up and/or replication with peers and/or related stakeholders of the capabilities developed. • Signs of transformational changes with potential for durability. • Willingness and ability to respond on the part of authorities and government officials. • Opinion of the key agents regarding the institutional will and commitment to the continuity of the Project.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR • RMT • Public policies, regulations, plans, laws, • Others **Primary Sources:** • Project Team • UNDP staff • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Other interested parties.
Results	*Subquestion 6.2* What are the risks that could affect the sustainability of the Project's achievements and impacts?	**Judgment Criteria:** • Existence of external and internal risks that could compromise the sustainability and valuation of its mitigation measures. **Indicators:** • Evidence of financial, socioeconomic, environmental, institutional and governance risks. • Mitigation measures designed and implemented to contribute to the sustainability.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR • Others **Primary Sources:** • Project Team • UNDP staff • Partner organizations • Beneficiaries

		• Systematic identification of risks by the project team and measures to minimize them.		• Authorities and officials of the GADs • Other interested parties.

Criterion: Gender

Question 7 How did the project contribute to gender equality and women's empowerment?

Dimension	Evaluation sub-questions	Indicators / Judgment Criteria	Methods	Sources
Design, implementation and results	*Subquestion 7.1* Has the effective participation of women and an equitable distribution between men and women been ensured? Has female empowerment and gap reduction been promoted during project design and implementation?	**Judgment Criteria:** • Systematic integration of the gender approach during the project cycle. • Changes in favor of closing gender gaps **Indicators:** • Contribution of the project to the gender equality seal indicators for the Country Office • Existence of a diagnosis and a gender responsive strategy for the Project. • Existence and assessment of measures to achieve gender equality in the design and implementation of the Project. • Measures for the effective participation of women in project activities. • Degree of equal participation by gender in the phases of the Project. • Assessment of the Project stakeholders on the incorporation of the gender approach. • Opinion of beneficiaries regarding the incorporation of a gender-responsive approach in the design and implementation of the Project.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR • UNDP and GEF gender equality policies. • UNDP Gender Equality Seal • Project gender strategy and monitoring of the instrument. • Records of information disaggregated by gender and by age • Others **Primary sources** • Project Team • UNDP staff • Partner organizations • Beneficiaries • Authorities and officials of the GADs • Other stakeholders

Criterion: Environmental and social safeguards.

Question 8 Have the necessary safeguards been taken during the design and implementation of the Program?

Dimension	Evaluation sub-questions	Indicators / Judgment Criteria	Methods	Sources
Design and implementation	*Subquestion 8.1* To what extent have environmental and social issues been taken into account in the design and implementation of the Project? Were the necessary measures taken to avoid negatively affecting the communities and habitats where the Program intervened?	**Judgment Criteria:** • The Project has taken care not to generate harmful impacts on the societies and habitats where it operates. **Indicators:** • Identification of environmental and social risks of the project. • Equivalence of measures adopted with the assigned risk rating. • Strategies for addressing environmental and social issues during project implementation. • Actions adapted to safeguard the environmental and cultural heritage. • Level of participation in the design of the project in order to incorporate the social, cultural and institutional particularities of the beneficiaries.	Documentation review Interviews	**Secondary Sources:** • Prodoc • PIR • GEF Safeguard Policy • Others **Primary sources** • Project Team • UNDP staff • Partner organizations

		• Existence of capacities and procedures to ensure that project implementation does not cause harmful effects on the habitats and communities where it intervenes. • Degree to which the approach methodologies are adapted to the local dynamics of the territories.		• Beneficiaries • Authorities and officials of the GADs • Other stakeholders

Criterion: Implementation and execution functions

Question 10 To what extent have UNDP, MAATE and MEM exercised their roles and assumed their responsibilities as implementing agency and executing entities respectively?

Dimension	Evaluation sub-questions	Indicators / Judgment Criteria	Methods	Sources
Design and Implementation	*Sub-question 10.1 To* what extent has UNDP exercised its role as implementing agency by providing implementing agency by providing supervision, guidance, accompaniment and support (technical, administrative and operational) during the during the identification, formulation formulation, approval, initiation and implementation of the Project?	**Judgment Criteria:** ● Quality and timeliness of implementation functions **Indicators:** ● Degree of compliance with responsibilities and performance of the executing agency. ● Evidence of weaknesses and strengths in the programmatic and financial management of the Project. ● Perception of project managers regarding the functioning and usefulness of UNDP's supervision and technical and administrative support. ● Evidence of satisfaction with the timeliness and quality of UNDP's role. ● Difficulties and successes in technical and operational support mechanisms. ● Evidence of capacity building actions for the management of project execution mechanisms and procedures.	Documentation review Interviews	**Secondary Sources:** ● Prodoc ● PIR ● GEF/UNDP Policies and Manuals ● Others **Primary Sources:** ● Project Team ● UNDP staff ● Partner organizations
Design and Implementation	*Subquestion 10.2* To what extent have MATTE and MEM, as executing agencies, fulfilled their roles and responsibilities with the Project?	**Judgment Criteria:** ● Quality and timeliness of execution functions. **Indicators:** ● Degree of compliance with responsibilities and performance of commitments acquired as a co-executing institution. ● Functionality, adequacy, timeliness, efficiency and effectiveness of MATTE and MEM coordination mechanisms with UNDP. ● Perception of project managers and other stakeholders regarding the functioning and usefulness of the project's management and administration, as well as the project's governance and oversight bodies. governance.	Documentation review Interviews	**Secondary Sources:** ● Prodoc ● PIR ● GEF/UNDP Policies and Manuals **Primary Sources:** ● Project Team ● UNDP staff ● Partner organizations

Criterion: Stakeholder participation

Question 11. Have other stakeholders - such as civil society, indigenous people or the private sector - been involved in the design or implementation of the project; how is the level and quality of participation and involvement of partners, key counterparts and other stakeholders assessed?

Dimension	Evaluation sub-questions	Indicators / Judgment Criteria	Methods	Sources
Design and Implementation	*Subquestion 11.1* Have other stakeholders -such as civil society, indigenous people or the private sector- participated in the design or implementation of the project; how is the level and quality of participation and involvement of partners, key counterparts and other stakeholders assessed?	**Judgment Criteria:** ● Quality and timeliness of involvement of partners and other stakeholders, as well as potentially involved parties, who were not involved. **Indicators:** ● Number of government institutions, non-governmental organizations, companies or association of companies, local communities, and other parties that have participated in the formulation and implementation of the project. ● Evidence of participation mechanisms. ● Design and implementation of coordination mechanisms. ● Assessment of key institutional agents and beneficiaries regarding participation in the different stages of the Project cycle.	Documentation review Interviews	**Secondary Sources:** ● Prodoc ● RMT ● PIR/PPR ● GEF/UNDP Guidelines ● Workshop or meeting reports ● Minutes of agreement **Primary Sources:** ● Project Team ● UNDP staff ● Partner organizations ● Beneficiaries ● Authorities and officials of the GADs ● Other stakeholders

Criterion: Monitoring and evaluation

Question 12 Has M&E contributed to improve the management and accountability of the Program?

Dimension	Evaluation sub-questions	Indicators / Judgment Criteria	Methods	Sources
	Subquestion 12.1 Has the M&E plan and its implementation been efficient and contributed to the management and accountability of the project? Has the information from the M&E system been used appropriately to make timely decisions and promote learning during project implementation?	**Judgment Criteria:** ● M&E quality ● Usefulness and contribution of M&E to project management and accountability **Indicators:** ● Existence and quality of a project monitoring, follow-up and knowledge management plan and system. ● Adequacy of M&E mechanisms for operational, strategic and management decision-making. ● Evidence of an M&E system and plan. ● Systematization of information with appropriate levels of disaggregation. ● Targets and indicators appropriate to the project objectives ● The M&E system allows for the dissemination of learning and access to timely and quality information.	Documentation review Interviews	**Secondary Sources:** ● Prodoc ● MML ● PIR ● SME ● Publications ● GEF and UNDP Policies and Manuals **Primary Sources:** ● Project Team ● UNDP staff ● Partner organizations

		• Assessment of the monitoring mechanisms and tools generated and implemented during the project. • Stakeholders' perception of the functioning of internal accountability mechanisms.		

Appendix 5. Co-financing table

Source of Cofinancing	*Name of co-funding entity*	*Type of co-financing*	*Confirmed quantity at date of CEO approval (US$)*	*Amount actually contributed as of December 31, 2023 (US$)*	*Actual percentage with respect to expected co-funding*
Government	MAATE (includes former SENAGUA)	In Kind; recurrent expeditures	$12,707,056	**2,210,367.37**	56%
Government	MAATE (includes former SENAGUA)	In kind; investment mobilized	$3,297,485	**6,757,510.69**	
Government	MERNNNR (including ex-Min. Electricity)	In Kind; recurrent expeditures	$12,972,276	**$7,256,177**	291%
Government	MERNNNR (including ex-Min. Electricity)	In kind; investment mobilized	$0	**$30,529,372**	
Government	MSP	In Kind; recurrent expeditures	$4,797,818	**$5,139,271**	107%
Government	Agrocalidad	In Kind; recurrent expeditures	$1,453,220	**$871,932**	60%
Government	Other entities: (Min.Productividad, INEN, Min Sectores estratégicos)	In Kind; recurrent expeditures	$1,412,325	-	0%
Private	APCSA	In Kind; recurrent expeditures	$1,245,478	**$402,771**	32%
Private	INNOVAGRO	In Kind; recurrent expeditures	$1,185,770	**$1,020,074**	86%
Private	COMMUNITY SOLUTIONS SEF CANADA LTD. CLEAN GOLD	N/A	$1,500,000	-	0%
Private	UN Page	Grant	$0	**$92,000**	100%
Private	COMPANIES RESPONSIBLE FOR OBSOLETE PESTICIDES (warehousing, transportation, conditioning)	Grant	$0	**$9,700**	100%
Private	MFC Projects	In kind; investment mobilized	$0	**$ 511,198.07**	100%
Private	Jardin Azuayo Savings and Credit Cooperative	Other	$0	**$40,000**	100%
Private	Ingenio Valdez	Other	$0	**$8,000,000**	100%
		Total private	**$3,931,248**	**$9,564,545**	**243%**
		Total Government	**$36,640,180**	**$52,764,630**	**144%**
		Total cofinancing	**$40,571,428**	**$62,329,175**	**154%**

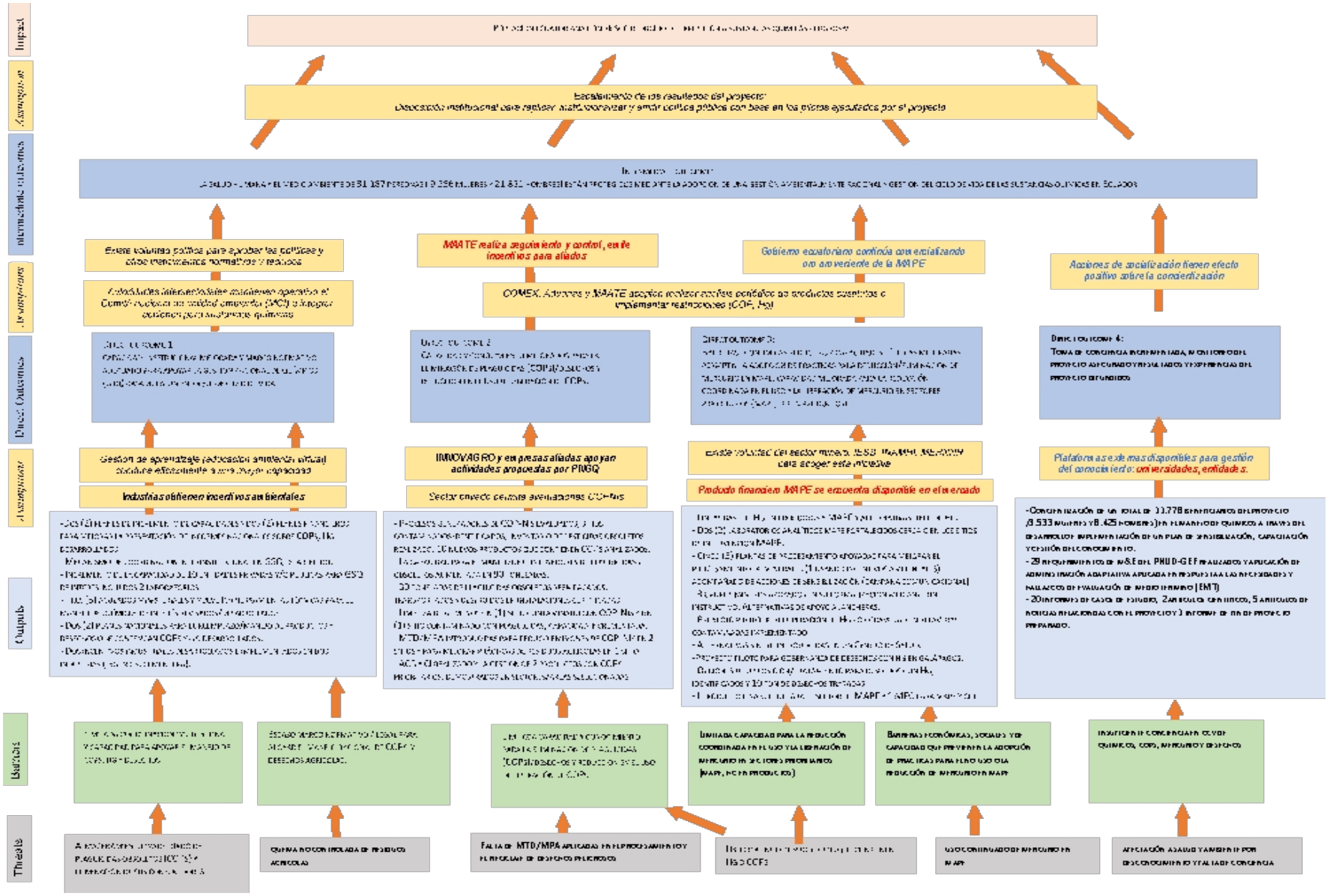
Appendix 6. Evaluation assessment table

Monitoring and evaluation (M&E)	Rating	Brief comments
Start-up M&E design	S	The Project designed and implemented a Monitoring and Evaluation System (SME) tailored to the initiative's monitoring and accountability needs. It maintained an orderly repository that allows easy access to the sources of verification associated with the indicators and products developed.
Implementation of the M&E Plan	S	
Overall M&E quality	**S**	
Implementation and execution	Rating	Brief comments
Quality of UNDP implementation/monitoring	S	UNDP as the implementing agency has successfully accompanied the identification, preparation of the idea, formulation, implementation of the Project and coordinated both the RMT and this evaluation.
Quality of implementation of the implementation partner	S	The Project's day-to-day activities have been managed in accordance with the agreements established with the partners. Accountability, use of funds, procurement and contracting have generally been carried out in a timely manner and with the due probity and transparency
Overall quality of implementation/execution	**S**	
Evaluation of results	Rating	Brief comments
Strategic relevance	AS	The design and execution of the Project responded to the global priorities and strategic guidelines of UNDP, the GEF, the 2030 Agenda and the Ecuadorian State.
Effectiveness	S	All of the project's performance indicators are reported as achieved and in some cases far exceeded. Products were developed that allowed progress to be made in overcoming barriers, achieving results and contribute to the desired impact.
- Component 1	S	As a result of the implementation of the Project, the individual capabilities, The institutional and environmental framework for the Sound Management of Chemicals has been strengthened.
- Component 2	S	The Project proposal was effective in its contribution to eliminating stockpiles and reducing the use of POPs.
- Component 3	S	The strategies developed and products produced by the Project resulted in the reduction and elimination of mercury in priority sectors other than mining. As a result of the implementation of the Project, access to financing has improved, confidence has increased and sales volumes of miners have increased. to beneficiation plants using mercury-free technologies.
- Component 4	S	Awareness has been raised and the importance of improving chemicals management in Ecuador has been placed on the public agenda.
Efficiency	S	The financial resources provided by the GEF were sufficient to form a quality team, execute the planned activities and achieve the outputs committed in the Prodoc. The project suffered justified delays in its implementation. The requested extension was adjusted to the time needed to achieve the technical and financial execution of the project. financially 100% of the planned
Assessment of overall project results	**S**	
Sustainability	Rating	Brief comments
Financial resources	MY	While at the sectoral and technical level there is a willingness and commitment to sustain the initiative once funding ceases, at the central level the priorities are different. The crisis facing the country has led to a focus on increasing public spending on security. If this situation continues, MAATE's human and material resources, which are already insufficient to sustain the Project's strategy, will at best be maintained during this period. In addition to the institutional and financial risks, there are political risks. In 2025 there will again be general elections in the country, and, as is natural, there will likely be updates to the priorities of the Ecuadorian state.
Sociopolitics	MY	
Institutional framework and governance	MP	
Environmental	P	There are no risks that could jeopardize the environmental sustainability of the Project.
Overall probability of sustainability	**MY**	

Rating scales

Assessment of results: effectiveness, efficiency, M&E, implementation, execution and relevance.
- Highly satisfactory (AS): exceeds expectations and/or no deficiencies - Satisfactory (S): meets expectations and/or there are no or minimal deficiencies. - Moderately satisfactory (MS): more or less meets expectations and/or there are some deficiencies. - Moderately unsatisfactory (MI): in some sense below expectations and/or there are significant deficiencies - Unsatisfactory (I): considerably below expectations and/or there are significant significant - Highly unsatisfactory (AI): there are serious deficiencies. - Could not be evaluated (NE): the available information does not allow for an evaluation.
Sustainability ratings
- Probable (P): negligible risks to sustainability - Moderately Probable (MP): moderate risks to sustainability - Moderately improbable (MI): significant risks to sustainability - Unlikely (U): serious risks to sustainability - Could not be assessed (NE): The expected impact and magnitude of sustainability risks could not be assessed.

Appendix 7. Theory of Change Proposed by the Project



Appendix 8. Alliances generated by the Project

Type of agreement	Type of ally	Partner/Beneficiary (Entity/Institution) n)	Objective of the agreement
Interinstitutional cooperation agreement	Public	Ministry of Energy and Non-Renewable Natural Resources (now Ministry of Energy and Mines), Institute of Geological and Mining Research (Instituto de Investigación Geológica y Energy (IIGE)	Comply with the commitments acquired by the country as a signatory of the Minamata and Stockholm Conventions and make the activities of the PNGQ viable through joint actions between MAATE and MERNNNR. The IIGE, an entity attached to MERNNNR, is competent and specialized in testing mineral samples to report the presence of metals (gold, silver, copper, mercury, etc.) and is considered a beneficiary and strategic partner for the development of mercury reduction activities.
Memorandum of understanding signed with UNDP	Private	APPROVE: Association of Chemical Producers of Ecuador	Disseminate the environmentally sound management of chemicals in Ecuador to companies (APROQUE members and non-members) that carry out any of the phases of integrated management of chemicals to minimize the risks and negative effects of the management or industrial activity. of chemicals on the environment and health.
Low-value grant agreement	Non-governmental organization at	Heifer Foundation - "Union y Progress"	Contribute to the food security of the families that are linked to AJUP. Contribute to the socio-organizational strengthening of AJUP and its technical and managerial capacities. financially for new ventures.
Memorandum and letter of agreement between UNDP and PASF	Public	MAATE's Amazonía Sin Fuego Program	Implement the "Integral Fire Management Schools" project in coordination with the Fire-Free Amazon Program.
Low-value grant agreement	Civil society organization	Asociación de Producción Artesanal Orfeoro, Orfebrería de El Oro ASORF	Contribute to the improvement of income and welfare of the families of artisanal miners in the canton of Portovelo through the implementation of a goldsmithing enterprise using the raw materials of artisanal miners and the design and implementation of a plan of action to improve the quality of life of the families of artisanal miners. strengthening of ASORF and the goldsmith's business.
Project approval letters of the fund mechanism contestable	Academy	National Polytechnic School	To implement the project called "Development of systems of natural biofiltration for the removal of mercury and trace elements in rivers impacted by gold mining", postulated by the National Polytechnic School (EPN).
Project approval letters from the competitive fund mechanism	Academy	National Polytechnic School	Implement the project called "Alternatives for the treatment of water pollution from artisanal mining: the case of Río Siete, Cantón Ponce Enríquez, Azuay" with intervention in the canton of Camilo Ponce Enríquez, province of Azuay, in alliance with the Bella Rica Cooperative and the Bonanza Mining Group, whose Project Director is José Luis Rivera Parra (Ph.D. in Biology), being the focal point for the necessary coordination for its implementation.
Memorandum of understanding signed with UNDP	Public	National Institute of Meteorology and Hydrology INAMHI	Strengthen the analytical capabilities of INAMHI's LANCAS National Laboratory for Water and Sediment Quality with respect to the implementation and validation of analytical methods for dioxins and furans.
Memorandum of understanding signed with UNDP	Private	Metallurgical Chemical Laboratory JV METALS	Strengthen ore analysis laboratories to enable and assist in the implementation of the ore sales strategy to reduce the use of mercury in the processing of raw materials by artisanal and small-scale miners. small scale.

Memorandum of understanding signed with UNDP	Private	Mining metallurgical laboratory GOLDENLAB	Strengthen ore analysis laboratories to enable and assist in the implementation of the ore sales strategy to reduce the use of mercury in the processing of raw materials by artisanal and small-scale miners. small scale.
Memorandum of understanding signed with UNDP	Private	INNOVAGRO: Ecuadorian Chamber of the Agricultural Innovation and Technology Industry	Articulate actions to improve environmentally sound management and promote awareness of the final disposal of empty pesticide containers, in order to prevent the generation of hazardous waste and reduce pollution and the negative impact on the environment and health. of the populations close to the agricultural sector.
Low-value grant agreement	Non-governmental organization	Heifer Foundation-Association of producers "Consumamos lo Consumamos lo Our"	Contribute to the reduction in the use of pesticides on San Cristobal Island, favoring the conservation of local natural and anthropogenic ecosystems through agricultural production with the application of principles and practices of sustainable agriculture. agroecological school.
Memorandum of understanding signed with UNDP	Private	EMICOR Mining Company	Strengthen ore processing plants to enable and assist in the implementation of the ore sales strategy to reduce the use of mercury in the processing of raw materials by artisanal and small-scale miners. small scale.
Memorandum of understanding signed with UNDP	Private	EYMEN CORPORATION Mining Company	Strengthen ore processing plants to enable and assist in the implementation of the ore sales strategy to reduce the use of mercury in the processing of raw materials by artisanal and small-scale miners. small scale.
Memorandum of understanding signed with UNDP	Private	NUEVA UNIÓN Mining Company	Strengthen ore processing plants to enable and assist in the implementation of the ore sales strategy to reduce the use of mercury in the processing of raw materials by artisanal and small-scale miners. small scale.
Low-value grant agreement	Non-governmental organization at	Heifer Foundation - "Union y Progress"	Contribute to the reduction of polluting practices of artisanal mining in the Ponce Enriquez Canton, through the strengthening of productive agricultural and livestock activities. sustainable.
Memorandum and letter of agreement between UNDP and ABG	Public	Agency for Biosafety and Biosecurity and Quarantine Control for Galapagos (ABG)	Include ABG as a relevant stakeholder and direct beneficiary of the PNGQ in order to establish a framework for non-profit cooperation. to facilitate and strengthen collaboration between the two parties in accordance with UNDP's commitment in to carry out the pertinent administrative steps to make effective the purchase and transfer of ownership of the equipment called gas chromatograph with inputs to increase the installed capacity of our plant. laboratory in production monitoring and analysis agricultural and livestock production in Galapagos.
Interinstitutional cooperation agreement	Public	Ministry of Environment, Water and Ecological Transition, the Ministry of Energy and Mines, the Central Bank of Ecuador and the Ministry of Energy and Mines. BanEcuador	Establish joint activities so that, within the scope of their competencies and powers, the parties involved coordinate actions to ensure that economic agents authorized by the ECB to trade gold from small-scale and artisanal mining have access to preferential credit from BanEcuador, thus promoting and fostering the non-monetary gold trading with the ECB...
Memorandum of understanding signed with UNDP	Academy	Technical University of Manabí	Articulate actions that improve the environmentally sound management of hazardous chemical substances and promote awareness of the management of these substances, including pesticides and the final disposal of their wastes, in order to reduce pollution and the negative impact generated on the environment and on the health of the populations near the sources of production and use of these substances, including the agricultural sector.

Letter of agreement	Academy	CETESB Empresa Ambiental do Estado de Sao Paulo Regional Center for the Stockholm Convention on POPs, for the Americas Region Latin America and the Caribbean,	Apoio da CETESB para o Laboratório Nacional de Qualidade das Águas e Sedimentos do Equador no strengthening of capacities in POPs analysis. In response to MAATE's letter in which it expressed its interest in receiving advice from CETESB, CETESB responded by means of a document, its interest in supporting INAMHI and its analytical laboratory in the implementation of the dioxin and furan analysis method, by means of the knowledge transfer.

Appendix 9. List of instruments developed

Year	Policy, regulation and/or standard document generated:
2023	National POPs product substitution plan
2023	National Hg product substitution plan
2023	Best Available Techniques (BAT) and Best Environmental Practices (BEP) Guide for Toner Cartridge Management
2023	Best Available Techniques (BAT) and Best Environmental Practices (BEP) Guidance for PFOA products with emphasis on cookware
2023	Best Available Techniques (BAT) and Best Environmental Practices (BEP) Guide for insect baits with sulfluramid
2023	Registry of Waste and Hazardous Waste Generator for REP of lamps integrated and updated in the SITEAA environmental information system.
2023	Prototype mockups designed for the integrated management plan approval system
2023	Integrated fire management guide for sugar mills.
2023	Guide for the adequate management of COPNIs (summarized).
2023	Step-by-step manual for the management of mining wastes of sterile material by basic recyclers in the special regime of small metal mining.
2022	Technical Guide to the Green Dot REA mechanism for the environmentally sound management of POPs
2022	Didactic guide on alternatives to the use of fire in agricultural practices, which is available in Spanish and Kichwa.
2022	Technical study for the establishment of fees for the operation of the municipal landfill in the canton of La Libertad.
2022	Instructions for the application of extended producer responsibility in the integral management of disused discharge lamps and LED lamps.
2022	Instructions for the integrated management of mining wastes of sterile material by basic recyclers in the special regime of small metal mining.
2021	Technical guide on best environmental practices (BEP) and best available techniques (BAT) for the main productive sectors that generate unintentional persistent organic pollutants (POPs) in Ecuador.
2021	Guidance for the management of mercury-added products
2021	Guide for proper pesticide management
2021	Guidance on the identification, management and remediation of pesticide-contaminated sites
2021	TSA analysis for artisanal and small-scale mining.
2021	AM environmental incentives for reduction of POPs. Ministerial Agreement No. 2021-37
2021	Proposed ministerial agreement for hazardous, non-hazardous and special waste incineration
2021	Proposed ministerial agreement for the location, design, construction, operation, closure and abandonment of a safety landfill.
2020	Proposed rules of procedure for the National Environmental Quality Committee
2019	Proposed modification/update of Ministerial Agreement 099 of the Ministry of Environment: Instructions for the registration of substances hazardous chemicals and environmental obligations

2019	Articulated for the Integral Management of Chemical Substances, Wastes, Hazardous and Special Wastes incorporated in the Regulations to the Organic Environmental Code (RCOA)
2019	Proposed Reformed Ministerial Agreement for the institutional framework of environmental incentives.

Annexes

Annex 1. Evaluation Terms of Reference

Programa de las Naciones Unidas para el Desarrollo

Términos de Referencia de la Evaluación final (TE)

1. INTRODUCCIÓN

De acuerdo con las políticas y los procedimientos de Seguimiento y Evaluación (SyE) del Programa de las Naciones Unidas para el Desarrollo (PNUD) y del Fondo para el Medio Ambiente Mundial (FMAM), todos los proyectos de tamaño mediano y ordinarios respaldados por el PNUD y financiados por el FMAM deben someterse a una evaluación final una vez finalizada la ejecución.

Estos términos de referencia (TdR) establecen las expectativas de una evaluación final de un proyecto *ordinario* titulado "*Programa Nacional para la Gestión Ambientalmente Racional y la Gestión en el Ciclo de Vida de Sustancias Químicas" (N.º del PIMS: 5706)* implementado a través de *PNUD Ecuador/Ministerio de Ambiente, Agua y Transición Ecológica (MAATE)*. El proyecto comenzó el *22 de marzo de 2018* y está en su *sexto (6)* año de implementación. La evaluación final se realizará según se establece en la "Guía para realizar evaluaciones terminales de proyectos respaldados por el PNUD y financiados por el FMAM" (https://erc.undp.org/pdf/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf I).

Para la evaluación final se considerará también la contribución del proyecto a los indicadores del sello de igualdad de género para la Oficina de País, cuya matriz se encuentra anexa al presente documento (Anexo I).

2. ANTECEDENTES Y CONTEXTO DEL PROYECTO

El objetivo del proyecto es proteger la salud humana y el ambiente del impacto de químicos nocivos, en particular de Contaminantes Orgánicos Persistentes (COP) y mercurio (Hg). El proyecto apunta a lograr la reducción de la liberación de dichos químicos, mediante cuatro componentes principales: 1) Fortalecimiento de la capacidad nacional e institucional y el marco legal y regulatorio para una Gestión Racional de Químicos (GRQ) basada en un Enfoque de Ciclo-de-Vida, entrenando a 706 personas (212 mujeres y 494 hombres); incrementando la capacidad de 12 instituciones privadas y públicas y, revisión/desarrollo de 16 reglamentos, regulaciones y estándares. 2) Eliminar las existencias de pesticidas obsoletos (COP) en 30 toneladas, incrementar a 90 toneladas la eliminación racional de los envases vacíos de pesticidas; reducir el uso de nuevos COP contenidos en los productos (en 30 toneladas); y, reducir la liberación de COP producidos involuntariamente (COPNI) (en 25 g-TEQ/año). 3) Reducir el uso y liberación de mercurio producto de la Minería Artesanal y de Pequeña Escala de oro (MAPE) a nivel no industrial (un total de 2 toneladas) y productos que contengan mercurio (35 kg / año). 4) Sensibilizar a 11.778 personas (3.533 mujeres y 8.245 hombres) sobre la gestión racional de los químicos en su Gestión de ciclo-de-vida, asegurando la supervisión del proyecto y la difusión de sus resultados y experiencias.

Se espera que el proyecto tenga un total de 31.187 beneficiarios directos (9.356 mujeres y 21.831 hombres) para quienes, el riesgo de químicos y desechos peligrosos se habrá reducido al finalizar el mismo.

El área de intervención de los componentes relacionados con Plaguicidas, COP en productos, COPNIs, Hg en productos comprende a todo el territorio nacional, mientras que el componente

related to artisanal and small-scale mining (ASM) focused on the cantons of Camilo Ponce Enriquez and Portovelo in the provinces of Azuay and El Oro, respectively.

The project was initially planned to have a duration of 60 *months. However, due to delays generated in the implementation, mainly in the start-up of the project (delay of 5 months), the impact of the pandemic (COVID19) and institutional instability in the country, among other causes, an extension of 16 additional months was requested, which was approved in November* 2022, *setting the new completion date for the project for July* 2024.

The lead implementing partner is the Ministry of Environment, Water and Ecological Transition (MAATE) and the responsible partner is the Ministry of Energy and Mines (MEM). The two ministries changed names during project implementation. The implementing agency is UNDP and the donor is the Global Environment Facility (GEF). The highest authority of the project is the Steering Committee or Project Board, which is made up of one person delegated as a focal point from each of the first three entities mentioned above, who has a voice and vote in decision-making. The operational focal point of the GEF is the International Cooperation Directorate of MAATE.

The total cost of the project is USD 49,066,428. 428, *of which USD* 8,490,000 *corresponds to the GEF grant and USD 40,571,428 in parallel co-financing.*

The project has gender marker GEN1 (activities that will contribute in some way to gender equality, but not significantly), and has a gender strategy implemented during project execution, which is linked to the results matrix.

The terminal evaluation of the project will be carried out with the main project stakeholders: Ministry of Environment, Water and Ecological Transition, Ministry of Energy and Mines *and the United Nations Development Program. In addition, other central government institutions, decentralized autonomous governments (GAD) at different scales, private sector, civil society and academia, which are detailed in Table No.1 as a reference for the interviews that will guide the evaluation.*

The project is fully aligned with the country's commitments under the Stockholm (POPs) and Minamata *(Hg) Conventions. The project results contribute to UNDAF Outcome 4/Country Program Outcome: "By 2018, support will be provided to strengthen citizen and institutional capacities to promote the rights of nature, create conditions for sustainable development, and enhance resilience and risk management to the impacts of climate change and natural and man-made disasters". Similarly, the project contributes to UNDP Strategic Plan Outcome 1.3:* "So/otions *developed at national and sub-national levels for the sustainable management of natural resources, ecosystem services, chemicals and wastes".*

The project work plan has been adapting to social factors related to insecurity, especially in the ASM intervention area, and to political factors derived f r o m changes in government (in the years 202a *and* 2023a) *and, consequently, to the change of authorities in the partner ministries. These external factors have a direct influence on the evaluation, since at the start of this process, there could be a change of authorities. For this reason, in the present*

The document considers relevant interviews to be those persons who have or had the role of focal point and/or *who are or were involved during the implementation process, regardless of their permanence in public office at the time of the evaluation.*

3. PURPOSE OF THE FINAL EVALUATION

The final evaluation report will assess the achievement of project results against what was expected to be achieved, and draw lessons that can improve the sustainability of the benefits of this project, as well as help improve overall UNDP programming. The final evaluation report promotes accountability and transparency, and assesses the extent of the project's achievements.

In addition, the synthesis of lessons learned contributes to improving the selection, design and implementation of GEF-funded initiatives supported by UNDP; assessing and documenting project results and their contribution to the achievement of GEF's strategic objectives for global environmental benefits; and measuring the degree of project convergence with other priorities within the UNDP country program and country development objectives as mentioned in the previous section.

This final independent evaluation (FE) is part of the planned evaluations of the UNDP Country Program Document, it has been assessed to be strategic and relevant as it takes place once all project results and activities are completed and information and data are available to carry it out. The FE has an emphasis on lessons learned and aims to assess and evaluate implementation and results, identify successes in order to create replicability and actions needed for consolidation and sustainability of results. This includes the contribution. The FE report will be reviewed by the Project Board and will be approved by the UNDP Country Office and the UNDP-GEF Regional Technical Advisor. The FE report will be publicly available in English at the UNDP Evaluation Resource Center.

Users of the report will be donors, government and project partners and may also include potential new project partners and representatives of the Minamata and *Stockholm Conventions, since the project's actions were framed as contributing to the environmentally sound management of chemicals in their life cycle, contributing to the fulfillment of the country's commitments to the aforementioned international conventions and among other global and country-specific environmental goals. The results of the final evaluation will be used by the project's Board of Directors to provide management responses that will help consolidate the project's results, increase the probability of impact and improve the design of future projects.*

4. TERMINAL EVALUATION APPROACH AND METHOD

The evaluation should provide empirical information that is credible, reliable and useful.

The final evaluation team will review all relevant sources of information, including documents developed during the preparation phase (i.e. FIP, UNDP Inception Plan, UNDP SESP), the project document, project reports, including annual APRs, project budget reviews, lessons learned reports, national strategic and legal documents, and any other material the team deems useful.

for this evidence-based evaluation. The FE team will review the GEF Action Area Monitoring Tool at the start of the project submitted to the GEF with CEO approval, the Mid-Term Monitoring Tool and the Final Monitoring Tool to be completed before the final evaluation field mission begins.

The final evaluation team is expected to adopt a participatory and consultative approach that ensures close collaboration with the project team, government counterparts (the GEF Operational Focal Point), implementing partners, UNDP country offices, the Regional Technical Advisor, direct beneficiaries and other stakeholders.

Stakeholder engagement is critical to the success of the final assessment. Stakeholder engagement should include interviews with stakeholders with responsibilities for the project, including, but not limited to, Ministry *of Environment, Water and Ecological Transition, Ministry of Energy and* Mines*, and United Nations Development Program. In addition, other central government institutions, decentralized autonomous governments (GAD) at different scales, private sector, civil society and academia. In* addition, the final evaluation professional is expected to carry out field missions in 6 *cities,* including the following project sites

Tablo 1. Proposed missions / Interviews during the Evoiuoción Ptnota'.

No.	Duration in dfas	Institution / Actor	Role of the actor	City/Province	Number of meetings	Interview or field visit
1	Day 1	UNDP:CO,RTA /Cornitédirectivo	UNDP: United Nations imple me mation, office country and RTA. Steering Committee: Maximum authority of the project formed by MAATE, MEM and UNDP	Qu ito - Pch incha Prov ince	4	E nt re view
2	Day 2	PNGQ Project Team	1 Coordinator and 8 Technicians make up the project implementation team.	Quito - Province of Pichincha	1	Interview
3		MEM	Partner, part res ponsa ble in the Hg-related: ASM and Hg products.		1	E nt re view
4		ECB	Institution benefiting from *The* project's management related to ASM: training, credit products for ASM.		1	E nt magazine

[1] This proposal, as well as the sites will be reviewed and defined at the first meeting for the initial evaluation report. Dates and locations are referential.

No.	Duration in dfas	Institution / Actor	Role of the actor	City/Province	Number of meetings	Interview or field visit
5		MAATE	Partner, Leader of implementation.		2	Interview
6		GEF Focal Point	Directorate of Cooperation MAATE International, liaison with GEF.		1	Interview
7	Day 3	IESS	Institution benefiting from the management carried out by the project with regard to podudosconHg: training, waste disposal, etc. with Hg.	Quito - Province of Pichincha	1	Interview
8		UCE	Institution benefiting from the project's management of Hg products: training		1	Interview
9		EMICOR (processing plant)	The company would benefit from the project's efforts to eliminate mercury in ASM.		1	Panto view. Interview
10	Day 4	ASORF	Goldsmith Association, beneficiary of the competitive funding mechanism: installation of a goldsmith's workshop, training, contribution to the empowerment	Portovelo - El Oro	1	Visit to a goldsmith's workshop. Interview.
11	Day 5	Associations of women mineral collectors (jancheras)	Women's Association jancheras, beneficiary of several actions of the project: competitive fund mechanism, visibility of the women's issues in mining, support for training, contribution to the empowerment...	Machala - El Oro	1	Interview.

United Nations Development Programme

No.	**Duration** in dfas	Institution /Actor	Role of the actor	City/Province	**Number of** meetings	**Interview or** Field Vblta
12	Dia6	Ingenio Valdez	Beneficiary company in: Recognition environmental, COPNI MPA/MTD implementation	Milagro -Guayas	1	Plantation visit. Interview
13	Day 7	INNOVAGRO	Beneficiary organization in: strengthening of collection centers through the delivery of equipment for pesticide container management, Allies of the Environment Campaign, training.	Guayaquil - Guayas	1	Interview
14	Dia8	Consultants independent	Diana Salazar and David Coello, conducted the training in GAD Santa Cruz: COPNI, POP products, and others.	Santa Cruz - Galapagos	1	Interview
15		GAD Santa Cruz	Governing authority beneficiary of the project in: training, delivery of an incinerator, and others.		1	Visit to the center recycling. or incinerator installation site. Interview
16		ABG	Biosafety Agency with competence in the local area, beneficiary of the project in: training, delivery of a gas chromatograph, contribution to the Aliados del Ambiente campaign and in charge of collecting pesticide containers in Galapagos.		1	Laboratory visit. Interview
17	Day 9	Heifer Foundation	NGO that implemented two CBM projects: Food security with the Jancheras Association in Camilo. Ponce Enriquez, Azuay.	Santa Cruz - Galapagos	1	Interview

No.	Duration in dfas	Institution / Actor	Role of the actor	City/Province	Number of meetings	Interview or field visit
			Reduction in the use of pesticides with Asociación Consumamos lo Nuestro in San Cristóbal, Galapagos			
18	Day 10	Mission headquarters	NA	Return to Quito	0	

Table No. 2 **shows a summary table of the internal mobilizations** to be carried out by the respondent in order to consider the travel costs of each city in his/her financial proposal:

Table 2. Summary of mobilizations

Section	City of origin	City of destination	Type of transport	Days
1	Quito	Quito: partner offices	Terrestrial	3
2	Quito	Portovelo (Santa Rosa airport, E' Oro prov.) Internal mobilization	Air and ground	1
	Portovelo	Machala (Prov. El Oro)	Terrestrial	1
3	Portovelo	Milagro (Guayas Prov.)	Terrestrial	1
4	Milagro	Guayaquil (Guayas Prov.)	Terrestrial	1
5	Guayaquil	Santa Cruz (Galapagos Prov.)	Aerial	2
6	Santa Cruz	Quito (rno challenge)	Aerial	1

The specific design and methodology of the terminal evaluation should emerge from consultations between the terminal evaluation team and the above parties on what is appropriate and feasible to meet the purpose and objectives of the terminal evaluation and answer the evaluation questions, given budget, time and data constraints. However, the terminal evaluation team should use gender-sensitive methodologies and tools and ensure that gender equality and women's empowerment, as well as other cross-cutting issues and the SDGs, are incorporated into the terminal evaluation report.

The final methodological approach, including the interview schedule, field visits and data to be used in the evaluation, should be outlined in the inception report.

The final evaluation should be discussed and fully agreed upon by UNDP, stakeholders and the final evaluation team.

The final report should fully describe the final evaluation approach adopted and the rationale for that approach, making explicit the underlying assumptions, challenges, strengths and weaknesses of the methods (qualitative, quantitative and/or mixed) and the evaluation approach.

5. DETAILED SCOPE OF THE FINAL EVALUATION

The final evaluation will assess the performance of the project against the expectations set out in the project's Logical Framework/Results Framework (see annex A of the ToR). The final evaluation will assess the results according to the criteria described in the Guide to Final Evaluations for UNDP-supported projects with GEF funding https://erc.undp.org/pdf/TE_GuidanceforUNDP-supportedGEF-financedProjects.pdf). The Findings section of the final evaluation report should be evidence-based and will cover the topics listed below.

A complete summary of the contents of the final evaluation report is presented in Annex C of the ToR.

The asterisk "(*)" indicates criteria for which an assessment is required (see Table 2).

Conclusions

i. Project design/formulation

- National priorities and country momentum
- Theory of change
- Gender equality and women's empowerment
- Social and environmental safeguards
- Analysis of the Results Framework: project logic and strategy, indicators, etc.
- Assumptions and risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design
- Planned stakeholder involvement
- Linkages between the project and other interventions in the sector
- Management provisions

ii. Project implementation

- Adaptive management (changes in project design and deliverables during implementation)
- Effective stakeholder engagement and partnership arrangements
- Project financing and co-financing
- Monitoring and evaluation: initial design (*), implementation (*), overall evaluation of M&E (*)

- Implementing Agency (UNDP) (*) and Executing Agency (*), overall supervision/implementation and execution of the project (*)
- Risk management, including Social and Environmental Standards

iii. Project results

- The final evaluation report should individually assess the achievement of results against the indicators, and report on the level of progress of each objective and result indicator at the time of the final evaluation, while noting the final achievements.
- Relevance (*), effectiveness (*), efficiency (*) and overall project outcome (*)
- Sustainability: economic(*), sociopolitical(*), institutional framework and governance(*), environmental(*), general probability of sustainability(')
- national application
- gender equality and women's empowerment
- Cross-cutting issues (poverty reduction, improved governance, climate change mitigation and adaptation, disaster prevention and recovery, human rights, capacity building, South-South cooperation, knowledge management, volunteerism, etc., as appropriate).
- GEF Additionality
- Catalytic function/replication effect
- Progress towards impact

Main findings, conclusions, recommendations and lessons learned

- The final evaluation team will include a summary of the main findings of the final evaluation report. The conclusions should be presented as statements of fact based on the analysis of the quantitative and qualitative information gathered by the consultant.
- The section on conclusions should be written based on the results. Conclusions should be complete and balanced statements that are well supported by evidence and logically related to the findings of the final evaluation. They should highlight the strengths, weaknesses and results of the project, answer key evaluation questions, and provide information on the identification and/or solutions to important problems or issues relevant to the project beneficiaries, UNDP and GEF, including issues related to gender equality and women's empowerment.
- Recommendations should provide concrete, practical, feasible and specific recommendations addressed to the intended users of the assessment on actions to be taken and decisions to be made. The recommendations should be specifically supported by evidence and linked to the findings and conclusions around the key issues addressed in the evaluation. In other words, there should be linkages between the findings, conclusions and recommendations.

- The final evaluation report should also include lessons that can be taken from the evaluation, including best and worst practices to address issues related to relevance, performance and success, which can provide insights gained from the particular circumstance (programming and evaluation methods used, partnerships, financial leverage, etc.) This applies to other GEF and UNDP interventions. Where possible, the final evaluation team should include examples of good practice in project design and implementation.
- It is important that the conclusions, recommendations and lessons learned of the final evaluation report include findings related to gender equality and women's empowerment.

The final evaluation report will h a v e a table of evaluation ratings, as shown below:

Table 2 **of the Terms** of **Reference: Table** of Evaluation **Ratings** of the *National Program for* **Environmentally** *Sound* Management *and* **Management** in the Environment. *Life Cycle* zfe **Chemicals:**

Seguimiento y evaluación (SyE)	Calificación[2]
Start-up M&E design	
Implementation of the M&E Plan	
Overall M&E quality	
l m olementa ego n and ejectio n	
Quality of UNDP implementation/monitoring	
Quality of implementation of the implementation partner	
Overall quality of implementation/execution	
Evaluación de resultados	Calificación
Relevance	
Effectiveness	
Efficiency	
Evaluation of the results generated by the project	
wI iffifirl	ef˚1-nnaisi-ia
Financial resources	
Sociopolitics	
Institutional framework[and governance	
Environmental	
Overall probability of sustainability	

6. CHRONOGRAM

Results, effectiveness, efficiency, M&E, I&E performance, and relevance are rated on a scale of 6 points: 6 = Highly satisfactory (AS), 5 = Satisfactory (S), 4 = Moderately satisfactory (MS), 3 = Moderately unsatisfactory (MI), 2 = Unsatisfactory (I), 1 = Highly unsatisfactory (AI). Sustainability is rated on a 4-point scale: 4 = Probable (P), 3 = Moderately probable (MP), 2 = Moderately improbable (MI), 1 = Improbable (I).

The total duration of the final evaluation will be approximately (53 *working days* over a period *of 17 weeks* starting *January* 22*, 2024*. The tentative final evaluation schedule is as follows:

	ET lmm
(*January* 22, 2024a	Signing of contract
(January 22-26, 2009) 2024 *5 working days*	Period of preparation of the final evaluation team (delivery of the final evaluation report) documents)
(*January* 29 *to January 9 february* 2024a f0 *working days*	Review and preparation of documents for the initial report of the final evaluation
(February 14 to 29*, 2009)* 2024 f2 *working days*	Validation of the initial report by the Project *Outcome 1:* Deliver the Initial Final Evaluation Report
(March 1-13, 2009) 2024) *9 working days*	Final evaluation mission: meetings with stakeholders, interviews, field visits, etc.
(March 14, 2024a *1 working day*	Preparation for the mission closing meeting
(March 15, 2024a *1 working day*	Closing meeting of the mission and presentation of findings initials *Result* 2: Presentation
(March 18 to March 5) April 2024) *13 working days*	Preparation of the draft final evaluation report *Output* 3: Draft Final Evaluation Report
April 8 to 11, 2024 *4 working days*	First review of the project report report.
April 12 to 18 *5 working days*	First review of the report by the UNDP Area of environment.
April 19 to 25 *5 working days*	Incorporation of comments generated by the project on the report of the final evaluation by the consultant
(*April* 26 *to May* 2 *from* 2024 to 5 *working days*	Distribution of draft final evaluation report for comments by the Tentative Steering Committee a brief introductory meeting to facilitate the review.
(May 6-19, 2009) 2024) *5 working days*	Incorporation of comments on the final evaluation report of the project in the audit history and finalization of the final evaluation report *Result 4:* Final report of the final evaluation* + History of audit, in Spanish
(May 7, 2024a *1 working day*	Preparation and communication of management's responses (in charge of of the PNGQ)
(May 8, 2024a *1 working day*	Steering committee meeting to present the main findings, conclusions and recommendations by the consultant. The project will present management responses (with their respective key actions). The Steering Committee shall approve the final evaluation report and the management responses.

(May 9 to 14, 2009) *2024)* *4 working days*	Expected date of completion of the final evaluation. *Output* 5: Final evaluation report* + CD-approved audit history, in **English**

Field visit options should be provided in the final evaluation inception report. The dates given are for reference only.

7. SPECIFIC RESULTS OF THE FINAL EVALUATION

N.	Result is closed	Description	Deadline	Responsa bi ltda des
1	Initial report of the evaluation end	The team of the final evaluation clarifies the objectives, the methodology and time frame of the final evaluation	Not later than 2 weeks before the mission of the final evaluation: *(no later than* 29 *of February* 2024	The team of the final evaluation sends the initial report to the unit in charge and to the project management
2	Presentation	Findings initials	Completion of the mission of the final evaluation: *(a no later than 15 March* 2024th, 2024th, 2024th, 2024th, 2024th, 2024th	The team of the final evaluation presents to the unit and to the project management
3	Project of report of final evaluation	Draft Report complete *(using the guidelines on the content of the report of Annex C of the ToR)* with annexes	Within 3 years weeks since end of the mission of the evaluation final: *(at the latest April 15)*	The team of the final evaluation sends to the unit in charge; with ATR revision of the DPAP-FMAM, the Coordination Unit of Projects, the operational focus of the GEF
4	Final report of the evaluation final* + History audit, in **Spanish.**	Final report and history audit of final evaluation, in that the final evaluation details how they have been (or have not been) addressed all comments received in the report final evaluation final *(see the*	Within 1 week from the reception of comments on the project of report: *(a more* *not later than April* 2024a	The team of the final evaluation sends both documents to the responsible unit

		template in Annex H of the ToR)		
5	Final report of the evaluation final* + History of audit in **English.**	The Final Report and audit history of final evaluation approved by the Committee, translated into English.	Within 1 week from the approval of the CD: *(at the latest on May 14, 2009* 2024g	The team of the final evaluation sends both documents to the responsible unit

*The quality of all final evaluation reports will be assessed by the UNDP Independent Evaluation Office (IEO). Information on the quality assessment of decentralized evaluations conducted by IEO can be found in section 6 of the UNDP Evaluation Guidelines.[3]

8. FINAL EVALUATION PROVISIONS

The main responsibility for the management (contracting, follow-up, contact for interviews, etc.) of the final evaluation lies with the unit in charge. The unit in charge of the final evaluation of this project is *the UNDP Ecuador Office.*

The unit in charge will contract the evaluators. The project team will be responsible for liaising with the final evaluation team to provide all relevant documents, arrange stakeholder interviews and field visits.

9. PROFILE OF THE PROFESSIONAL EVALUATOR

An independent professional evaluator will conduct the final evaluation, *who will be responsible for the overall design and writing of the final evaluation report, as well as all activities required for the final evaluation.*

Evaluators must not have been involved in the preparation, formulation and/or implementation of the project (including the drafting of the project document), must not have conducted the mid-term review of this project, and must not have a conflict of interest with project-related activities.

The selection of evaluators will aim to maximize the overall qualities of the "team" in the areas indicated below:

Education

- Fourth level training (Master's degree or similar) in policy, program and project evaluation, preferably environmental, development, sustainability, chemicals or other closely related field;

Experience

[3] **Available** at: http:,web.undp.org.'"evaliotion.'"guideline.'"section-6.shtiiil

- General experience:
  - At least *10 years of* experience in relevant technical areas: final and/or mid-term evaluations of policies, programs, projects or similar, at least 2 years in South America.

- Specific experience
  - Proven experience of at least one (1) final evaluation/review of projects within the United Nations system and/or GEF (GEF), environmental, development, chemicals, sustainability or similar. Submit an evaluation report as an annex to the technical proposal.

Language

- Fluency in written and spoken English.

10. EVALUATOR'S ETHICS

The final evaluation team shall adhere to the highest ethical standards, and is required to sign a code of conduct upon acceptance of the assignment. This evaluation will be conducted in accordance with the principles outlined in the UNEG "Ethical Guidelines for Evaluations". The evaluator must protect the rights and confidentiality of information providers, interviewees and stakeholders through measures that ensure compliance with relevant legal and other codes governing data collection and reporting. The evaluator should also ensure the security of information collected before and after the evaluation, as well as protocols that ensure anonymity and confidentiality of information sources where provided for. The knowledge and information data gathered in the evaluation process should also be used exclusively for the evaluation and not for other uses without the express permission of UNDP and its partners.

11. PAYMENT SCHEDULE

- Payment of 20% upon satisfactory delivery of the initial final evaluation report and approval of the unit in charge.
- Payment of 40% upon satisfactory delivery of the final interim evaluation report to the unit in charge.
- Payment of 40% upon satisfactory delivery of the final evaluation report and approval by the unit in charge and the ATR (through signatures on the final evaluation report authorization form) and delivery of the complete final evaluation audit trail (in English and Spanish).

  Criteria for issuance of the final 40% payment[4]

[4] The commissioning unit is obliged to issue payments to the final evaluation team as soon as the terms of the ToR are met. If the terms are not met and the quality and completeness of the final deliverables are disputed, and such a dispute cannot be resolved between the commissioning unit and the final evaluation team,

- The final evaluation report includes all the requirements described in the final evaluation TOR and conforms to the final evaluation guidelines.
- The final evaluation report is clearly written, logically organized (i.e. there is consistency between findings, conclusions and recommendations) and specific to this project (i.e. the text has not been cut and pasted from other final evaluation reports).
- The audit history includes responses and justification for each comment listed.

12. APPLICATION PROCESS'.

Recommended presentation of the proposal:

a) **Letter of confirmation of interest and availability** from the template provided by UNDP;
b) **Resume and personal background form** (form P11);
c) Brief description **of the work approach/technical proposal as** to why the person is considered best suited for the job, and a methodological proposal of how he/she will approach and complete the assignment (maximum 2 pages).
d) **Financial proposal** indicating the total fixed price of the contract and all other travel-related expenses (such as airfare, per diem, etc.), supported by a cost breakdown, as per the template attached to the letter of confirmation of interest. If an applicant is employed by an organization/company/institution, and expects to be charged a management fee by his/her employer in the process of assigning him/her to UNDP under the reimbursable loan agreement, the applicant should indicate at this time, and ensure that all such costs are duly reflected in the financial proposal submitted to UNDP.

All proposals must be submitted through the QUANTUM system (http://supplier.quantum.partneragencies.org) by the date and time indicated in the solicitation publication. Requests for clarifications must be submitted through QUANTUM by the date stated in the solicitation. Interested professionals should review the Clarification Notes and/or Amendments published through QUANTUM, it is the responsibility of each offeror to be aware of updates to the process. Incomplete applications will not be considered.

Criteria for proposal evaluation: Only responsive and compliant applications will be evaluated. The applicant that receives the highest combined score and has also agreed to UNDP's General Terms and Conditions will be awarded the contract.

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the Regional M&E Advisor and Vertical Fund Management will be consulted. If necessary, senior management of the Procurement Services Unit and the Legal Support Office of the responsible unit will also be notified so that a decision can be made as to whether or not to withhold payment of amounts due to the evaluator(s), suspend or terminate the contract and/or remove the individual contractor from the appropriate lists.

"Contact with evaluators should be made in accordance with the guidelines for hiring consultants found at POPP https:,\"popp.undp.org"fi itePages.'POPPRoot.aspx

The qualification methodology for the proposals will be 30% for the resume, 40% for the technical bid, and 30% for the economic bid.

The best technical bid will be the one that obtains the highest score with respect to the following evaluation criteria:

- Resume - 30%.
- Technical bid (including work schedule) - 40%.
- Economic offer - 30%.

The candidate must submit the 3 documents mentioned above in 3 separate files.

a) Resume - 30%.

Evaluation Criteria - Resume (The resumes of the participants must present the certificates that accredit academic and work experience).	Points
Fourth level training (Master's degree or similar) in policy evaluation, programs and projects, preferably environmental, development, sustainability, chemicals or other closely related field. Meets: 25 points Does not comply: 0 points	25
Language: Fluency in written and spoken English. Presents evidence of fluency (test or similar)	5
At least 10 years' experience in relevant technical areas: evaluaóones final and/or mid-term of policies, programs, projects or similar, at least 2 years in South America. 0 to 1 year of experience - 10 points More than 1 year and up to 7 years of experience - 20 points More than 7 years and up to 9 years of experience - 30 points Equal to or more than 10 years of experience - 40 points	40
Proven experience of at least one (1) final assessment/examination of projects within the United Nations system and/or GEF (GEF), environmental, development, chemicals, sustainability or similar. Submit an evaluation report as an annex to the technical proposal. 0 final evaluation/project review - 0 points 1 final evaluation/project review - 30 points	30
Total Weighting	100

b) Technical bid (including work schedule) - 40%.

Technical Bid Evaluation **Criteria**	Evauation

To what extent does the Offeror understand the nature of the work? Has the Offeror been Is the scope of work well defined and does it comply with the ToR?	25
Have the relevant aspects of the work been developed to a high level? enough detail?	25
Is the methodology established to achieve the objectives described in depth? products defined in the consultancy?	25
Has a proposal been made, and is the sequence of Does it lead to an efficient implementation of the system?	25

c) Economic Bid - 30%.

The highest score (30%) will be awarded to the most economical bid and the proportional inverse to the other bids. Only the technical bids that meet the minimum required score (70%) will go on to the economic evaluation.
*Mobilization, lodging and food expenses incurred by the consultancy shall be included in the value of the economic proposal.
* The costs of workshops and/or coordination and work meetings with the stakeholders must be assumed by the contracted person and presented in the economic offer.

BIDDER'S LETTER AND COST BREAKDOWN6				
A. COST BREAKDOWN, which support the final all-inclusive price				
ITEM	INDICATOR UNIT OF **MEASURE (DAY/GLOBAL/UNIT)**	QUANTITY	COST **UNIT**	**TOTAL,** FOR THE **DURATION** FROM **CONTRACT**
Personal Costs	**GLOBAL**			
Fees Professionals	Effective days - consultant			
Internet-Platform for video calls	Monthly			
Travel to the place of destination				
Quito: offices of sOciOs	Terrestrial			

Costs must cover only the requirements identified in the TOR.

Portovelo (airport Santa Rosa, prov. El Oro) Internal mobilization	Air and ground			
Machala (Prov. El	Terrestrial			
Milagro (Prov. Guayas)	Terrestrial			
Guayaquil (Prov. Guayas)	Terrestrial			
Santa Cruz (Prov. Galapagos)	Aerial			
Quito (return)	Aerial			
Other expenses				
Medical insurance	Monthly			
Office expenses, Prints	Monthly			
Other (PPE, others)	Monthly			
			SUBTOTAL	
			VAT t2%.	
			TOTAL	

Annex 2. Code of Conduct Agreement Form

The Evaluators:

1. They must present complete and fair information in their evaluation of strengths and weaknesses, so that the decisions or measures taken have a good basis.
2. They should disclose all assessment results along with information about their limitations, and allow access to this information to all those affected by the assessment who have express legal rights to receive the results.
3. They should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize time demands, and respect the right of individuals not to participate. Evaluators should respect the right of individuals to provide information confidentially and should ensure that confidential information cannot be traced back to its source. They are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
4. Occasionally, they must disclose evidence of transgressions when conducting evaluations. Such cases should be reported discreetly to the relevant investigative body. Evaluators should consult with other relevant oversight bodies when there is doubt as to whether and how certain issues should be reported.
5. They should be sensitive to beliefs, manners and customs, and act with integrity and honesty in dealings with all stakeholders. In accordance with the UN Universal Declaration of Human Rights, evaluators should be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-esteem of those with whom they come into contact during the course of the evaluation. Because they know that the evaluation could adversely affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate the purpose and results in a manner that clearly respects the dignity and self-worth of the stakeholders.
6. Are accountable for their performance and products. They are responsible for the clear, accurate and fair presentation, orally or in writing, of study limitations, results and recommendations.
7. They should reflect sound descriptive procedures and be prudent in the use of the resources of the evaluation.

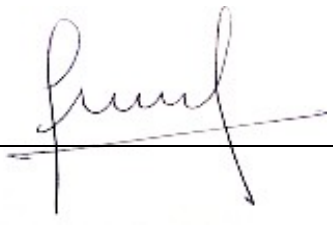
Evaluation consultant agreement form:

Agreement to abide by the Code of Conduct for Evaluation in the United Nations System Name of Consultant: **German Luebert Bruron**

Name of the consulting organization (where applicable):

I confirm that I have received, understand and will abide by the United Nations Code of Conduct for Evaluation.

Signed in **Quito, on April 15, 2024.**



Annex 3. Final Evaluation Report Authorization Form

Final Evaluation Report for the *National Program for Environmentally Sound Management and Life Cycle Management of Chemicals (UNDP Project PIMS No. 5706)*

Reviewed and authorized by:

Name:

Signature:

Date:

Regional Technical Advisor (Nature, climate and energy)

Name:

Signat
ure:

Date: