



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET



**Final Report for the Midterm Review of Project 00100857:
“Asuncion Green City of the Americas – Pathways to Sustainability”**

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San José, Costa Rica, June 2020.

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ACRONYMS AND ABBREVIATIONS

AMA	Asunción Metropolitan Area
BOD	Biochemical Oxygen Demand
BRT	Bus Rapid Transit – BRT
COD	Chemical Oxygen Demand
POPs	Persistent Organic Pollutants
UNFCCC	United Nations Framework Convention on Climate Change
MDC	Municipal Development Council
DMH	Directorate of Meteorology and Hydrology
ERC	Evaluation Resource Center
Gg	Gigagrams
CH ₄	Methane
FEDEM	Federation of Neighboring Entities of Paraguay
GEF	Global Environment Facility
GHG	Greenhouse Gases
IAP	Integrated Approach Program
IBA	Important Bird Area
IAPAMA	Autonomous Institute of Planning of Asunción
ICES	Sustainable Emerging Cities
ABGZ	Asunción Botanical Gardens and Zoo
OEKT	Oil Equivalent Kilotons

M&E	Monitoring and Evaluation
MIA	Minamata Convention Initial Assessments
BEP	Best Environmental Practices
MRV	Monitoring, Report and Verification
MTR	Midterm Review
MOPC	Ministry of Public Works and Communications
N ₂ O	Nitrous Oxide
NAMA	Nationally Appropriated Mitigation Action
NIM	National Implementation Mode
NIP	National Implementation Plan of the Stockholm Convention
OCHA	Office for the Coordination of Humanitarian Affairs
CSO	Civil Society Organization
MGP	Metropolitan Guazú Park
PMU	Project Management Unit
TPP	Territorial Planning Plan
SDP	Sustainable Development PLAN
PBDE	Polybrominated Diphenyl Ethers
PGCS	Global Platform of Sustainable Cities
PES	Payment for Environmental Services
PIR	Project Implementation Report
POPP	Program and Operations Policies and Procedures
POUT	Urban and Territorial Planning Plan
PPR	Project Progress Reports
DRR	Disaster Risk Reduction
RBSMyBA	Reserva Banco San Miguel and Bahía de Asunción

ROAR	Results-Oriented Annual Report
USW	Urban Solid Waste
SBAA	Standard Basic Assistance Agreement
SEAM	Secretary of Environment
SEN	National Emergency Secretary
SIAM	Environmental Information System
SINASIP	National Protected Wilderness Areas System
SNC	National Secretary of Culture
SNT	National Secretary of Tourism
STP	Technical Planning Secretary
TE	Terminal Evaluation
tCO _{2E}	Tons of Carbon Dioxide
UCCI	Unión of Capital Cities of Iberoamerica
UNDAC	United Nations Disaster Assessment and Coordination

1. EXECUTIVE SUMMARY

1.1. PROJECT INFORMATION TABLE

Project Name	"Asunción Ciudad Verde de las Américas – Vías a la Sustentabilidad"				
GEF Project ID	9127	Financial Summary	Project Document USD	Midterm Review Status USD	Midterm Review Status (%)
		Cash			
UNDP Project ID	100857	GEF	7,493,120	3,133,801	41.82%
		Total, in cash	238,164,100	Not available	-
Focal Area Objectives (GEF)	CCM-1 Program 1; BD-1 Program 1; BD-4 Program 9; CW-1 Program 2; IAP-Cities; CCM-2 Program 3;	Total in kind	2,175,900	Not available	-
Executing Agency	Ministerio del Ambiente y Desarrollo Sostenible (MADES)	Total cofinancing	240,340,000	1,498,666	0.62%
		Total project budget	247,833,120	3,066,453	1.24%
Other partners involved	MOPC, Municipalidad de Asunción, SEN, STP y MUVH	Date signature of PRODOC	12/04/2017		
Startup date PRODOC	12/04/2017	Actual start date	28/02/2018		
Date of MTR	May-June 2020	Startup date according to PRODOC	12/04/022		

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1.2. BRIEF PROJECT DESCRIPTION

Asunción has a privileged urban framework cohabited by many parks and protected areas that in turn host a high level of biodiversity. The city was named the Green Capital of the Union of Capital Cities of Iberoamerica (UCCI) precisely because of this special condition. However, these benefits are in danger of diminishing due to disorganized urban expansion without proper planning. Asunción is not exempted from this possibility as it is a city with accelerated urban growth.

The objective of the project is to improve the quality of life in the Metropolitan Area of Asunción (AMA) and generate multiple benefits for the entire population, with equality criteria, through the integration of transport, solid waste management and green infrastructure within a sustainable and disaster-resistant city framework.

The expected results of the Project and with which this objective is expected to be achieved are:

1. A functional framework for a sustainable green city in which comprehensive urban planning of the AMA is improved.
2. Sustainable mobility and transport implemented in the AMA to reduce greenhouse gas emissions from urban transport.
3. Improved waste and chemical management system to reduce emissions of GHG, UPOP and toxic chemicals.
4. Improved management of urban protected areas.
5. Dissemination of lessons learned, monitoring and evaluation.

The Project's strategy focuses on the main current urban problems such as: transport (pollution and road congestion), solid waste disposal and protection of green areas and their biodiversity. These actions will be, with the participation of the population in the process, performed under criteria of equity and inclusion.

Furthermore, the actions will be carried out through the integration of sectoral planning with defined deadlines and identified financial needs, promoting a more coherent and integrated vision for the future development of Asunción.

The actions mentioned above include the improvement of urban management of hazardous waste in order to reduce the release of greenhouse gases and chemicals; improve green area management to conserve global biodiversity values, provide services to ecosystems that contribute to greenhouse gas reduction and health-related benefits; explore cross-sectoral benefits and provide important inputs and guidance within the broader framework of a sustainable and resilient city.

The global environmental benefits, expected to be accumulated, include:

- A. 1,227,442.00 TCO₂E of mitigated and hijacked emissions through transport-oriented development, green infrastructure, and the implementation of solid waste management policy.

- B. 13.20 g of unintentional COPS TEQ emissions reduced through a waste and chemical management system.
- C. Increase in the global population (number of individuals) of 5 emblematic bird species: Playerito Canela (*Tryngites Subruficollis*), Chorlo Dorado (*Pluvialis Dominica*), Pititói Chico (*Tringa Flavipes*), Playerito de Rabadilla Blanca (*Calidris Fuscicollis*) y el Playerito Pectoral (*Calidris Melanotos*).

1.3. SUMMARY OF PROJECT PROGRESS

The Project Document was signed on April 2017 for a period of 5 years. The Project Coordinator was not contracted until the end of that year as well as the Administrator and project operations did not start until the beginning of 2018. The technicians and specialists started activities in March 2018.

In general, the project has resolved this initial delay with efficient and constant work, in conjunction with all stakeholders under a framework of working groups within the Framework of the Technical Committee.

Analysis of documentation and interviews with partner representatives show that progress in achieving results is satisfactory and except for one result is estimated to meet deadlines.

Regarding the implementation and adaptive management of the project, the goals set, and the implementation of the monitoring activities and monitoring plan have been satisfactorily met.

On the other hand, the project has had a correct and successful evolution, although there are some topics such as a plan to redesign the scope of what was originally conceived as the Metrobus Project and the operational work of managing the gancheros in the San Francisco neighborhood that need greater attention.

1.4. SUMMARY TABLE OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

1.4.1. CONCLUSIONS

- A. After analyzing the project documentation and strategy, it can be concluded that it is relevant to the country's priorities defined in Paraguay's National Development Plan 2030 and the GEF 6 Integrated and Sustainable Cities Approach initiative, and the Sustainable Development Goals (SDGs).
- B. The participation of project partners in working groups, led by technicians from the Project Management Unit, has resulted in efficient and effective work in achieving results.
- C. The implementation of the budget and the concrete commitment is something that has not been fulfilled in accordance with what is defined in the Project Document. It is partly due to a delay in the start-up of the operating part until the beginning of 2018 being the signing date of PRODOC in April 2017. Implementation has managed to scale to levels close to those expected and it is expected that in the years to come the project will be further normalized.

1.4.2. RECOMMENDATIONS

No.	Recommendation	Responsible
1	Continue to work on the institutional strengthening of government partners, especially within the framework of their role within the project, but also strengthen the spaces of collective participation, so that the integrality of the actions and the objective of the project is achieved.	PMU, UNDP
2	To lead the project always from the role that each institution has, that is, to have clarity of the responsibilities of each and above all how the sustainability of this project will be realized from the leadership of the counterparties.	PMU, CT
3	As a multi-component project, establishing in the best possible way the complementarity they have with each other and/or the importance that, as one component progresses, another component can be advanced or directed, they are not fully isolated issues.	UNDP, PMU,CT
4	Seek strategies and continue to strengthen women's empowerment and gender equity in the different project topics.	UNDP, PMU, CT (working groups)
5	Establish a clear sustainability strategy to strengthen the institutional capacities of those who are part of the project.	PMU, UNDP y Project Steering Committee
6	Financial stability must be improved with a better accounting of the co-financing contributions that have not been accounted for as of this evaluation. The percentage of fulfillment estimated is not a reliable indicator. A proper accounting system of these contributions be in kind or cash is extremely necessary.	PMU, UNDP
7	The COVID19 pandemic and isolation measures as well as economic impacts could slow the progress of certain activities planned in the 2020 AWP and possibly into the first quarter of 2021. The recommendation of this evaluation is to request an extension of the project term for a period of 18 months. This time extension will be to recover the work processes that have been delayed and will be affected by the socio-economic impacts of COVID19.	UNDP, Project Steering Committee and PMU
8	The Project Board should return to the approach to this expected Metro Bus outcome and formulate a plan consistent with the main objective of the project to continue as far as the actual budget and counterpart allow.	UNDP, Project Steering

		Committee and PMU
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1.5. MTR RATINGS AND ACHIEVEMENTS SUMMARY TABLE

Table 1. MTR Ratings and Achievements Summary

Parameter	MTR Rating	Result description
Project Strategy	N/A	
Progress towards results	Objective: Satisfactory	<p>The work of consolidating the IAPAMA is on track and has the backing of all the institutions involved.</p> <p>The city councils are weak and lack training and resources to consolidate and train their members. Training and follow-ups with MDC leaders that is about to begin will hopefully strengthen them.</p> <p>The Metrobus concept has changed to the SITIBUS. This change does not imply a modification of the strategy for the bus and bicycle routes that were originally planned.</p> <p>The Guayra Paraguay Association is working efficiently on the issues of the recovery of the habitat of the Reserve of Banco San Miguel (REBSMAyBA).</p> <p>For these reasons, this evaluation rates the overall project objective as Satisfactory.</p>
	Result 1 Satisfactory	<p>The city councils have been very weak and lack training and resources to consolidate and prepare their members. This strengthening has not yet been achieved.</p> <p>The development work of the Urban and Territorial Planning Plan (POUT) and the involvement of the relevant institutions has resulted in significant progress on this issue in general.</p> <p>Regarding the increase of municipal budgets for infrastructure, it is still at the level of proposals for actions to be taken or activities to be developed. More work is lacking on this issue, but it is real that the effects of the global pandemic could delay the achievement of this goal for some time.</p>

		<p>The issue of biodiversity conservation and green corridors has been effectively developed with very concrete achievements. For these reasons, this result is rated in general as satisfactory.</p>
	<p>Result 2 Satisfactory</p>	<p>In general, the work in the design of the Bicycle paths, the measures to improve the quality of the transport units (protocols) with the consequent reduction of GHGs is being developed appropriately.</p> <p>The change of concept from a Metrobus to rather use specific roads and electric buses is not yet clear as to the feasibility and what the necessary actions will be needed.</p> <p>The result 2 in general is rated as Satisfactory, but with an observation of MS for the implementation of multimodal transport measures for the AMA.</p>
	<p>Result 3 Moderately satisfactory</p>	<p>The awareness and training work of communal leaders, gancheros and recyclers began in January 2020 and the goals set for the mid-term have not been met.</p> <p>The pilot plan in the San Francisco neighborhood is well on track with the issuing of a letter of intent between MADES, MDN, MUVH, MCA and UNDP that has been signed but very recently. Work in this community and with this informal sector of gancheros could be delayed in its development because of the pandemic and the existence of other short-term priorities.</p> <p>It is because of this concern and because work in the field is just starting that it is described as Moderately Satisfactory for this result.</p>
	<p>Result 4: Satisfactory/Highly satisfactory</p>	<p>Agreements, clean-up activities, REBSMAYBA recovery work, and other achievements have been achieved that deserve a satisfactory assessment for this outcome. It is important to note that the work with Guayra Paraguay on the recovery of protected areas and the work of protecting biodiversity and with bird species, has received from this evaluation a rating of Highly Satisfactory.</p>
	<p>Result 5: Moderately satisfactory</p>	<p>The implementation of the budget is not at the level of 65% set for the mid-term. Execution is at 41% as of May 2020. There is no systematic accounting of the counterparts co-financing for each project year. What is available is an estimate calculated by the project team for the purposes of this evaluation.</p> <p>Since the Metrobus project was withdrawn as proposed in the Project Document and replaced by a plan with a smaller scope by the MOPC, the budget has not yet been defined.</p>

		Due to the importance of these financial management issues it is considered that this result should be rated with a Moderately Satisfactory .
Project Implementation and adaptive management	Satisfactory	The implementation of this project is somewhat complicated because of the number of institutions involved and the diversity of topics among each one of the components. The approach of managing the project through the formation of working groups by component with a project team consultant responsible for the fulfillment of each group's work plan and the relationship with each incorporated institution has been effective and efficient.
Sustainability	Likely (L)	The analysis of identified risks and those that could be presented because of the effects of the COVID19 pandemic have been assessed by rating overall sustainability as Likely (L)

2. INTRODUCTION

2.1. PURPOSE AND OBJECTIVES OF THE MIDTERM ASSESSMENT

The Country Office of the United Nations Development Program (UNDP) in Paraguay requested the mid-term evaluation of the GEF-funded project: "Asunción Ciudad Verde de las Americas - Vías a la Sustainability" (PIMS: 5188), where UNDP is the implementing agency of the GEF and the Ministry of Environment and Sustainable Development (MADES) is the project's national executing agency.

The objective of this mid-term review (MTR) is to review the performance of all activities in the project "Asunción Ciudad Verde de las Americas – Vias a la Sustainability", from the beginning of its implementation. This evaluation aims to identify the weaknesses and strengths of the design, progress in the implementation of the project, as well as to verify whether the results and products specified in the Project Document are implemented and in the process of being fulfilled. Likewise, we want to know if the project is moving towards achieving impacts on improving the quality of life in the Metropolitan Area of Asunción (AMA).

Thus, the subject matter of this evaluation work includes the following points:

- Assessing the progress in achieving results
- Monitoring implementation and adaptive management to improve outcomes
- Early identification of sustainability risks
- Assessment of gender equity applicability in project implementation
- Emphasis on constructive recommendations

The evaluation will look at the following aspects of the project:

- Project strategy and design
- Progress of the project towards expected results
- Project implementation and application of adaptive management
- Sustainability (financial, social, economic, governance, institutional and environmental risks)
- Contribution to the expected effects

The evaluation period covers a period from April 2017 to May 2020.

2.2. SCOPE AND METHODOLOGY OF EVALUATION

This evaluation will implement the methodology for mid-term assessments specified in the UNDP/GEF Project Assessment ¹ Guide.

To achieve the objective of this evaluation, the Evaluation Questions Matrix developed by the UNDP office of Paraguay and included in the terms of reference of this consultancy will be analyzed and expanded. Without prejudice to the foregoing, the various stages of the project, as well as financial and adaptive management, shall be analyzed in accordance with the following table:

Table 2. Analysis plan to be carried out

Stage	Criteria	Item to be reviewed
Design	Relevance	It is a question of verifying whether the project is included within the priorities and programs of the GEF, UNDP, national and local government agencies, in addition to the priorities of the stakeholders who will benefit from the project.
		Verify whether the project's expected products and results are in line with the magnitude of the problem, the level of funding, execution time, institutional capacities and the economic, social and political reality of the country and location of the project.
	Project indicators	Check whether the indicators set out in PRODOC meet the SMART criterion
	Implementation approach	Review of agreements and consultations with relevant stakeholders before the project was approved by the GEF.

¹ “Guía para la realización del examen de mitad de período en proyectos apoyados por el UNDP y financiados por el GEF”; dirección UNDP-GEF 2014, programa de las naciones unidas para el desarrollo, <http://web.undp.org/evaluation/guidance.shtml#handbook>

	Assumptions and risks	Analysis of the main sources of information and their accuracy, to verify that the main assumptions and risks of the project had a real basis. In this respect, baselines, stakeholder analysis and development context are essential.
	Institutional capacities	Verify if the project design analysis adequately weighs the execution capacities for each relevant stakeholder. It should also verify if the project contributes to the strengthening of the stakeholder's capacities. (Ministry of Environment and Development, STP, MOPC, SEN and Municipality of Asuncion, among others)
	Gender approach	Verify whether the project contemplates a gender approach to women's participation, equal opportunities and whether the benefits of the project are equal for men and women. If this approach does not exist, make recommendations to integrate this topic into this type of project.
	Integration	Verify if the project leveraged the experience of similar projects executed on the Global Sustainable Cities (PGCS) platform.
Execution	Use of M&E tools	Verify whether the project's logical framework was used as a management tool, whether there was a systematic M&E mechanism to make the necessary adjustments to the project, and whether there are adequate and controllable annual operational plans.
	Financing	Verify whether project budget and co-financing amounts are appropriate so that funding commitments are being fulfilled. In addition, verify the development of annual budgets and procurement standards that meet UNDP standards and whether there was monitoring of expenditures, audits and determining whether additional financing could be leveraged.
		Verify whether the M&E system had the resources to fulfill its functions. Analyze the efficiency and effectiveness of the expenses incurred. Indicate weaknesses and strengths and recommendations to improve the weaknesses found.
	UNDP Quality support	Verify for approach to results, type of support granted and the opportunity (technical and management, facilitation), quality of risk management and annual reporting and adaptation.
	Project executing agency	Verify the contingency plans, M&E, adequate risk management, annual reporting quality, national appropriation, and sustainability strategy
Stakeholder interaction	Verify the Steering Committee operation and frequency, minutes and decisions made.	

	Verify the functioning of the Technical Committee, types of decisions taken and stakeholder participation.
Adaptive management	Verify whether project management accommodates to the actual implementation context.
	Verify whether there is a review of the project and whether the proposed changes are being implemented and whether they are affecting the project results.
Results achieved	Verify whether progress is being made towards achieving project objectives (global and development), or whether it is on track to be achieved.
	Check if activities and products are being completed as planned.
	Verify if the impacts will be achieved once the Project is completed and in the long term.
National appropriation	Verify whether project results, or their activities or objectives are found in plans, programs, policies, governance regulations, and key stakeholders.
	Degree of involvement of the stakeholders in the project execution project.
Transversality	Verify if the results are in line with UNDP, GEF, national government, authorities, and local stakeholders' priorities. Income generation because of the project, poverty reduction, improved governance in the areas intervened.
Integration	Verify how the project was coordinated with other projects similar and /or complementary to the project, whether they are UNDP and that may be being implemented in the areas of intervention of the project. It will also verify for gender and minority groups (e.g. equal access to opportunities, benefits, and information). Similarly, it will verify whether there is an approach to HRDs (e.g. promotion of organizations, transparency, effective participation in decision-making and freedom of opinion).
Sustainability	Verify whether the regulatory conditions exist and financing, policies so that the results of the project can be maintained in the future.
	Verify the social, political, environmental, governance and financial risks that could be a challenge to the Project's sustainability results.
Replicability	Likelihood of replicating experience in other sectors or localities, dissemination of lessons learned

	Impacts	Verify whether progress is being made toward reaching the development goals and whether the social, environmental and biodiversity challenges of the project are being reduced
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¹ "Guide to the conduct of the mid-term review on UNDP-supported and FG-funded projects"; UNDP-GEF 2014, united nations development program, <http://web.undp.org/evaluation/guidance.handbook>

2.3. EVALUATION STRUCTURE

For the results analysis, the matrix will be prepared with the indicators, mid-term, and final project targets, which will be assessed as indicated in the UNDP Mid-Term Assessment Guide.

Table 3. Matrix of progress in achieving results

Project strategy	Indicators	Entrance level reference	Level in the 1st PIR (self-reported)	Mid-term goal	Goal at the end of the project	Mid-term level and evaluation	Rating achievements achieved	of Justification for valuation
Objective	Indicator (if applicable)							
Result 1:	Indicator 1:							
	Indicator 2:							
Result 2:	Indicator 1							
	Indicator 2:							
Etc.								

Code for the Evaluation of Indicators

GREEN = ACHIEVED	YELLOW = IN THE PROCESS OF ACHIEVING	RED = HAS NO PROGRESS TO ACHIEVEMENT
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¹ "Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program, <http://web.undp.org/evaluation/guidance.shtml#handbook>

Finally, a project rating will be made, according to the stage (design, implementation, results, sustainability), according to the scheme shown in Table No. 3.

Table 4. MTR Ratings and Achievements Summary

Parameter	MTR rating	Achievement description
Project strategy	N/a	
Progress towards results	Assessment of the degree of achievement of the objective Achievement rating: (rating with 6 pt. scale)	
	Assessment of the degree of achievement of the result 1: Achievement rating: (rating by 6 pt. scale)	
	Assessment of the degree of achievement of the result 2: Achievement rating: (rating by 6 pt. scale)	
	Assessment of the degree of achievement of the result 3: Achievement rating: (rating by 6 pt. scale)	
Project execution and adaptive management	(Rating by 6 pt. scale)	
Sustainability	(Rating by 4 pt scale)	

¹ "Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; Directorate UNDP-GEF 2014, United Nations Development Program, <http://web.undp.org/evaluation/guidance.shtml#handbook>

The MTR Evaluation Matrix, which is included in the "Guide to the Conduct of the Mid-Term Review on UNDP-supported and FG-funded Projects" will be used, see Annex 1.

Methods and procedures for collecting information; the collection of the information will be carried out in accordance with the following activities:

- I. Project documentation (AWP, reports, studies conducted, interviews, PIR, PRODOC).
- II. Context (government policies and plans, municipal plans, economic and social studies of the sectors).
- III. Integrations with other activities and Policies (similar and complementary projects under Implementation, UNDP and government Policies, municipal plans, budgets of organizations, municipalities, and Ministries to protect the BD).
- IV. Baseline and situation information with project (biodiversity status studies, monitoring and control reports, use of tracking tools, interviews).

The methodology for collecting and analyzing the information will be as follows:

- Documentary review: analysis of the project document, as well as project progress reports and other publications derived from project activities.
- Interviews with key informants: interviews will be conducted to the project team, UNDP, to the key actors: MADES, STP, SEN, CSO , Municipality of Asunción, Paraguayan Network for Sustainable Cities, Guayra Paraguay, Ministry of Environment and Development, MOPC, MUVH, Project Board, REBSMAYBA, MGP, among others that are identified during the review of the documents. (see Item 8: tentative agenda).
- Series de preguntas abiertas y semiestructuradas formuladas a personas claves relacionadas de forma directa e indirecta con el Proyecto, instrumentando entrevistas en profundidad.
- Series of open and semi-structured questions asked directly to key people and indirectly related to the Project, conducting in-depth interviews.
- Focus group interviews: can be conducted to directives of the Municipalities of the AMA., as well as a technical group, whose specific objective would be to analyze the indicators, results, products and activities of the project, to know if these are measurable, relevant and appropriate.
- Direct observation in pilot projects (field): in addition to interviews, documents, etc., the implementation of planning and coordination tools, appropriation of the project by relevant actors and the use of project monitoring tools, as well as adaptive management, will be verified on the ground.

The crossing of information will occur when the key situations of the project implementation context are found, with that information provided in interviews and progress reports and other publications, so that the conclusions obtained are balanced and as objective as possible to avoid the bias of the informants.

Financial Analysis

For the financial analysis, it will be based on the expenditure and co-financing figures provided by the project and from UNDP's ATLAS system. This financial year will seek to visualize general aspects of budgetary implementation, such as the weight of project staff expenditure within the total budget, expenditure evolution by year and by category or product, expenditure in consultants, etc.

To visualize the adaptive management of the project, PRODOC will be contrasted against its assumptions, risks, indicators, results, etc., with the actual progress of the project, to verify that the necessary adjustments have been made to be able to meet the objectives and results of the project. The same exercise will be carried out to determine the relevance and participation of actors.

Limitations of methodology

The second has a limitation on having information of the interviewees that could be dissimilar and / or partial (informant bias), which may lead to trials that will have to be assessed equally by the evaluator. In this respect, participatory evaluation can help in minimizing any risk of lack of objectivity or unbalanced information.

Key Figures

The key players of the project and which will be of priority to interview are as follows:

- Secretaria Técnica del Planificación (STP)
- Secretaria de Emergencia Nacional (SEN)
- Ministerio de Ambiente y Desarrollo Sostenible
- Ministerio de Obras Públicas y Comunicaciones (MOPC) y Comunicaciones (MOPC)
- Ministerio de Urbanismo, Vivienda y Hábitat
- Municipalidad de Asunción y los Municipios
- Academic representative
- Red Paraguaya por Ciudades Sustentables
- Guayra Paraguay
- Asociaciones de recolectores (gancheros y carreteros)
- Junta del Proyecto
- Oficial de Programa de UNDP Paraguay
- Project Management Unit
- Reserva Ecológica Banco San Miguel y Bahía Asunción (REBSMAYBA)
- Parque Guazú Metropolitano (MGP)
- Jardín Botánico y Zoológico de Asunción (JBZA)
- Red de Bicisendas

3. PROJECT DESCRIPTION AND BACKGROUND

3.1. DEVELOPMENT CONTEXT

The Project's Objectives are aligned with the national priorities established under the National Development Plan 2030, Master Transport Plan, the National Logistics Plan, the National Environmental Policy; National Climate Change Policy; National Disaster Risk Reduction Policy; the Strategic Plan National Protected Area System; and the Integrated Urban Waste Management Master Plan.

In addition, the project's goals are in line with the GEF 6 Integrated and Sustainable Cities Approach initiative, and the Sustainable Development Goals (SDGs). In particular with Objective 11 SDG "To ensure that cities and human settlements are inclusive, safe, resilient and sustainable and its target 11.2 by 2030, to provide access to safe, affordable, accessible and sustainable transport systems for all, to improve road safety, in particular through the expansion of public transport, with particular attention to the needs of vulnerable people, women, children, people with disabilities and the elderly; 11.3 by 2030, improve inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable planning and management of human settlements in; 11.4 strengthen efforts to protect and safeguard the world's cultural and natural heritage; 11.6 by 2030, reducing the negative per capita environmental impact of cities, including paying special attention to air quality and management of municipal and other waste; and 11.7 by 2030, provide universal access to safe, inclusive and accessible green areas and public spaces, particularly for women and children, the elderly and people with disabilities."

3.2. PROBLEMS ADDRESSED BY THE PROJECT

The Great Asunción accommodates eleven municipalities and had a general population of approximately 2.3 million people by 2012. Population growth has shifted to neighboring municipalities producing urban development based on a model of horizontal urban expansion of the Great Asunción.

Neighboring cities serve as dormitory villages because the main economic activity and service delivery are still focused on the City of Asunción. The growth of the Metropolitan area of Asunción without a defined structure has created a serious of urban problems that affect the city's environment, the economy and the quality of life. Added to these problems is the lagging investment in key infrastructure and services such as the distribution and treatment of water, roads, and infrastructure for waste management.

Asunción also shows unique features that offer both challenges and opportunities for sustainable and flexible growth. One of these is its vulnerability given its location on the banks of the Paraguay River and the corresponding cyclical floods, posing additional challenges for transport and waste management

The city's horizontal growth is causing land-use changes that not only threaten the landscape, but also increase the vulnerability of the metropolitan region to natural disasters, as well as reducing the quantity and quality of the city's green infrastructure

One of the main problems in Asunción is the urban transport network. Rapid urban expansion without planning has produced an unsustainable transport system that has contributed to the city's increased congestion rather than offer a solution.

The unsustainability of the transport sector is strongly linked to low energy efficiency and high greenhouse gas emissions. From 2008 to 2012 the average emissions of motorized transport in Paraguay were about 4.6 MtCO₂-eq per year.

The Municipality of Asunción and the surrounding municipalities that make up the Great Asunción lack an integrated approach to municipal management of solid waste. The volume of waste produced by the population of the Greater Assumption reaches about 1,440 tons per year

Indiscriminate dumping of waste in illegal landfills and unsanitary landfills is causing soil contamination, watercourses due to filtration, in air pollution due to open burning of waste emanating from unintentionally produced persistent organic pollutants (UPOPs), as well as in the emission of greenhouse gases (GEIs) as a result of the decomposition of waste. The emanation of UPOPs and GEIs have a global impact and wreak havoc on communities and environments located far from the Great Asunción.

There are currently no large-scale waste recycling or recovery initiatives, even though a few people with small-scale initiatives work in this sector. Due to the absence of large-scale waste recycling and valuation and recovery initiatives, it is mainly the informal sector (sometimes organized in cooperatives) that lives off waste collection.

In addition, most industrial or hazardous waste is treated and sent to a specialized landfill in Chaco or municipal waste dumps. This practice could result in fumes of UPOPs, PBDEs and toxic metals, such as mercury and lead.

Although the extent of green areas remains relatively constant, the overall value of biodiversity wealth is being harmed by habitat conversion and degradation leading to fragmentation and reducing the viability of populations. This is mainly due to the expansion of the transport system that must be supplied to the daily flow of people from surrounding cities and the increase in the production of solid and liquid waste.

3.3. PROJECT DESCRIPTION AND STRATEGY

This project is located in the Metropolitan Area of Asunción (known as the Great Asunción), and seeks to move this urban area towards a sustainable and flexible city, built on important fundamental programs that will be implemented in the next four years to dedicate themselves to the main and current urban problems: transport especially, solid waste disposal and management of green areas.

The project will implement "green corridors" that promote urban connectivity while strengthening parks and their protected area systems. This will be complemented by strengthened waste management practices, which will also reduce pressures on the city's ecosystems. By identifying these synergies, promoting integrated planning and an investment framework, the project will create the foundations to lead the city towards a sustainable path. It will also optimize the delivery of multiple global benefits (fully aligned with UNFCCC, CBD, and the Stockholm and Minamata

Conventions), as well as local benefits including health improvement, crime prevention, increased productivity, and improved quality of life in general.

The objective of the Project is to improve the quality of life of Asunción and generate multiple benefits to the entire population according to their needs through the integration of transport, solid waste management and green infrastructure to urban planning to achieve a sustainable and resilient city.

The Project has been organized into five results with their respective products:

Result 1 - A functional framework for a sustainable green city improves AMA's comprehensive urban planning.

- Product 1.1: Territorial Planning Plan and Sustainable Development Plan of the Metropolitan Area of Assumption (AMA).
- Product 1.2: Sustainable City Financial Strategy to increase collection capacity and sustainable investments in transport, solid waste and chemical pollutant management, and protected areas/green areas.
- Product 1.3: Institutional capacity building plan for comprehensive urban planning.
- Product 1.4: Adjustments in the policy and regulatory framework to improve comprehensive urban planning.
- Product 1.5: Inter-agency and cross-sectoral dialogue and participation mechanisms for comprehensive urban planning.
- Product 1.6: AMA Risk Reduction and Early Warning Management Plan.
- Product 1.7: Monitoring and Control System (MRV) for a Sustainable City.

Result 2 – Sustainable mobility and transport implemented in the AMA to reduce greenhouse gas emissions from urban transport.

- Product 2.1: Multimodal transport measures for the AMA in line with the Metrobus project.
- Product 2.2: Measures to improve the management of AMA traffic.
- Product 2.3: Optimal routing system of buses and sustainable shelters to complement the Metrobus.
- Product 2.4: Standards for emissions, maintenance, and disposal of public transport vehicles.

Result 3 - Improved waste and chemical management system to reduce emissions of GHG, UPOP and toxic chemicals.

- Product 3.1. Pilot Project on the Proper Management of Illegal Landfills in RBSMyBA to reduce global impacts.
- Product 3.2. Pilot project for the collection and separation of USW (10 ton/day) for the recovery of materials contained in the waste.
- Product 3.3. Pilot recycling project (6 ton/day) for the recovery of materials contained in urban solid waste (USW).

Result 4 – Improved urban protected area management.

- Product 4.1. Management Plan of the Ecological Reserve of Banco San Miguel and the Bay of Asunción approved and initially implemented.
- Product 4.2. Management Plan for the Guazú Metropolitano Park and the Botanical Garden for the conservation and sustainable use of key ecosystems.
- Product 4.3. Green Corridor of Assumption established for the conservation of urban biodiversity and provision of ecosystem services.

Result 5 – Dissemination of lessons learned, monitoring and evaluation.

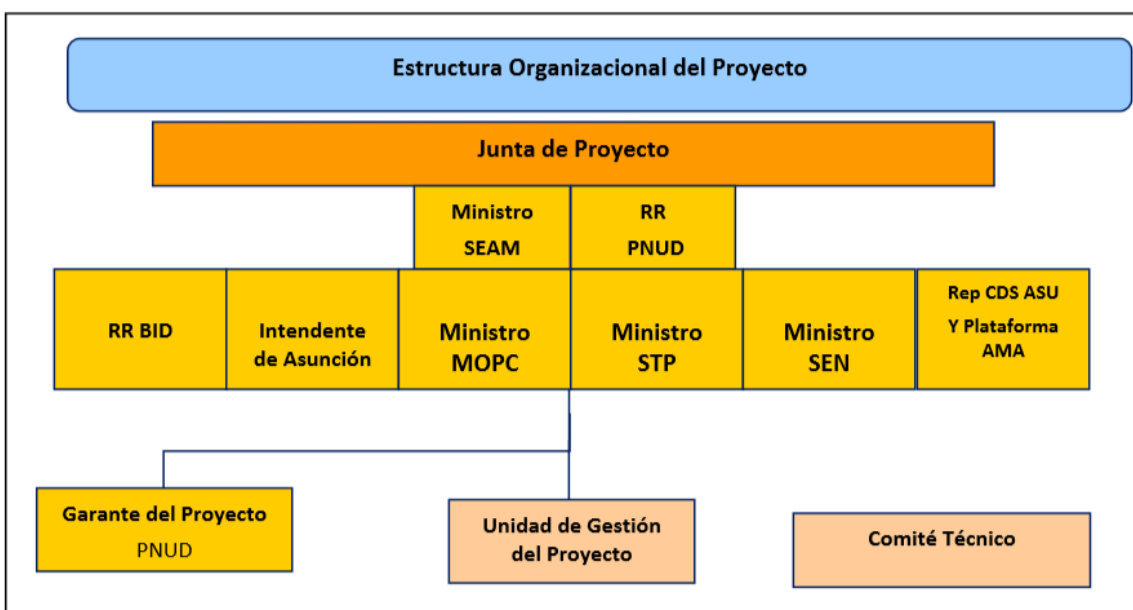
- Product 5.1. S&E system of the established project and generating periodic reports.
- Product 5.2. Mid-Term evaluation and Final Assessment.
- Product 5.3. Published and disseminated knowledge products, good practices and lessons learned from the Project.

3.4. PROJECT IMPLEMENTATION MECHANISM

The Project would originally be implemented in accordance with the direct implementation modality (DIM) being the implementation partner of UNDP and subsequently, the first year would switch to the national implementation modality (NIM) becoming the partner in the implementation. By agreement of the Project Board, the change from DIM to NIM did not take place, and the project continues to operate under the DIM implementation modality.

The Organizational Structure of the Project includes the following instances: The Project Board; the Technical Committee; the Project Guarantor; and the Project Management Unit.

Table 5. Organizational structure of the project



Source: *Project Document and Project Operational Manual*

To better understand the handling of these instances, then the responsibilities are presented.

The **Steering Committee (JP)** is the maximum unit of project coordination, it is the space where the project management decisions are taken by consensus and from which it is ensured that the actions implemented are aimed at achieving the results. This instance approves the work plan and annual budget, coordinates actions between the different government agencies in the framework of ensuring participation, supervising the work carried out by the Project Management Unit (PMU), reviewing reports and monitoring the progress and effectiveness of the project implementation. It must meet at least once a year.

The **Project Management Unit** is the coordinating team established within UNDP, working in coordination with the leading project institution (MADES). This unit is responsible for the day-to-day management and coordination of the project, both technical and administrative aspects.

The PMU is made up of the following consultants:

- Project coordinator
- Administrator
- Technical specialist
- Administrative Assistant
- Communicator and Knowledge Management
- Technical results managers

It is the responsibilities of this unit to ensure the implementation of activities, coordination and supervision of activities, organize project meetings, hire and manage contracts, establish an

effective network among project actors, review and make recommendations on reports and establish and validate thematic areas.

The **Project Assurance** is represented by a member of the UNDP Country Office, specifically the Program Officer, which is additionally covered by the UNDP-GEF Regional Technical Adviser as needed.

The **Project Technical Committee (TC)** is the operational body of the project and is composed of representatives of the institutions and organizations involved in achieving the results established in the project, specifically in their areas of work. Only technicians appointed by the highest authority of the institutions that are part of the Technical Committee may participate.

3.5. IMPORTANT SOCIO-ECONOMIC OR ENVIRONMENTAL CHANGES SINCE THE START OF THE PROJECT'S EXECUTION

The most important impact worldwide and therefore also in Paraguay that causes important socioeconomic changes in the execution of this project is the COVID19 Pandemic.

The measures of social distance and home stay to protect the health of the inhabitants have resulted in a decrease in the activities that can be carried out by the project. While working by digital means it is possible for many of the tasks to be accomplished, there are some that cannot be completed without going to the field. There are also major changes in national priorities at all levels, and it also influences the attention and budgets to be designated by the institutions involved.

3.6. MAIN PARTNERS AND PARTIES INVOLVED IN THE EXECUTION

Table 6. Institutions part of the project, according to sector.

Government Partners	Civil Society Organizations	Private Sector Partners
<ol style="list-style-type: none"> 1. Ministerio del Ambiente y Desarrollo Sostenible (MADES) 2. Municipalidad de Asunción 3. Ministerio de Obras Públicas y Comunicaciones (MOPC) 4. Secretaría Técnica de Planificación (STP) 5. Secretaría de Emergencia Nacional (SEN) 6. Municipalidades del AMA (10), consejos de 	<ol style="list-style-type: none"> 1. Red Paraguaya de ciudades sustentables 2. Guyrá Paraguay 3. Federación de Entidades Vecinalistas del Paraguay (FEDEM) 4. Collector's Associations (gancheros y carreteros) 	<ol style="list-style-type: none"> 1. Consorzio di Bacino 2. A global pact - 60 member organizations

desarrollo y plataforma de consejos de desarrollo 7. Secretaría Nacional de Cultura (SNC) 8. Secretaría Nacional de Turismo (SNT) 9. Ministerio de la Mujer 10. Dirección de Meteorología e Hidrología (DMH) 11. Universidad Nacional de Asunción (UNA)		
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Source: Own elaboration based on Project Document (PRODOC)

In the second half of 2019 the Ministry of Urban Planning, Housing and Habitat joined the Ministry of Urbanism, Housing and Habitat with the list of government partners.

4. FINDINGS

4.1. PROJECT STRATEGY

4.1.1. PROJECT DESIGN

The strategy indicated in the Project Document is being successfully implemented for the fulfilment of the expected results. There are some concerns regarding the following issues that could directly affect the possibility of obtaining the results as originally identified. These concerns are as follows:

- a. The approach of the Metrobus project has changed significantly with respect to the investment that MOPC had originally indicated. The new approach is yet to be defined, but it possibly implies the non-use of new special routes but rather the use of existing routes with some priority routes. Public transport units currently in operation will have to be renovated or changed. The Project Board should return to the approach to this expected Metro Bus outcome and formulate a plan consistent with the main objective of the project to continue as far as the actual budget and counterpart allow.
- b. MOPC's decision not to move forward with the investment in the Metrobus project, results in a substantial reduction in the counterpart that the institution had submitted. This MOPC co-financing represents 98.9% of the total co-financing of the project. While it is true, that the MOPC will not withdraw its entire financial commitment, it is still uncertain if it will be reduced significantly. It is important to address this issue with the MOPC to re-evaluate their investment and be able to account for the actual amount.
- c. The economic and social situation of the country because of the effects of COVID19 could affect some of the activities necessary to achieve the expected results.

4.1.2. RESULT FRAMEWORK / LOGICAL FRAMEWORK

During the logical framework analysis it was noted that the medium-period indicators in some specific cases correspond to evaluation scores that are derived from the UNDP Capability Assessment Matrix and are quantifiable, according to SMART criteria, but a rating number does not give much information with respect to the challenges addressed or achievements that obtained during the process to obtain this result. For example, is Result 1: a functional framework for a sustainable green city improves AMA's comprehensive urban planning. Besides the UNDP capacity score there should goals to be reached by the institutions being evaluated to complement the score given.

The indicators for the remaining results 2 to 5 are in accordance with the "SMART" criteria recommended in the formulation of a results framework.

4.2. PROGRESS IN ACHIEVING RESULTS

4.2.1. PROGRESS MATRIX

Tabla Matriz de progreso en el logro de resultados				
Project Objective: Improve the quality of life in the Asuncion Metropolitan Area (AMA) and deliver multiple benefits through the integration of transport and solid waste management and green infrastructure into a framework for a sustainable and resilient city				
Indicator	Baseline	Midterm Goal	Status as of March 2020	Results rating
Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals, and waste at national and/or sub-national level.	0	1 (Asuncion Autonomous Planning Institute established)	<p>Scope modified to IAPAMA- Autonomous Planning Institute of the Metropolitan Area of Asunción.</p> <p>Proposal for structure with function manual approved by the Technical Committee submitted to the Central Government.</p>	S
Number of direct participation structures of civil society, disaggregated by sex, in urban planning and management that operate regularly and democratically ³⁴	0	1 (Platform for dialogue with public, private, and civil society actors where at least 40% belong to either sex)	<p>Municipal Development Council (MDC) indicates a lack of strengthening and participation of civil society.</p> <p>3 MDC running and articulated.</p> <p>The MDC of Asunción has been strengthened, new board of directors. (27 total members and 7 of which are women). Gender equality achieved.</p> <p>More effort and investment are needed to strengthen the remaining MDCs.</p> <p>Consultancy to strengthen AMA MDCs with training and follow-up of leaders from each municipality with completed TORs.</p>	MS
Quantity of GHG emissions mitigated and sequestered through transport-oriented development, green infrastructure, and solid	Transport: 0 Solid Waste: 0 Green Infrastructure: 972,232	Transport : 45,500 vastes : 55 green infrastructure : 972,232	<p>Establishing NAMAs at the national level in process</p> <p>MOPC and MADES making efforts to present the BRT as a NAMA to UNFCCC.</p> <p>Consulting to identify GHG reduction with the BRT completed</p>	

waste management policy uptake (tons of CO2e)	Total: 972,232 972,232	Total : 1,017,787	<p>Bicycle path network has been designed for 600 km in the AMA.</p> <p>Protocol for scrapping old buses completed</p> <p>Calculation of GHG emissions, and the cost of ghG emissions in human health performed</p> <p>Proposal for air quality regulation completed and socialized with the MOPC</p> <p>Plan to clean, recover and maintain the Banco San Miguel Reserve and REBSMAyBA has been completed.</p> <p>Guide to eliminating informal landfills of solid waste and good practices for completed cleaning brigades.</p> <p>In the process of awarding consultancy for cleaning activities. The pandemic will be an element that could delay this activity for an undefined time today.</p> <p>An awareness and training process with REBSMAYBA community members has been completed</p> <p>Participatory diagnostics, awareness and training have been held with civil society organizations and recycler associations of Banco San Miguel</p>	S
Quantity of UPOP emissions reduced through an integrated waste and chemical management system (gTEQ	132.53 (due to uncontrolled combustion and landfills)	6.6	<p>National Plan for the Management of Integral Urban Solid Waste Management and National Plan for hazardous waste management have been socialized and has technical approval from MADES, pending final approval in 2020 and the proclamation made with the MADES resolution. It contains guides for municipalities to develop their municipal plans for the integral management of solid waste and a guide to the characterization of urban solid waste.</p> <p>Inspection guide for hazardous wastes for use by MADES and municipalities have been completed and training carried out.</p> <p>Generic guide to good environmental practices and best available techniques for hazardous waste management completed and training performed.</p> <p>MADES resolution 304/19 establishing the methodology for the characterization of urban waste has been adopted.</p>	S

			Waste characterization study was conducted in 2019 and workday to present the outstanding results is pending. This has all been delayed due to the conditions of the shutdown resulting from the pandemic covid19, but the field work was finished at the start of March 2020.	
Increase in 1% of global populations (number of individuals) of 5 species found seasonally at site: Buff-breasted Sandpiper (Tryngites subruficollis); American Golden Plover (Pluvialis dominica); Lesser Yellowlegs (Tringa flavipes); White-rumped Sandpiper (Calidris fuscicollis); and Pectoral Sandpiper (Calidris melanotos)	Buff-breasted Sandpiper: 7 American Golden Plover: 5 Lesser Yellowlegs: 2 White-rumped Sandpiper: 37 Pectoral Sandpiper: 70	Buff-breasted Sandpiper: 350 American Golden Plover: 250 Lesser Yellowlegs: 150 White-rumped Sandpiper: 700 Pectoral Sandpiper: 1500	Agreement between Guyrá Paraguay and UNDP signed Guyrá implements biodiversity monitoring plan for Banco San Miguel, Jardín Botánico and Parque Guazú. 6 monitoring were carried out of which 5 flag species were found. Guyrá Paraguay presented a plan to recover the habitat in the reserve of Banco San Miguel (REBSMAYBA). The dam was completed and the removal of 15 hectares of invasive species has been finished. 4 concerts "music to fly" performed.	HS
Outcome 1 Enabling framework for a green sustainable city enhances integrated urban planning of the AMA				
Indicator	Baseline	Midterm Goal	Status as of March 2020	Results rating
Level of capacity improvement of 3 institutions with mandates in sustainable city issues, measured through the	Level of capacity improvement of 3 institutions	SEAM: 1.02 M.A.: 0.53 MOPC: 1.66 (maximum score: 3)	Socialization of the Asunción POUT in the Municipality of Asunción Sustainable cities information platform enabled. AMA Knowledge Platform in Process	

UNDP Capacity Scorecard, with gender approach	with mandates in sustainable city issues, measured through the UNDP Capacity Scorecard, with gender approach		<p>MDCs in general need strengthening to engage civil society, more investment may be needed to strengthen MDCs. The MDC strengthening plan has been designed.</p> <p>Air quality monitoring station installed and operating</p> <p>Training in the process of being developed: management and management of municipal mapping; technical training on the use of the QGIS tool</p> <p>Training in POUT development based on the Guide to the development of the POUT by STP/MADES for central government institutions and AMA municipalities</p> <p>DGEEC conducts gender-focused mobility survey and socioeconomic issues</p>	MS
Level of improvement of institutional capacities in planning, implementation, and monitoring of urban, resilient, adaptive, and sustainable growth of 3 institutions measured through the Sustainable City Capacity Scorecard, with gender approach	Sustainable City Capacity Scorecard to be developed and applied in project year 1	TBD in year 1	<p>Capacity evaluation matrix applied to: MADES (1), MOPC (1.16), MA with results.</p> <p>Diagnosis to develop the POUT for the AMA and 11 municipalities</p> <p>POUT working group formed</p> <p>Metropolitan management dialogue platform established</p> <p>Consultations in process: guide for municipal risk management plans; statistical records for SENDAI Framework report.</p> <p>25 people trained in GRR for Asunción and AMA. (13 women)</p> <p>Green Infrastructure Manual with emphasis on tree planting in process with support from MUVH.</p>	S
Percentage of increase of the municipal budget allocated to infrastructure works for the development of a sustainable city (Municipality of Asuncion)	19 (USD 27.3M of USD 143.6M in 2015)	25	<p>Proposal for real estate capital gains mechanism in the different municipalities of AMA</p> <p>Proposal for private public partnerships for infrastructure works and municipal services with legal instrument in development</p> <p>Proposal for each municipality to strengthen efforts to increase the institution's income.</p>	MS

			Analysis of the feasibility of implementing the Payment for Environmental Services system to be applied to green areas of the municipalities, as a mechanism to increase income for the investment in sustainable infrastructure was proposed.	
Area (hectares) with improved biodiversity conservation from infrastructure development restrictions through mainstreaming green corridor restrictions and finance into urban plans and transport environmental impact assessments.	7,854 (Infrastructure development restrictions not mainstreamed into urban plans and EIA to ensure biodiversity conservation)		A proposal for the resolution to define Asuncion's Green Corridor completed. Guide to Municipal Arborization in AMA Completed. Two green area management plans under the Ministry of Defense completed. Guyrá Paraguay has carried out work on the dike to recover 10 hectares of habitat, in addition to removing Yukeri from the area. The first pilot plan for cleaning up waste residues was completed, but in these Pandemic times new activities have not been planned.	S
Outcome 2 Sustainable and safe mobility and transport in metropolitan Asunción for reducing GHG emissions from urban transport				
Indicator	Baseline	Midterm Goal	Status as of March 2020	Results rating
Number of urban passengers riding the alternative of low carbon BRT system -considering gender equality, time improvement and safety.	0 passengers	Maximum of 230,000 passenger per day	AMA mobility survey to be conducted with the DGEEC and MOPC was scheduled to begin in May 2020. Because of the pandemic, it will have to wait. The BRT is in the process of being redesigned and replanned. It is possible to identify a NAMA to facilitate the purchase of electric buses. It is pending to decide what to do with a route that already exists.	MS
Number of kilometers of dedicated urban bicycle paths constructed and maintained	1	40	Design of 600km of Bicycle paths completed. Preliminary project for 61 km of Bicycle paths in process of call to tender for an executive project.	S

Number of pilot traffic management measures implemented (e.g. parking charges and restrictions, temporal one-way street implementation, reversible lanes, traffic signs, and dedicated bus lanes in a major city street)	0	2	<p>There is a mobility and transport survey for (MOPC/MA) is in process (MOPC/MA) in the process to be completed by DGEEC. There has been some delay because of the Pandemic.</p> <p>Consultancy to standardize GTFS data, for transport data for the AMA is ongoing.</p> <p>Meetings between ANSTV, UNICEF and UNDP to design pilots to implement road measures around schools. First pilot conducted in February 2020 with UNICEF and Municipality of Fernando de la Mora.</p>	MS
Number of bus routes optimized to complement the BRT and including the construction of bus stop shelters for optimized passenger experience	0	10	<p>Design of 3 new roofed bus stop shelters models and 3 to restore existing shelters on a completed bus route</p> <p>Consultancy for the control of the construction of shelters contracted, but due to the pandemic awaiting to start</p> <p>In the process of awarding consultancy for the construction/installation of the shelters. Also waiting for start due to pandemic</p>	S
Number of scrapped buses due to implementation of new vehicle emissions, maintenance, and scrapping standards for public transport vehicles	0	50	<p>Protocol to regulate bus scrapping and emission control completed</p> <p>Training by MOPC and MADES to implement the protocol</p>	S
Outcome 3 Improved chemicals and waste management system for reducing emissions of UPOPs, GHGs and toxic chemicals				
Indicator	Baseline	Midterm Goal	Status as of March 2020	Results rating
Number of tons/day of wastes managed through a pilot on collection and separation of MSW	0	5 (2% of total)	<p>Awareness-raising and awareness program implemented January 2020</p> <p>It includes two main areas of interest: alternatives to USW management and training community leaders in waste management issues at RBSMyBA. Currently detained by Pandemic.</p>	

			<p>Business plan for the waste separation pilot. Includes paper, cardboard, metals, plastics, and tetra Brik. Starting first with recycling and then implementing segregation</p> <p>Letter of Intent between MADES, MDN, MUVH, MCA and UNDP signed for pilot in Barrio San Francisco.</p> <p>Agreement between institutions and Itaipu is pending but on course.</p> <p>Pandemic shutdown of activities makes it difficult to work with the communities of gancheros and recyclers.</p>	MS
Number of tons of materials recovered/ recycled/day through a pilot on recovery of the value contained in MSW	0	3	<p>Business plan for the finished recycling pilot for products: pruning chips; pallet chips; composting; tires; Carton. They will first work with plastics because it does not currently have a market and can be used to manufacture products for use in constructions, furniture, garbage, schools, road labeling</p> <p>Tendering for potential recyclers was scheduled for July 2020, which, like other activities possibly being postponed.</p> <p>Waste value chain mapping in the AMA under development. The role of women is one of the expected results. Result expected for June 2020.</p>	S
Percentage of increase in incomes of waste pickers incorporated into pilot waste management facility (at least 50% of workers are female).	USD 14-30/day	20 (USD 16.8-36)	<p>Implementation of collective intelligence methodology to address issues in the San Francisco neighborhood</p> <p>Work to identify factors that could result in low productivity in separation and collection to implement process productivity</p> <p>Workshop with recycler association carried out</p> <p>These initiatives will be affected by the restrictive measures of the pandemic.</p>	MS
Outcome 4 Emplacing and improving Protected Area and Urban Green Infrastructure management				
Indicator	Baseline	Midterm Goal	Status as of March 2020	Results rating
Level of improvement of management effectiveness score of 3 urban protected	BSMyBA: 31	BSMyBA: 65 Parque Guasu: 65	There is a new version of the management plan for the REBSMAyBA reservation with the participation of several	

areas, measured by the GEF/METT	Parque Guasu: 41 Jardin Botánico: 52	Jardin Botánico: 75	<p>stakeholders. A technical working group has been formed under the leadership of the Municipality of Asunción.</p> <p>The contract for the development of the management plan the invasive species in the MGP with a small pilot implementation started on April 27, 2020.</p> <p>Meetings have been held with the Municipality of Asuncion to support the approval of the JBZA Environmental License and the corresponding permit from MADES.</p>	S
Number of hectares of green areas with improved management	5,770 (Green corridor not officially recognized)	Management effectiveness tool to be defined as part of the establishment of the green corridor.	<p>In the process of evaluation, a consultancy to include the category of the urban protected area in the SINASIP.</p> <p>Completed map of potential areas to integrate the AMA green corridor.</p> <p>Work initiated to strengthen new green area for City of Ñemby and other areas of the proposed green corridor.</p> <p>Training plans for municipal nurseries to enhance the use of the arborization guide and urban approach with support from the MUVH completed</p> <p>Urban park ranger guide published. Trainings scheduled for after health opening.</p>	S
Number of hectares of habitats in Bahia de Asuncion recovered and secured for 28 species of Nearctic migratory birds and 47 species of southern South American migratory birds	0	20	<p>Agreement between Guyrá Paraguay and UNDP in operation.</p> <p>Habitat recovery activities initiated and in process.</p> <p>Three cleaning campaigns carried out with 800 volunteers to remove waste within the reserve.</p> <p>Awareness and sensitization work on the correct management of USR and urban biodiversity to residents of the current zone.</p>	AS
Number of persons using green areas (disaggregated by sex) who are involved in the improvement processes, understand the links with	0	30% of users (at least 20% women)	<p>Awareness-raising activities on REBSMAYBA and birds in MOPC's environmental interpretation center.</p> <p>Two workday activities on urban biodiversity with researchers</p> <p>Conference on arborization at the MGP with delivery of the AMA's urban arborization guide</p>	AS

quality of life and cultural richness and feel safe			Four "music to fly" concerts performed 4 different green areas in the City of Asunción with citizen participation. TDR to carry out a survey of users of green areas under development.	
Outcome 5 Dissemination of Lessons-learned, monitoring & evaluation				
Indicator	Baseline	Midterm Goal	Status as of March 2020	Results rating
Level of project implementation and achievement of results (percentage of budgetary execution)	65	Level of project implementation and achievement of results (percentage of budgetary execution)	The implementation of the budget per year was as follows: 2017 (100%), 2018 (58.50%), 2019 (81.57%) and to date this evaluation reports for 2020 (35.79%). The total implementation with respect to the total budget is 59.21% that is below for what was determined as an indicator for the mid-term.	MS
Mid-term review report and final evaluation report	1 (MTR)	Mid-term review report and final evaluation report	Achieved	
Number of publications on best practices and lessons learned (at least 1 on gender)	4	Number of publications on best practices and lessons learned (at least 1 on gender)	Two good practice materials and lessons learned: (i) participatory design of a Bikers for AMA network, (ii) design and consensus of a published metropolitan planning platform	S

Code for the Evaluation of Indicators

GREEN = ACHIEVED	YELLOW = IN THE PROCESS OF ACHIEVING	RED = NO PROGRESS TO ACHIEVING
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¹ "Guide to the Conduct of the Mid-Term Review in UNDP-Supported and FG-Funded Projects"; DIRECTORATE UNDP-GEF 2014, United Nations Development Program, <http://web.undp.org/evaluation/guidance.shtml#handbook>

4.2.2. EXPLANATORY NOTE TO THE RATING OF INDICATOR 1 OF COMPONENT 2

The first indicator of component 2 is the only one that received a moderately satisfactory rating with the prospect of not making way to achievement. The reason for this assessment is based on two key elements: First, although the consultancy has been contracted to conduct the mobility survey with DGEEC and MOPC, the progress due to the Pandemic will make it very difficult to complete it in the second half of 2020; Secondly, the MOPC is in the process of redesigning the BRT and some sections will need to be planned again, including one that already exists. The BRT will be completed but it might not be within the Project timeframe that is left, unless of course if there is a Project extension requested to compensate the Pandemic delays.

4.3. PROJECT EXECUTION AND ADAPTIVE MANAGEMENT

The implementation of this project is somewhat complicated by the number of institutions involved and the diversity of topics among the components. The approach of managing the project through the formation of working groups by component with a project team consultant responsible for the fulfillment of each group's work plan and the relationship with each incorporated institution has been effective and efficient.

4.3.1. MANAGEMENT MECHANISMS

The organizational structure identified in the Project Document has been professionally designed and effective. Some adjustments have been made to the working ways of the Technical Committee and the Project Management Unit.

For the fulfillment of the results, within the Technical Committee, the various institutions that are part of the project have been taking a lead in each of them, as shown in the following table.

Table 7. Key results, institutions, and organizations

Project results	Institutions and key stakeholders
Outcome 1 Enabling framework for a green sustainable city enhances integrated urban planning of the AMA	Municipality of Asunción, Municipalities of the Asunción Metropolitan Area, IAPAMA Advisory Committee, Ministry of Environment and Sustainable Development (MADES), Ministry of Public Works and Communications (MOPC), National Emergency Secretary (SEN), Technical Planning Secretary (STP), Sustainable Cities Network ONGs, private sector companies, Academia, Ministry of Urbanism, Housing and habitat (MUVH)
Outcome 2 Sustainable and safe mobility and transport in metropolitan Asunción for reducing GHG emissions from urban transport	Ministry of Public Works and Communications (MOPC), Municipality of Asunción, Ministry of Environment and Sustainable Development (MADES), Ministry of Urbanism, Housing and habitat (MUVH)
Outcome 3 Improved chemicals and waste management system for reducing emissions of UPOPs, GHGs and toxic chemicals	Municipality of Asuncion, Ministry of Environment and Sustainable Development (MADES), Ministry of Public Works and Communications (MOPC), NGOs
Outcome 4 Emplacing and improving Protected Area and Urban Green Infrastructure management	Municipality of Asuncion, Ministry of Environment and Sustainable Development (MADES), Guyrá, Paraguay

Outcome 5 Dissemination of Lessons-learned, monitoring & evaluation	UNDP, Municipality of Asuncion, Ministry of Environnement and Sustainable Development (MADES), Ministry of Public Works and Communications (MOPC), National Emergency Secretary (SEN), Technical Planning Secretary (STP), Ministry of Urbanism, Housing and habitat (MUVH), Sustainable Cities Network
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Source: Project Operational Manual

Undoubtedly, the establishment of these organizational bodies allows the various activities of the project to be coordinated, with the challenges involved in the coordination of both time and priorities of the different organizations. The integrality of the project and its organizational structure have been highlighted, it can be visualized as aiming to develop this aspect in an organized way. The authorities within the Project Board define the elements at the macro or managerial level; these guidelines are operated within the Technical Committee which analyses what might be the best strategies for the proper implementation. The Project Management Unit is the instance that has a permanent look towards the whole project by ensuring development in a timely manner.

Technical consultants have been hired in the Project Management Unit, one for each component, and it follows up on each group's work plan. It is the responsible who facilitates communication and relations between the group's institutions.

The institutional capacities of each organization must continue to be strengthened so that they can carry out the activities, seeking above all the sustainability of the processes.

4.3.2. WORK PLANNING

The analysis of the Annual Work Plans (AWP) indicates that there is a follow-up to activities for the fulfillment of the result considering the activities necessary to ensure gender equity. The project had a significant delay in initiating its operational activities with respect to the date of signature of the Project Document. This delay has been recovered with the efficiency and adaptive management implemented during the management of the years 2018, 2019 and the first semester of 2020. The completion of the activities regarding the ones planned is covered in the Quarterly Reports and in the 2019 PIR.

4.3.3. PROJECT FINANCING AND CO-FINANCING

The Project Management Unit has an administrator who is in control of the payment and budget control processes.

The project did not actually start until 2018 because the first national coordinator was not hired until the end of 2017. This delay in the start implementation of the project activities is clearly visible in the level of execution that was achieved for the year 2017, which was extremely low.

For the remaining years, the implementation rate increases considerably with the development of activities and active and efficient project management. This analysis includes the implementation carried out in the full years 2017 to 2019 and only for May 2020.

The logical framework sets as the implementation target, for component 5, the indicator "project level implemented and achieving results (percentage executed from the budget" 65%. The overall implementation of the project as of the date of this evaluation exercise is 40.93%. This means that the budget implementation has been moderately satisfactory.

It is important to mention that the delay in the start of the project's activities in almost a year is the main reason for this current level of execution.

Table 8. Budget per year vs real execution

Year	GEF	Real	% of execution
2017	1 349 590	106 066	7,86
2018	2 865 133	894 974	31,33
2019	1 455 268	1 468 182	100,89
2020	1 086 128	597 232	54,99
2021	736 641	0	0
Total	7 492 760	3 066 454	40,93

Note. The actual execution of 2020 is until May 2020

The Project Management Unit has not implemented the monitoring of the accounting of the counterparties executed by each of the partners who made commitments in the project document development process. For the purposes of this evaluation the Project Management Unit provides an estimate of what could be the amount of the overall counterpart of the project, without a detail per partner.

Table 9. Offset vs real accounting

Year	Cofinancing	Estimated 05/2020	% de fulfillment
2017	41 344 520	0	0,00
2018	78 423 520	595 061	0,75
2019	65 756 520	552 510	0,84
2020	46 358 520	351 095	0,76
2021	8 456 920	0	0,00
Total	240 340 000	1 498 666	0,63

Source: PMU Project Document and Information

The analysis of the counterparty committed against what has been done is a low compliance rate. The fact that an estimated amount is being used, not the result of actual accounting on the part of each partner does not allow for an analysis with which the partners are identified, nor the components that will need to be observed to ensure compliance. An especially important recommendation would be to implement systematic accounting with all counterparties with the aim of reporting their investments annually and also to keep track of what was committed against what was actually invested.

4.3.4. MONITORING AND EVALUATION

The Project Document Monitoring and Evaluation Plan has a budget that meets compliance expectations. This compliance has been satisfactory to the date of this evaluation. Documentation demonstrates this compliance, such as: minutes of the Technical Committee, minutes of UNDP monitoring meetings, the corresponding IRS, and Annual Work Plans (AWP). The MTR was completed within the time frame indicated in the Prodoc.

In the PIR for 2018 and 2019 a total of 4 of the of the Social and Environmental Safeguards questions were answered. The safeguard risks that were answered were concerning the following:

- Social and/or environmental risks identified during the project implementation.
- If any existing social and/or environmental risks were escalated during the reporting period
- If any social and environmental assessment and/or management plans had been prepared during the reporting period
- Have there been any complaints received related to social and/or environmental impacts (actual or potential)

In all the above the Project Coordination answered no. The rest of the safeguard questions were not answered.

4.3.5. STAKEHOLDER INVOLVEMENT

The involvement of the various actors within the project is carried out according to the roles and responsibilities they assume. It is important to first indicate that this project was presented by the Environment Secretariat (SEAM), ² with the support of the United Nations Development Program (UNDP) to the Global Environment Facility (GEF) in conjunction with the Municipality of Asunción, the Ministry of Public Works and Communications (MOPC), the Technical Secretariat for Planning (STP), the National Emergency Secretariat (SEN), and the Paraguayan Cities.

² Currently, this institution been given the rank of ministry and is called the Ministry of the Environment and Sustainable Development (MADES), thus modifying the name and attributes that correspond to it as an institution.

These institutions assume different roles in achieving the results of the project, sometimes as development partners, as decision makers, as beneficiaries and/or as external agents.

Table 10. Institutions part of the project, according to role

Asociadas en el Desarrollo	Co-financiador	Miembro de la Junta del Proyecto	Miembro del Comité Técnico
<ul style="list-style-type: none"> • UNDP • MADES • Municipalidad de Asunción • MOPC • STP • SEN • MUVH 	<ul style="list-style-type: none"> • UNDP • MADES • Municipalidad de Asunción • MOPC • STP • SEN • Red Paraguaya por Ciudades Sustentables • Guyra Paraguay 	<ul style="list-style-type: none"> • UNDP • MADES • Municipalidad de Asunción • MOPC • STP • SEN • MUVH 	<ul style="list-style-type: none"> • UNDP • Municipalidad de Asunción • MOPC • STP • SEN • Red Paraguaya por Ciudades Sustentables • Guyra Paraguay • MUVH

Source: Own elaboration based on Project Document (PRODOC)

Below is an analysis of the involvement of the organizations (mainly those indicated in Table 2), highlighting the most relevant findings, taking into account the documentary review provided by UNDP, in order to deepen their role with the project and with the processes carried out so far.

4.3.5.1. Government partners

Ministry of Environment and Sustainable Development (MADES)

The institutional mission of MADES aligns with the components that arise within the project. Previously this institution had the rank of Secretariat, and as it moved to a Ministerial rank its powers were expanded. As a leading institution, it is inserted in all the components of the project which makes it feasible that it has the overview and from the directions that make up the Ministry seeks to respond to the results. In this sense, it must take greater leadership so that, in conjunction with the other institutions, the necessary decisions and steps are made when progress is not being made as planned.

MADES has been involved in the processes that make the development of the Territorial Management Plan (11 municipalities) and its socialization process, where the need for greater leadership by this institution is identified so that these plans can effectively be built and above all implemented in the municipalities. As for dialogue platforms, this institution is expected to lead AMA's platform of urban sustainability indicators (Component 1). He has also worked on the design of air quality policies and the development of a scrapping protocol for obsolete buses that must be appropriated by MADES and worked in conjunction with the Municipality of Asunción (Component 2). He has been involved in the development of the guide for the characterization of solid urban waste, and has approved it by resolution, in addition to the accompaniment in cleaning days of the RBSMyBA seeking the involvement of the population that is in those areas and awareness-raising and education programs regarding the subject (Component 3). Through a strategic alliance with the organization Guyrá Paraguay, work is underway on the consolidation of the Reserve Management Plan in partnership with the Municipality of Asunción and progress has been made in identifying areas for green corridors (Component 4).

By monitoring, and through the organizational instances of the project, MADES should seek that processes are not stopped by internal situations in the party institutions and/or by criteria disparities, with MADES seeking the greatest possible consensus.

Internal coordination, of all THE MADES directorates involved in the project, is of vital importance, especially in the framework of strengthening institutional processes and appropriation of results.

The sustainability of the actions must be addressed more clearly, considering that it is a project where several institutions that assume different roles and degrees of commitment converge within the framework of the expected results.

Municipality of Asunción

The Municipality of Asunción has a fundamental role in everything it does to strengthen its municipality and accompany the other municipalities of AMA.

One of the main challenges is to strengthen in the first instance the Municipal Development Council (MDC), as an instance of citizen participation, which in turn allows the appropriation of the different actions that are carried out and support the other municipalities; in addition to continuing to work on the formation of the Autonomous Institute of Planning of the Metropolitan Area of Asunción (IAPAMAMA) (Component 1). A good practice manual for the design of bicycles has been developed at AMA, where the gender approach (Component 2) has been incorporated. Work has been done on the RBSMyBA Management Plan where a socialization process is still required for final approval and reserve cleanup actions and activities aimed at raising awareness and education to families in terms of waste management (Component 3) have been carried out. Through a strategic alliance with the organization Guyrá Paraguay, work is underway on the consolidation of the Reserve Management Plan in partnership with MADES and the actions required for the Botanical and Asunción Garden to be declared a protected area at the national level (Component 4).

The institutional strengthening of the Municipality will be vital to leave the processes installed and above all the appropriation of the actions that the project aims to achieve. It should be noted that when the quarterly changes occur, environmental policies are not changed, but on the contrary, the actions implemented can be continued, improving them if necessary.

Only a strengthened municipality will have the necessary requirements, whether human resources or financial to achieve the sustainability of the actions carried out by the project, managing to improve the quality of the Metropolitan Area of Asunción.

Ministry of Public Works and Communication (MOPC)

The MOPC, while involved in the various components, assumes a greater role in the development of components 2 and 4. It is valued that through this project the institution is visualized also working on environmental issues, as its mission establishes it.

The MOPC has or is expected to participate in the following activities:

- a. The development of a good practices manual for the design of the bicycle paths within the AMA. The manual includes a gender approach in its defining of good practices.
- b. The development of a good practices manual for the design of the sustainable rest stops/shelters for the AMA. The construction of 30 pilot shelters has been awarded to a contractor.
- c. The MOPC will sign the resolution of the National Air Quality Law.
- d. The Mobility Survey, which will eventually be implemented by the DGEEC will be of vital importance to have knowledge on the subject to develop better design policies. The MOPC must closely accompany this design process.
- e. The establishment of multimodal transport measures that need to be analyzed and worked on, especially after it has been decided that the METROBUS is not feasible.
- f. The categorization of buses in bad condition and, above all, their future final disposal is important, in the context also of the improvement of air quality in AMA (Component 2).
- g. The Technical Justification has been developed to declare the Guasu Metropolitan Park (PGM) as a protected area, since it has the same low values as a conservation site.
- h. An invasive plan for space management and ecosystem restoration is being developed.
- i. The drafting of the Interpretation Center plan has begun to be drafted. In this context, a workshop was held with Guyrá Paraguay technicians on bird observation and identification (Component 4).

It becomes vital that the MOPC continues to generate the conditions for the processes regarding the subject of transport to be properly developed, especially considering the state in which the means of transport available in the AMA are located and the heavy traffic that is generated day by day.

Technical Secretariat of Planning (STP)

STP takes a lead in establishing participatory policy frameworks that can be implemented above all.

STP has accompanied the process of developing SDP and strengthening its leadership for the correct implementation is vital. This institution has the necessary powers to ensure that these plans can be aligned, for example, with the 2030 National Development Plan. With regard to dialogue platforms, it is expected that this institution will collaborate in the development of the necessary indicators and it is proposed that both the knowledge platform and the indicator platform come together, staying at the Ministry of Technologies, information and communication (MITIC), but managed by STP and MADES. In addition, close work is being done to develop a Land Management Act, assessing inter-agency work for this process (UNDP, MADES, STP, MUVH) (Component 1).

As the body responsible for promoting sustainable development and its involvement in defining plans at the national level, it has the country's vision to seek that the regulations proposed for the project also have a look to the future or at least 2030.

National Emergency Secretariat (SEN)

The SEN has extensive experience of emergency response and has been working with municipalities to establish risk management plans, especially from a preventative and not just reactive view. Working with municipalities requires accompaniment and constant communication, especially since they are instances with weak institutional capacity.

NSS-led training has been developed on the subject of Risk Management and Reduction (GRR), especially working from a preventive and not merely reactive view. The GRR processes in the municipalities must be strengthened, thus ensuring that these bodies incorporate this approach (Component 1) into their plans.

The challenge of the interrelationship of issues that are covered by different institutions has been highlighted, an aspect that is considered to continue to be worked on to achieve greater linking. The component must be reread and reassessed in an integral way, because each institution has its focal points and works with them and the worktables, but sometimes a communicational weakness is perceived, there is little socialization between institutions part of the project.

Ministry of Urban Planning, Housing and Habitat (MUVH)

The incorporation of this institution has been fundamental for the realization of activities, as well as for the appropriation and sustainability of processes raised by the project. Its incorporation was in 2019 as a result of the Steering Committee meeting, with its involvement mainly in the working tables of: Territorial Planning, Mobility and Sustainable Transport, Platform of Sustainable City Indicators, Institutional Capacities and Management of Urban Green Areas and Protected Areas.

He has been involved in the process of creating the IAPAMA that after an analysis process has become the Autonomous Planning Institute of the Metropolitan Area of Asunción (IAPAMA) by signing a letter of understanding; in addition to the recycling project in the San Francisco Neighborhood and is working on the development of a Law on Territorial Management, valuing the interinstitutional work for this process (UNDP, MADES, STP, MUVH), as well as urban planning guidelines through the promotion of green infrastructure.

4.3.5.2. Civil Society Organizations

Paraguayan Network for Sustainable Cities

Participate in the Technical Committee from where she contributes with knowledge on some topics raised from the project. The experience developed by this organization could give a different vision towards the processes posed by the project, posing a vision from civil society.

Adaptive management was necessary with respect to the Grant modality specified in the project document. Instead of using the figure of a grant to develop component 1.7 activities, it was a Technical Committee decision to instead IC consulting tenders.

Guyrá Paraguay

The development of the project is enriched by the experience in specific topics of this institution.

Thanks to the strategic alliance developed with this institution, the Reserve Management Plan is being consolidated in partnership with MADES and the Municipality of Asunción. These participatory and alliance processes must be highlighted because they allow to consolidate processes. Work has been done on the recovery of critical habitats for migratory and beach birds and the removal of invasive species. Within the framework of the Action Plan of the Interpretation Centre, a workshop was held with the technicians of Guyrá Paraguay on observation and identification of birds (Component 4).

4.3.5.3. Other actors and/or participation spaces

Municipalities of the AMA (10), Development Councils and Development Council Platform

AMA municipalities must be strengthened in their process of developing, implementing and appropriation of PDEs. An analysis of the availability of technical and financial resources is necessary so that needs can be met and thus adequately implemented.

In addition, the strengthening of the Municipal Development Councils, as instances of citizen participation, is key. These spaces must be representative, they should involve women, young people, indigenous people, and vulnerable populations. In this regard, it should continue to target interinstitutional work to ensure that each institution has supported it from its institutional mission.

Ministry of Women

He has participated in the identification of gender indicators for the development of the bike guide. Considering the importance of the project towards the gender approach, it is considered necessary to continue to articulate with this institution, as rector of the subject, so as to have the experience and in turn that the Ministry can have tools on how to incorporate the gender approach into issues that may not always be taken into account when talking about women.

Regarding private sector involvement, support has been identified in specific actions, especially in the framework of the establishment of bicycles and the inclusive recycling initiative.

In the view of the above, it is noted that most of the government partners raised in PRODOC have important interventions within the project; private sector organizations have ultimately not had a stake in the development of the project; and the timely participation of other organizations could be boosted.

Within the framework of their institutional missions the different organizations part of the Project have assumed leadership in achieving the results, which has led to a challenge on the part of the project to achieve efforts for the correct articulation and communication between all, especially seeking the fulfillment of the objectives set. In this way, other bodies were formed that enable better structuring and, above all, coordination, considering the movement itself or activities that each of the institutions have.

Undoubtedly, the establishment of these organizational bodies allows the various activities of the project to be coordinated, with the challenges involved in the coordination of both time and priorities of the different organizations. The integrality of the project has been highlighted and its organizational structure can be visualized as suggesting that this aspect is developed in an organized way. The authorities within the Project Board define the elements at the macro or managerial level; these guidelines are operated within the Technical Committee which analyses what might be the best strategies for the proper implementation. The Project Management Unit is the instance that has a permanent look towards the whole project by ensuring development in a timely manner.

The institutional capacities of each organization must continue to be strengthened so that they can carry out the activities, seeking above all the sustainability of the processes.

4.3.6. INFORMATION AND COMMUNICATION

The working groups of the Technical Committee meet regularly and if there is a need to make an adaptive change in management at any point, it is discussed and presented to the Project Board. This ensures a blending of the institutions of each working group with the required changes. In this way the operating mechanisms are established according to the Operational Manual of the Project that was published.

An adaptive management process that is yet to be defined is the scope of the adjustment needed to compensate for MOPC's change in metrobus focus. The working group is analyzing the alternatives and MOPC takes an important part of presenting possible alternatives. Once the proposal is defined, it is submitted to the Project Board for approval.

The project management group took a rather positive and interesting initiative to inform and communicate on the progress of this project. Every 6 months a newsletter is published to inform all stakeholders about the project progress. The publication is titled, "Newsletter of news and progress of the project, Asunción Ciudad Verde de las América – Vias to Sustainability". This publication is made available for the public as well, so it fulfills the goal not only of informing partners but also to provide project transparency.

4.3.6.1. Reporting

The following proposals for adaptive management were presented at the Steering Committee meeting in early 2019:

- a. Originally it was indicated as a goal within the Project Objective in the project Log Frame that the Asuncion Autonomous Institute (IAPA) be created to lead the urban planning processes in Asunción. The Ministry of Environnement and Sustainable Development

(MADES) suggested that the scope of the Institute be extended to include the whole Asuncion Metropolitan Area, to facilitate the better coordination between the central government and the municipalities surrounding Asuncion. To do so it was proposed to change the name to the Autonomous Planning Institute of the Metropolitan Area of Asunción (IAPAMA).

- b. It is proposed to invite the Ministry of Urbanism, Housing and Habitat to the Steering Committee and the Technical Committee. Originally this institution was not included in the Steering Committee because it was created recently. Due to its direct involvement with the urban and planning issues, the Steering Committee agreed to invite the institution to have a more active role within the project. There is an institutional representative in the Steering Committee and in the Technical Committee.
- c. It is proposed to locate the Separation Plant in the San Francisco neighborhood in accordance with Itaipu, MOVH and MDN. The reason for the proposal to locate the Recycling Plant in this neighborhood is because it will bring social and economic opportunities to the population living here.
- d. The importance of linking the bike path to the green corridor was confirmed. This decision was taken to integrate the bike path in an integrate form with the beauty of the green corridor.

All proposals for adaptive changes were duly approved by the Steering Committee.

The project publishes a Twice-year Project Progress Bulletin and summarizes the most important elements of the achievements and challenges to be addressed in the project's performance. These newsletters are publicly accessible and provide an adequate project projection.

4.4. SUSTAINABILITY

The analysis of the risks identified in the Project Document, updated in each Quarterly Report in the ATLAS Risk Management Module indicates that during the year 2018 no risk is recorded in the corresponding table and for the year 2019 an organizational risks is identified as well as one political and one within the category of other. These risks are in line with those indicated in the Prodoc.

These two additional risks, which are fundamental should be evaluated further down the line of the implementation by the project management due to the potential effects that the impacts of the Pandemic may have on the country's socio-economic reality.

1. Financial Risk: Concurrent co-financing for the execution of project actions may not be obtained in time.

The municipalities of AMA, except for the Municipality of Asunción, have been affected with a decrease in the recovery of tax revenues and in some cases dismissals of officials. This could influence the sustainability of future activities with the Municipal Development Councils and is expected to recover as the pandemic passes by the end of the project.

2. Political Risk: The construction of the Metrobus is delayed.

The MOPC has changed the approach of implementing a Metrobus to establishing a SITIBUS. This change in approach does not affect the bicycle routes in the main section but it could affect the scope of the rest of the sections, as well as the possible remaining bicycle routes and shelters, which are a part of this project.

This risk should be mitigated by the follow-up in the working group on this issue of a new proposal and that is in line with the final objectives of the project.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. CONCLUSIONS

5.1.1. PROJECT DESIGN AND STRATEGY

After analyzing the project documentation and strategy, it can be concluded that it is relevant to the country's priorities defined in Paraguay's National Development Plan 2030 and the Focus GEF 6 Integrated and Sustainable Cities and Sustainable Development Goals (SDGs) initiative.

Indicators established in the logical framework in some cases do not meet the SMART criterion of being quantifiable as they are not specific and relevant. With respect to result 1.

The participation of project partners in working groups, led by technicians from the project management unit, has resulted in efficient and effective work in achieving results.

5.1.2. EXECUTION AND MANAGEMENT

The monitoring and monitoring of the project have fully complied with the formulation of the PIR, Quarterly Reports and AWP in a timely manner which is concluded is the result of efficient coordination management.

The implementation of the budget and the concrete commitment is something that has not been fulfilled in accordance with what is defined in the Project Document. It is partly due to a delay in starting the operational part of the project until the beginning of 2018 being the signing date of PRODOC April 2017. Implementation has managed to rise to levels close to those expected and it is expected that in the years to come the project will be further normalized.

The COVID19 Pandemic and isolation measures and economic impacts could slow the progress of certain activities planned in the 2020 AWP.

5.2. RECOMMENDATIONS

- A. Continue to work on the institutional strengthening of government partners, especially within the framework of their role within the project, but also strengthen the spaces of collective participation, so that the integrality of the actions and the objective of the project is achieved.
- B. The Project Coordination should keep the UNDP/Program Officer informed of the progress and quality of the institutions' participation. In this manner the UNDP/Program Office can address these issues with the institutions that have a less aggressive participation.
- C. Ensure that the monitoring and evaluation processes established by the UNDP Office are carried out in a timely manner so that Project development of the can be ensured.
- D. To lead the project always with the perspective of the role that each institution has, that is, to have clarity of the responsibilities of each and above all define how the sustainability of this project will be obtained with the leadership of the counterparties.
- E. This is a multi-component project and as such it is important to establish in the best possible way the complementarity each component has with each other and/or the importance that, as one component progresses, another component subsequently advance or be directed. The components are not isolated but integrated parts of the project.
- F. Seek to develop new strategies that will strengthen women's empowerment and gender equity in the different themes of the project
- G. In working with social and economically sensitive sectors, for instance in the recycling center proposal, the target population should be involved from the beginning of the process. This will allow for this group to believe that their opinion is heard and form part of the actions that need to be implemented.
- H. Establish a clear sustainability strategy to strengthen the institutional capacities of those who are part of the project.
- I. When certain climate change effects create situations that make it difficult to continue with certain activities, such as times of drought or flooding in the project defined areas, it would be good to have alternative activities to work on during these circumstances. These alternatives should complement in some way what was expected originally of the affect project activities are not delayed more than necessary while the working conditions improve.
- J. Financial sustainability must be improved with a better accounting of the co-financing contributions that have not been accounted for as of this evaluation. The percentage of fulfillment estimated is not a reliable indicator. A proper accounting system of these contributions be in kind or cash is extremely necessary.

- K. The population is very sensitive to green area management issues due to the urban transformations that are taking place in the metropolitan area, it is therefore a good opportunity to achieve important improvements with the support of the target public, but it becomes a project responsibility to make sure that the ideas planned do not stay only in the documental stage and are not implemented finally. A case is the Green Corridor and the future establishing of bicycle paths within the Green Corridor.
- L. Strengthen the improvement in traffic management, especially in the AMA area, where there is a lot of influx of vehicles and other means of transport. Perhaps a means of transport not considered before would be motorcycles since the increase in the use of form of transport has been noticed.
- M. In the documentary review provided, not much information about the Metrobus has been visualized, it would be important to have clarity on how this result will be completed and the what are the significant planned modifications.
- N. Considering all the progress made so far and the way of work that has been developed, research and evaluations should be undertaken in this pandemic context to assess how the project could contribute to the country's socio-economic recovery and to strengthen it with improved conditions after this crisis. This would of course have to be done within the limits of the project's mandate and its objectives.
- O. The Project Management Unit must implement among the institutions that have committed the co-financing, a system of reporting cash and in-kind investments. It is important that the accounting be available at least at the end of each semester.
- P. The COVID19 Pandemic's isolation measures and economic impacts could slow the progress of certain activities planned in the 2020 AWP and possibly until the first quarter of 2021. The recommendation of this evaluation is to request a project duration extension for a period of 18 months. This extension will be necessary to recover the work processes that have been delayed and will be affected by the socio-economic impacts of COVID19.
- Q. Considering that The Paraguayan Network for Sustainable Cities remains part of the Technical Committee by definition of the project document, it would be important to analyze according to its work national level what could be its contribution within the framework of the project.

6. LESSONS LEARNED AND GOOD PRACTICES

6.1. LESSONS LEARNED

- A. The project " Asuncion Green City of the Americas – Pathways to Sustainability " is a project in which several public institutions and civil society organizations converge. While this allows for a greater scope for the achievement of the results, it is evident that it is essential that they are clear about the role and responsibilities they assume and under which they adhere to the project.
- B. Public institutions are institutions with some bureaucracy that sometimes slows the development of the project, resulting in the established times requiring more than anticipated. It is important to consider this so that there are no weaknesses in product reviews. An example of this would be the work of the Municipal Development Councils where it has been shown that the formation and strengthening of these remains a major challenge.
- C. Incorporating the gender approach is always a challenge, especially when you do not have up-to-date information or data on that topic.
- D. The project raises specific issues that require municipalities to have established and consolidated units/areas. In this sense, it has been visualized that there is a low institutional or human resources capacity in the municipalities which makes it difficult to coordinate and implement the project's activities. Working first to strengthen these instances has been key, especially in the framework of leaving the capabilities installed.
- E. Developing innovative instances requires a previous process of awareness-raising and paradigm shifting. Such could be the case of IAPAMAMA as a more far-reaching institute towards the metropolitan area or working from platforms as a monitoring tool that will allow you to make better decisions and break with the myth that it is a form of control.
- F. To have the project's products properly implemented, municipalities should be expected to have technical, financial resources and political support.
- G. The Metrobus System could not be developed as planned in the project, despite having started construction in the established section, it had many difficulties from the beginning. It has been evident that the design and implementation of these systems must strengthen the collaborative and participatory work of all the instances that will be affected.
- H. The Project Board is an extremely important instance in the future of the project, since, although it does not have an operational role as the Technical Committee, it is the political definition space of the various actions to be taken to meet the objective of the project. It is essential that this space defines the course, otherwise it will be difficult to energize the development of the project.
- I. In a project of this size and diversity of institutions, forming a working group within the Technical Committee was an innovation that has had quite positive results and contribute to the effectiveness and efficiency of management.

6.2. GOOD PRACTICES

- A. Identify actions that are already being carried out in the areas of influence of the project, such as the work that the Binational Entity Itaipu has been doing in the San Francisco neighborhood and achieve synergy between the various institutions so that what has been done will have greater impact and is sustainable.
- B. The incorporation of the population living in the areas of influence of the project for the development of activities, as has been the cleaning of reserves and work through brigades where gancheros/collectors have been involved.
- C. The development of awareness-raising and education programs for families living in the project's intervention zones in order to raise awareness of the correct management of waste and provide them with knowledge and tools to recycle with health and environmental awareness, especially seeking strategies to guide messages to children, young people and adults.
- D. The design and socialization of knowledge materials, finding creative ways to translate technical concepts and adapt them to messages for other audiences, from infographics, audiovisual capsules, and other formats. These materials remain as inputs that can be used as needed and help generate greater empowerment of counterparties.
- E. The installation of bike spaces is a very new thing for the country. Although people in recent years have been incorporating its use, it is not yet considered as a possibility of transport. This could be because there are no pathways, so the establishment of the bikes paths can contribute to generate greater use of bicycles to get around and also to exercise.
- F. In terms of risk management, it has been valuable to incorporate the preventive and not only reactive vision of actions that could be taken forward or those that arise within the project process.
- G. The incorporation of the theme of territorial planning as a tool for the generation of public policies that enable an effective response, especially based on evidence.
- H. The design of strategies to aim that the plans or regulations developed from a general framework, such as the Solid Waste Management Plan, can be incorporated at the municipal level and thus ensure their implementation.

7. ANNEXES

7.1. ANNEX 1 – CRITERIOS EVALUATION MATRIX

7.2. ANNEX 2 – EVALUATION REFERENCE TERMS

7.3. ANNEX 3 – LIST OF REVISED DOCUMENTS

7.4. ANNEX 4 – INTERVIEWS

7.5. ANNEX 5 – LOGICAL RESULTS FRAMEWORK

7.6. ANNEX 6 – FORMULATED ACCORDING TO THE EVALUATION CONSULTANT'S
CODE OF CONDUCT