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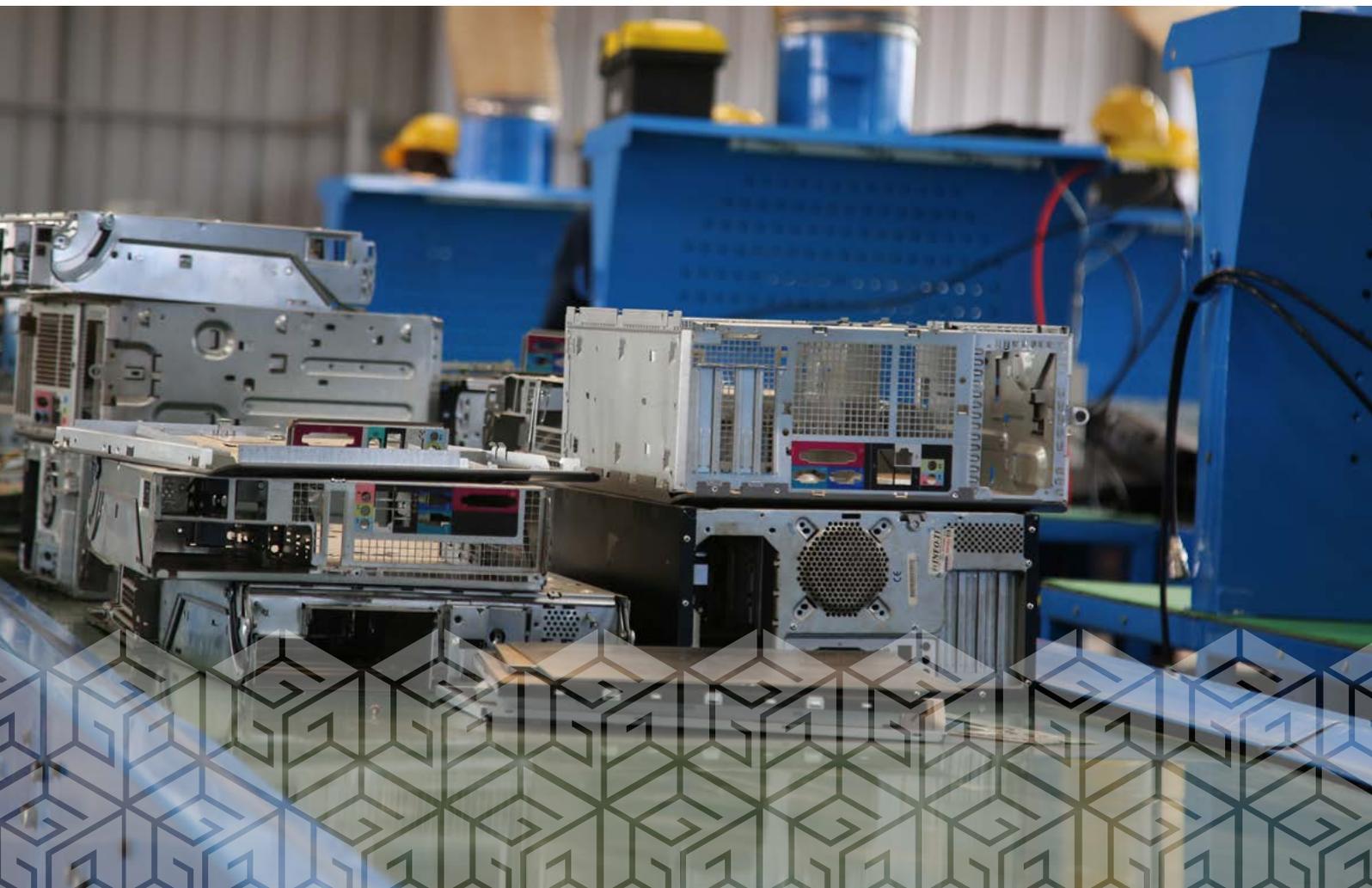


# WASTE TO RESOURCES

IMPROVING MUNICIPAL SOLID WASTE AND HAZARDOUS  
WASTE MANAGEMENT IN RWANDA

## PROJECT PROGRESS REPORT II

January 2022 - June 2022







# 1. Project Details

<b>Project name</b>	Waste to Resources: Improving Municipal Solid Waste (MSW) and Hazardous Waste Management in Rwanda
<b>Location</b>	Rwanda
<b>Reporting period</b>	01 January 2022 – 30 June 2022
<b>Report compiled by</b>	Okechukwu Daniel Ogbonnaya (Rwanda Country Representative), Michelle DeFreese (Senior Green Growth Officer), Juvenal Mukurarinda (Senior Sustainable Waste Management Officer), Ange Irutingabo (Consultant), Joyce Nyiraneza (Consultant) Yoonkyung Lee (Budget Officer)
<b>Date submitted</b>	30 August 2022

## 2. Brief Description of the Project

With increased urbanisation, the population of the capital City of Kigali has grown to reach an estimated 1.2M inhabitants in 2022, a figure that is projected to further increase. This growth is already putting pressure on the municipality in terms of waste quantity and complexity.

Inadequate solid waste management impacts drinking water quality, aquatic life, and creates blockages of waterflow which contribute to inner city flooding during storms. Lack of access to waste collection services disproportionately affects poorer, peri-urban households.

Currently in the City of Kigali, it is estimated at least 80 % of the city population has access to waste collection services of which 50 % to 60 % waste is collected and transported for disposal purposes. Informal waste collection is performed predominantly by women and children. Organic waste is predominant as compared to other inorganic waste. Recycling activities are still low estimated to be between 2 % to 5 % in the City of Kigali.

The project will alleviate barriers that lead to the landfilling of high volumes of organic waste, plastic, and e-waste from ending up in the landfill. Separation at the source and at landfill site requires multiple interventions and high initial costs. Technologies or approaches for the reuse or valorisation of plastic and organic matter are limited in Rwanda. Furthermore, there is general lack of knowledge on these technologies and approaches at national and municipal context.

The local institutions are also lacking the capacity to implement such a project. The concessional finance requested for the project is considered minimal due to the transformational changes that will be brought about through revision to the current regulation, building capacity and the provision of technical assistance and implementation of demonstration projects. These will facilitate the entry of the private sector actors in the waste sector in Rwanda, the introduction of the circular economy approach and the achievement of GHGs emission reductions.

The project will incorporate circular economy approaches to municipal solid waste and as such will be transformational because of its potential for replicability in other regions and cities, in particular Rwanda's six secondary cities that have a combined population of about 1 million.

The project will focus on the Nduba landfill site in the City of Kigali with improvements such as the procurement of equipment for weighing and sorting incoming waste. The Nduba landfill site is located in Gasabo District in Kigali Province where nearly half of the residents of Kigali live. Gasabo has the highest poverty rate of the districts within Kigali Province.

With the equipment procured, the City of Kigali will be able to determine appropriate adjustments to the tipping fee, have access to accurate data regarding the waste composition (through the waste characterization study funded as part of the project) and effectively sort recyclables from the incoming mixed municipal solid waste.

While this municipal solid waste is currently collected and deposited unsorted, City of Kigali has prioritised waste management sector and various initiative regarding sustainable waste management in the city including Nduba dumpsite are also in pipeline to mention construction sanitary landfill and recycling plants which will primarily done concurrently with increase awareness of communities on the value and need to separate at source, enable the sorting of waste at sites such as agricultural markets, to incentivize the separation and collection of recyclables such as PET plastic bottles, and to disincentivize the production and sale of single use plastic.

For example, the City of Kigali is pursuing activities to sensitise communities regarding the potential valorization of waste streams and the importance of sorting at source. Through the project activities, GGGI project team is working actively with relevant regulatory institutions to ensure the feasibility of the diffusion of green growth innovations in line with the development of associated environmental standards and protocols. The treatment of e-waste from electrical and electrical equipment

including solar equipment and electric mobility will be strengthened through the project. Project outcomes will include adoption of knowledge of new technologies, identification of new actors, and number of measures and/or regulations implemented as a result of the activities.

The project aims to mobilise 20M EUR in green investment to capitalise on the waste streams being produced in Rwanda and has three expected outcomes, defined as follows:

- Outcome 1:**  
Separation and valorization of organic and plastic waste to minimise waste landfilled at the Nduba landfill in Kigali
- Outcome 2:**  
Improved collection rate and management of e-waste in Kigali and Secondary Cities
- Outcome 3:**  
Improved policy and regulatory environment and enhanced capacity through skills development and knowledge exchange

The project has one project management output and 12 project delivery outputs as below with detailed status of each output in Section 4 of this report.

OUTPUT PM	PROJECT MANAGEMENT
Output A.1	Situation assessment of Nduba Landfill site
Output A.2	Feasibility study and piloting of waste to resources options at Nduba
Output A.3	Capacity building initiatives for Nduba Landfill site key stakeholders
Output A.4	Information memorandum developed to pitch to potential investors
Output B.1	Situation assessment of e-waste
Output B.2	E-waste collection system established in Kigali and in Secondary Cities (SCs)
Output B.3	Capacity building initiatives on e-waste management
Output B.4	Information memorandum developed for mobilising green investments
Output C.1	Policy recommendations for improved municipal SWM and e-waste
Output C.2	Capacity needs assessment of solid waste stakeholders in Kigali and SCs
Output C.3	Peer-to-peer knowledge sharing and community outreach
Output C.4	Conduct targeted behaviour change communication for communities



### 3. Summary of Key Developments During the Reporting Period

The project team concluded the hiring and onboarding of consultants supporting the project including the Gender Consultant, Arlette Iyakaremye, the E-waste Consultant, Telesphore Kabera, and Capacity Need Assessment Consultant, Ange Irutingabo. In terms of procurement, the project team has completed the procurement process for the weighbridge, which is expected to be installed in Quarter 4 of 2022. The procurement process for the sorting and separation facility is nearly completed and will mark an important milestone for the project.

#### PROJECT ACTIVITIES (JANUARY-JUNE 2022):

The project has progressed with key developments including:

#### ◆ Opportunities for Reducing and Reusing Waste:

Bilateral meetings and different workshops have been conducted to introduce the project and showcase best practices for solid waste management to ensure maximum waste diversion from dumpsites. Below is a list of meetings and workshop conducted during the reporting period:

- Meeting with the Private Sector Federation (PSF) regarding their upcoming PET plastic recycling project and opportunities for collaboration aligned with the scope of activities
- Meeting with cement producer, CIMERWA, to discuss the opportunity to transition to the use of Refuse Derived Fuel (RDF) from coal
- Sensitisation workshop and training for building managers of large-scale buildings (hotels, commercial buildings, shopping centres, etc.) in Kigali. During the workshop 30 building managers were trained including 19 men and 11 women.
- Meeting with three Nduba sector local leaders and three staff of the dumpsite operator to introduce designated location for planned infrastructure under the Project
- Visit to Charis UAS to discuss the potential for methane emission monitoring of the landfill
- Meeting with waste collection company (BAHEZA) to introduce project activities and collect data on pricing, amount of waste collected, and to sensitise the operator on the project activities and expected improvements of the Nduba dumpsite

#### ◆ Equipment of the Nduba Dumpsite:

As part of the project, two key infrastructures will be installed to Nduba dumpsite to address data gaps for waste quantities collected and transported meant for disposal and maximize sorting and separation of recyclables at the Nduba dumpsite. Achieved activities under this sub-section are:

- Call on the procurement process, lessons learned from the GGGI Philippines Country Representative
- Pre-bid meeting for the sorting equipment tender
- Conclusion of procurement process for the weighbridge (installation planned for September 2022).

#### ◆ Reinforcement of Capacities and Knowledge Sharing:

Capacity of key stakeholders in both public and private sector is echoed as one of the challenges to ensure sustainable waste management. GGGI has conducted various workshops, local visits and peer to peer knowledge exchange with the Government of Kenya.

- Workshop on Effective Municipal Solid Waste Services for waste services providers and stakeholders. The workshop was attended by 28 stakeholders from public, private sectors and academia including 23 men and 5 women.
- Site visit to secondary city (Huye) to waste treatment company (Greencare) and plastic waste recycling company (Electromax) to document best practices and opportunities to scale up existing methods of organic waste and plastic waste valorisation.
- Peer to peer knowledge sharing with the Government of Kenya. 10 Rwandan counterparts from different ministries, regulatory agencies, and local authority used such an opportunity to witness different enablers, technologies, and systems to transform and treat various types of waste including organic waste, plastic, and human waste treatment in Rwanda.

## ◆ Project Management Activities

- Organised a thematic working group to review ongoing studies including gender, e-waste, capacity need assessment and, to provide overall project progress. Inception reports for respective assignments were validated and all other remaining deliverables will be concluded in the next phase of reporting.
- Meeting with Sébastien Kieffer, Ministry of Environment, Climate and Sustainable Development from Grand at GGGI Office in Kigali, Rwanda. Sebastien was part of Luxembourg MFA Directorate of Development and Cooperation mission to Rwanda and used the opportunity to meet with the project team to discuss the project progress.

**ACTIVITIES IN NEXT PHASE (JUNE-DECEMBER 2022):** The next steps expected to be completed in the coming 6 months include:

## ◆ Hiring of New Staff:

- Hiring of the final consultant, Greenhouse Gas (GHG) Data Analyst, to develop the baseline of emissions from the dumpsite using the data from the weighbridge and waste characterization study.
- Onboarding of new staff member, Jerome Fakhry, Senior Waste Management Officer, Africa Region (August 2022).

## ◆ Visibility and Knowledge Exchange:

- Presentation of the project during Global Green Growth Week (October 2022).

- Preparation of the Study tour and visit of waste to resource facilities in Luxembourg for Government of Rwanda officials and Third Project Advisory Committee (PAC) Meeting in-person (Q1 2023).
- Organisation and convening of stakeholders, including experts from Luxembourg during the World Circular Economy Forum (WCEF) taking place in Kigali, Rwanda from 6-8 December 2022.

## ◆ Equipment of the Nduba Dumpsite

Conclusion on the procurement process for sorting equipment (planned to be completed 2023).

Installation of the weighbridge (September 2022) and completion of the waste characterization study. Post Request for Quotation (RFQ) for the design, supply, and installation of e-waste collection points in Kigali and secondary cities.

## ◆ Awareness Raising

Conduct community engagement awareness on effective municipal solid waste management in the City of Kigali.

## ◆ Engagement with the Private Sector

- Site visit to CIMERWA (cement producing company) to assess plant improvements required to make use of Refuse Derived Fuel (RDF) (September 2022).
- More bilateral meetings with potential investors for waste management.



## 4. Progress on Outputs and Activities

### 4.1. Summary of Progress

Output/Activity	Status	Initial starting date	Actual starting date	Initial completion date	Remarks
<b>Cross-cutting Output: Project Management</b>					
PM.1 Establish project team and Steering Committee/ Implementation Board	Completed	07/2021	07/2021	02/2022	Second Project Advisory Committee (PAC) convened (3 March 2022)
PM.2 Organise monthly, quarterly and annual meetings	On-track	07/2021	07/2021	07/2024	
PM.3 Project progress/final reporting and auditing	On-track	07/2021	07/2021	07/2024	
<b>Outcome A: Separation and valorization of organic and plastic waste to minimize waste landfilled at the Nduba Landfill site in Kigali</b>					
A.1.1 Develop a gender assessment and action plan for Outcome A	Delayed	07/2021	05/2022 (Consultant hired)	01/2022 (revised completion date 12/2022)	Consultant currently drafting report
A.1.2 Conduct detailed situation analysis to establish baseline	Delayed	07/2021	09/2022 (anticipated start date)	10/2022	Revised to waste characterization study
A.2.1 Separate organic and plastic waste on-site	Delayed	07/2021	01/2023 (anticipated start date)	07/2024	Procurement for Nduba equipment in progress.
A.2.2 Conduct feasibility studies of options for valorizing waste as resources	Not started	12/2022	Not started	07/2024	
A.2.3 Pilot 1-2 options for implementing effective waste to resources projects	Not started	12/2022	Not started	07/2024	
A.3.1 Develop training and communication materials based on Output A.1 and A.2	Not started	12/2022	Not started	07/2024	
A.3.2 Train Nduba site operator and on-site workers based on Output A.1 and A.2	On track	06/2022	First workshop occurred in May 2022	09/2024	
A.3.3 Carry out quarterly workshops with key government stakeholders	On track	07/2021	07/2021	07/2024	
A.4.1 Develop a business model for mobilising green investments	On track	03/2023	06/2022	07/2024	

Outcome B. Improved collection rate and management of e-waste in Kigali and Secondary Cities					
B.1.1 Develop a gender assessment and action plan for Outcome B	Delayed	07/2021	05/2022	4/2022	Consultant currently drafting.
B.1.2 Carry out a baseline assessment of e-waste management in Kigali and SCs	On track	09/2022	02/2022	(Revised completion date 12/2022)	
B.2.1 Install additional e-waste collection points in Kigali and Secondary Cities	Not started	09/2022	Not started	10/2022	-
B.2.2 Develop inventory tracking system of e-waste	Not started	07/2022	Not started	09/2023	-
B.3.1 Develop training and communication materials based on Output B.1 and B.2	On track	03/2022	02/2022	07/2023	Project Communications Plan including BCC strategy has been drafted.
B.3.2 Train city and district officials on e-waste management system	Not started	03/2023	Not started	09/2023	-
B.4.1 Information memorandum developed for mobilising green investments	Not started	09/2022	Not started	07/2024	Identified opportunity with cement manufacturer, potential off-taker of (RDF).
Outcome C: Improved policy and regulatory environment and enhanced capacity through skills development and knowledge exchange					
C.1.1 Carry out a gap analysis of municipal solid waste and e-waste	On track	3/2022	04/2022	03/2023	
C.1.2 Formulate policy recommendations and regulatory framework	On track	06/2022	12/2021	06/2023	
C.2.1 Carry out a needs assessment of municipal solid waste management	On track	09/2022	11/2021	6/2023	
C.2.2 Carry out a needs assessment of e-waste	Delayed	09/2021	04/2022	11/2022	Consultant has been hired and is currently drafting the needs assessment.
C.3.1 Organise peer-to-peer knowledge sharing with Luxembourg's partners	On track	09/2022	03/2022	07/2024	
C.4.1 Carry out targeted behaviour change of communities through communication	Delayed	12/2021	02/2022	07/2024	BCC plan has been developed with targeted activities planned in Q3 2022
C.4.2 Develop story of change material for knowledge and information sharing	On track	09/2021	12/2021	07/2024	

## 4.2. Output PM: Project Management

Status	Achieved
Output	Project Management, including the establishment of the project team and Steering Committee/Implementation Board
Activities carried out	<p>The project management team and Project Advisory Committee (PAC) were established. The second project advisory committee was convened on 3 March 2022. Covid-19 restrictions have eased and various site visits, meetings, calls have been carried out to convene with the government.</p> <p>These meetings/calls include:</p> <ul style="list-style-type: none"> <li>• 15 Feb 2022: Second Thematic Working Group meeting</li> <li>• 30-31 May 2022: Workshop on Towards an Effective Municipal Solid Waste Services for waste management service providers and MSW stakeholders.</li> <li>• 14-17 June 2022: Third Thematic Working Group meeting.</li> </ul>
Progress	<p>The core project team currently consists of the following staff members:</p> <ul style="list-style-type: none"> <li>• Michelle DeFreese, Senior Green Growth Officer (Project Manager and Outcome B focal point)</li> <li>• Juvenal Mukurarinda, Senior Officer, Sustainable Waste (Subject Matter Expert and Output A focal point)</li> <li>• Ange Irutingabo, Consultant (Capacity Needs Assessment)</li> <li>• Arlette Iyakaremye, Consultant (Gender Specialist)</li> <li>• Telesphore Kabera, Consultant (E-waste Specialist)</li> </ul> <p>In the next quarter, the project team will include the hiring of a GHG Data Analyst. The project continues to be supported by additional staff members including:</p> <ul style="list-style-type: none"> <li>• Daniel Ogbonnaya, GGGI Rwanda Country Representative (high-level support and government relations)</li> <li>• Pamela Birungi, Senior Communications and Knowledge Management Specialist (BCC and community outreach)</li> <li>• Vanessa Umuhorakaye, Senior Administrative Associate (financial backstopping) (currently Joyce Nyiraneza while Vanessa Umuhorakaye is completing a Special Assignment at GGGI HQ in Seoul, South Korea).</li> <li>• Jean Pierre Munyeshyaka, Senior Associate, Green Urbanization (Output C focal point)</li> <li>• Vamsi Duraibabu, Regional Investment Lead (green investment)</li> <li>• Luisa Kim, Senior Officer for Gender and Social Development (gender)</li> <li>• Andrew Kabera, Finance and Administration (procurement and administration)</li> <li>• Joyce Nyiraneza, Finance</li> <li>• Jerome Fakhry, Regional Waste Management Officer</li> </ul>
Any action required	No action required at this time.

### 4.3. Output A.1: Situation Assessment of Nduba Landfill Site

Status	In progress
Output	Develop a gender assessment and action plan, conduct detailed situation analysis to establish baseline
Activities carried out	A gender specialist has been hired as a consultant to prepare the gender assessment, action plan, and detailed situation analysis. The consultant has presented the inception report to the Technical Working Group during the meeting from 14-17 June 2022. The consultant incorporated the feedback into the inception report and overall approach.
Progress	The consultant has been provided with an introduction letter required to begin data collection. The consultant is in regular communication with the project team. A delimitation report for the designated area planned for the equipment procured as part of the project has been submitted to the City of Kigali. Site visits have been conducted to the Nduba landfill to assess the location of the equipment, engage with the local community leaders, and determine required needs as the designated location. These meetings have been documented, have engaged local officials, and have been sent via official community to the City Engineer of the City of Kigali.
Any action required	No action required at this time.

### 4.4. Output A.2: Feasibility Study and Piloting of Waste to Resources Options at Nduba

Status	In progress
Output	Separate organic and plastic waste on-site, conduct feasibility options for valorisation waste as resources, Pilot 1-2 options for implementing effective waste to resources projects.
Activities carried out	The procurement process is in progress and nearly complete. The hiring of the firm will enable the waste characterization study to be carried out and installation of the sorting equipment.
Progress	The separation of organic and plastic waste on-site will commence following the installation of the sorting and separation facility. The waste characterization study will enable a more accurate accounting of GHG emissions. The hiring of the GHG Data Analysis will assist in prioritising potential waste to resources options.
Any action required	No action required at this time.

### 4.5. Output A.3: Capacity Building Initiatives for Nduba Landfill Site Key Stakeholders

Status	In progress
Output	Develop training and communications materials, train Nduba site operator and on-site workers, carry out quarterly workshops with key government stakeholders
Activities carried out	A capacity needs assessment is being finalised which will highlight the need for key government stakeholders for proper waste management. A workshop took place from 30 to 31 May 2022 on Effective Municipal Solid Waste Management for key stakeholders involved in the management of Nduba landfill. The workshop report is included as Attachment 4: Workshop report on effective municipal solid waste management in the City of Kigali.
Progress	Bilateral meetings have taken place with key government stakeholders to inform them of project progress.
Any action required	No action required at this time.

#### 4.6. Output A.4: Information Memorandum Developed to Pitch to Potential Investors

Status	In progress
Output	Develop a business model for mobilising green investment.
Activities carried out	The project team has organised quarterly calls with the GGGI Regional Green Investment Specialist, Regional Investment Lead, Vamsi Duraibabu. The first information memo has been identified to develop a detailed business case and financial model for the production and use of RDF. Potential off-takers of RDF include cement producers and other industries.
Progress	Bilateral meetings and calls have taken place with the CIMERWA office in Kigali. Initial data have been shared describing the energy demands of the plant facility. An NDA was signed between CIMERWA and GGGI on 02 May 2022. A site visit to the cement production plant is planned for September 2022 to assess energy demands and feasibility of transitioning from the use of coal to RDF.
Any action required	No action required at this time.

#### 4.7. Output B.1: Situation Assessment of E-waste

Status	In progress
Output	Develop a gender assessment and action plan, carry out a baseline assessment of e-waste
Activities carried out	A consultant has been hired for the situation assessment of e-waste.
Progress	The consultants attended the 3rd technical working group, which took place from 14-17 June 2022 to present their inception reports and approach to key stakeholders of the project. The feedback from the technical working group was then incorporated into the approach and the consultants have both initiated data collection activities for their respective components of Output B.1.
Any action required	No action required at this time.

#### 4.8. Output B.2: E-waste Collection System Established in Kigali and in Secondary Cities

Status	In progress
Output	Develop an inventory tracking system for e-waste
Activities carried out	A bilateral meeting took place between GGGI and Wastezone, an e-waste recycling startup that is integrating the use of blockchain for traceability of electric and electronic waste in Rwanda. A Request for Quotation has been drafted for the procurement of an e-waste collection point to pilot first in the City of Kigali. The RFQ will be published in the next six months before the end of 2022.
Progress	The bilateral meetings took place on 31 January 2022 and 05 May 2022.
Any action required	No action required at this time. Once the RFQ is posted, the project team would appreciate it if it could be shared through the wider network of the Government of Luxembourg to attract potential submissions from interested parties.

#### 4.9. Output B.3: Capacity Building Initiatives on E-waste Management

Status	In progress
Output	Develop training and communication materials, Train city and district officials on e-waste management system
Activities carried out	The capacity needs assessment is currently being drafted. This will provide insights into the needs of city and district officials on e-waste management.
Progress	No capacity building initiatives on e-waste have taken place in the past six months.
Any action required	No action is required at this time.

#### 4.10. Output B.4: Information Memorandum Developed for Mobilizing Green Investments

Status	In progress
Output	Information memorandum developed for mobilising green investments
Activities carried out	No activities have been carried out at this point in project implementation.
Progress	The activities supporting this output will commence in Year 2 of the implementation of the project.
Any action required	No action is required at this time.

#### 4.11. Output C.1: Policy Recommendations for Improved Municipal SWM and E-waste

Status	In progress
Output	Carry out a gap analysis of municipal solid waste and e-waste, formulate policy recommendations and regulatory framework
Activities carried out	<p>The project team has engaged in bilateral meetings with the Private Sector Federation to discuss their project on PET plastic bottle recycling (24 March 2022) as well as REMA on their plans to introduce Extended Producer Responsibility (EPR) guidelines (14 February 2022). The project team has reviewed the guidelines and has identified potential policy recommendations.</p> <p>Also, the team had the opportunity to review and provide recommendations on the development of the National Integrated Solid waste management Strategy under the coordination of the Ministry of Infrastructure (MININFRA). The strategy was approved by the water and sanitation technical working group (8 February 2022).</p>
Progress	Policy recommendations on EPR guidelines have been developed specifically for plastic waste. The policy recommendations activity in support of this output will commence in July 2022.
Any action required	No action is required at this time.

#### 4.12. Output C.2: Capacity Needs Assessment of Solid Waste Stakeholders in Kigali and Secondary Cities

Status	In progress
Output	Carry out a needs assessment of municipal solid waste management, carry out a needs assessment of e-waste
Activities carried out	A consultant is in the process of collecting data for the capacity needs assessment for municipal solid waste (MSW).
Progress	The e-waste consultant has been hired and will provide the capacity needs assessment for e-waste. The consultant is currently collecting data and the final deliverable is expected by Q4 2022.
Any action required	No action is required at this time.

#### 4.13. Output C.3: Peer-to-peer Knowledge Sharing and Community Outreach

Status	In progress
Output	Organise peer-to-peer knowledge sharing and exchange visits with partners
Activities carried out	The project team completed a knowledge sharing exchange and study tour in Nairobi, Kenya, which included a visit to the Sanergy facilities, the largest organic waste processing facility in the region (7-11 March 2022). A bilateral call took place with the GGGI Philippines office to exchange knowledge between the projects and to gain insight into the procurement process for the installation of equipment (23 May 2022). A report on the knowledge exchange event is included in Attachment 2: Waste to Resources Training in Kenya Report (7-11 March 2022).
Progress	The project team is planning the study tour to Luxembourg to take place in Q1 of 2023.
Any action required	The project team has drafted a proposed itinerary and would like to confirm the dates as soon as possible in order to allow for the time required for travel clearances for the Government of Rwanda officials. In addition, the project team aims to facilitate experts from Luxembourg to participate in the upcoming World Circular Economy Forum (WCEF) from 6-8 December 2022 in Kigali and would appreciate recommendations of participants that could be included in the event as panellists, speakers, and as participants.

#### 4.14. Output C.4: Conduct Targeted Behaviour Change Communication for Communities

Status	In progress
Output	Carry out targeted behaviour change of communities through communication, develop story of change material for knowledge and information sharing
Activities carried out	A project communications plan including behaviour change communication strategy has been drafted.
Progress	The team has developed a project communications strategy/plan. Footage for a story of change video has been developed and will be launched at the project mid-point during the World Circular Economy Forum (WCEF) in December 2022.
Any action required	No action is required at this time.

## 5. Results

The table shows the latest results in accordance with the logframe indicators.

Indicator	Baseline	Target	Result as of June 2022	Status
IMPACT: Tonnes of carbon dioxide equivalent (tCO <sub>2</sub> eq) reduced or avoided) –GCF Performance Indicator	0	75,000	0	In progress
IMPACT: Number of green jobs created (sex-disaggregated)	0	50	0	In progress
IMPACT: Number of people who gained access to improved solid waste and e-waste management services	0	250,000	0	In progress
IMPACT: Cost per tCO <sub>2</sub> eq	0	13.96 EUR per tCO <sub>2</sub> eq	0	In progress
Outcome A. Increase in the volume of organic waste processed (tonnes/yr)	0	50,000	0	In progress
Outcome A. Increase in the volume of plastic waste processed (tonnes/yr)	0	2,000	0	In progress
Outcome A. Volume of finance leveraged	0	20M EUR total	0	In progress
Output A.1. Situational assessment developed and validated by key stakeholders (waste characterization study)	0	1	0	In progress
Output A.2. Pre-feasibility studies developed for waste to resources management options	0	2	0	In progress
Output A.3. Capacity needs and training materials developed	0	1	0	In progress
Output A.3. Number of individuals receiving training (sex-disaggregated)	0	100	51 <sup>1</sup> (12f/39m)	In progress
Output A.3. Proportion of individuals who report an improvement in capacity (%)	0	60%	0	In progress
Output A.4. Information memorandum with detailed project(s) specifications developed	0	1	0	In progress
Outcome B. Increase in volume of e-waste collected (tonnes/month)	0	600	0	In progress
Outcome B. Finance mobilised for improved e-waste collection and management (EUR)	0	TBD	0	In progress
Output B.1. Situational assessment developed and validated by key stakeholders	0	1	0	In progress

<sup>1</sup> Study Tour and Waste to Resources Training in Kenya, 7-11 March 2022 (10 participants); Workshop on Sustainable Waste Management Workshop, 20-21 April 2022 (17 participants); Workshop on Effective Municipal Solid Waste Management in City of Kigali, 30-31 May 2022 (24 participants).

Indicator	Baseline	Target	Result as of June 2022	Status
Output B.2. Launch of new e-waste collection systems	0	4	0	In progress
Output B.3. Capacity needs and training materials developed	0	1	0	In progress
Output B.3. Number of individuals receiving training (sex disaggregated)	0	100	103	Achieved
Output B.3. Proportion of individuals who report an improvement in capacity (%)	0	60%	94.6%	In progress
Output B.4. Information memorandum with detailed project(s) specifications developed	0	1	0	In progress
Outcome C. Number of new policies or guidelines for improved municipal solid waste and e-waste management adopted by the Government	0	1	0	Not started
Outcome C. Proportion of stakeholders who report an increase in capacity on solid waste and e-waste management (%)	0	60%	0	In progress
Output C.1. Number of policy recommendations or guidelines submitted to government for validation	0	1	0	Not started
Output C.1. Institutional and regulatory systems that improve incentives for low-emission planning and development and their effective implementation	0	1	0	Not started
Output C.1. Number and level of effective coordination mechanisms initiated	0	1	0	Not started
Output C.2. Capacity needs assessment report developed and submitted to the Project Steering Committee/Project Advisory Committee	1	1	0	In progress
Output C.3. Number of stakeholders who participate in knowledge sharing and exchange visits	0	20	10	In progress
Output C.3. Number of technologies and innovative solutions transferred or licensed to support low-emission development	0	1	0	Not started
Output C.4. BCC plan developed	0	1	1	Achieved
Output C.4. Number of community outreach events conducted	0	1	0	In progress

## 6. Partners & Stakeholders

The following table summarises our relationship with key partners and stakeholders during the reporting period:

Partner / Stakeholder	Relationship update
CIMERWA	CIMERWA, the largest cement producer in Rwanda, has drafted a sustainability plan and would like to engage with GGGI in order to phase-out their use of coal. The option to use Refuse-Derived Fuel (RDF) is a potential opportunity as similar initiatives done by the GGGI Cambodia team have resulted in securing an LOI for investing in plant upgrades for the use of RDF and landfill equipment required for the production of RDF by an off-taker, also a cement producer. The project team plans to visit the company's main cement production site in August 2022 to assess the potential for RDF.
City of Kigali	The relationship with the City of Kigali has steadily improved through close cooperation and communication. The City of Kigali has taken part in several of the Waste to Resources project workshops as well as bilateral meetings as needed in order to prepare for the arrival of the procured equipment for the Nduba landfill.
Ministry of Environment	The Ministry of Environment has also engaged closely with the project team through the focal point and has participated in the study tour carried out in Nairobi, Kenya from 6-11 March 2022 and all Technical Working Groups. The Ministry of Environment has led in the convening of the Project Advisory Committee (PAC) meetings.
Ministry of Infrastructure	The relationship with the Ministry of Infrastructure has been continuously maintained. MININFRA has taken part in workshops and the Technical Working Group meetings. MININFRA remains a strong partner for the implementation of the project.
Depot Kalisimbi	The project team has remained in close contact with Depot Kalisimbi and has engaged in bilateral calls, are present during site visits, as well as meetings to determine the location and placement of the incoming equipment. The close collaboration has been facilitated by the project team to enable a smooth transition in the operation and maintenance of the equipment once the new facilities are operational.
COPED	COPED successfully submitted the selected proposal for the installation of the weighbridge. Regular communication with COPED has been initiated to ensure timely delivery and handover of the weighbridge.
Enviroserve	Enviroserve has remained a close stakeholder during project implementation. Closer collaboration is expected in Year 2 of the project. GGGI was also recognized as a project partner during their 6-week e-waste campaign to encourage increased collection from the general public.
Nduba Sector (sub-national government)	The Senior Waste Management Specialist has included representatives from the Nduba Sector regarding the placement of the equipment and communication with the community surrounding the dumpsite.

## 7. Challenges, Solutions & Lessons Learned

The following table summarises the challenges we have faced during the reporting period and the lessons learned / solutions for each challenge.

Challenge	Lessons learned / solutions
Community Engagement	Local community members are currently using land designated for the project at the dumpsite for cultivating crops. 16 out of 17 community members removed their crops except for one person who has refused unless she is compensated. A visit was organised at the designated site for waste to resources project, (together with GGGI, Nduba dumpsite operator and Nduba sector inspector) on 30 June 2022. Lesson learned is to work closely with the sub-national government authorities, site operator, and municipal government to communicate the aims of the project with the local community to avoid complications prior to the installation of new equipment.
E-waste Collection Point Design	The current e-waste collection points have low collection rates. This is due to a combination of lack of incentives, lack of awareness, and inconvenient placement of the collection points. The lessons learned from the current e-waste collection points will be used to optimise the design of the collection points that will be procured in Year 2 of the project.
Gender Gap	There is a disproportionate number of male participants in the workshops, training sessions, and meetings organised that focus on the waste sector. A concerted effort is needed to encourage female participants to engage in the sector. These issues are to be addressed in the gender assessment and cost action plan.
Investment Mobilisation	The project has yet to secure an LOI for green investment mobilisation (despite early action and activities to engage with potential investors). A concerted effort will need to be made to ensure the target of 20M EUR is reached during the implementation of the project. Early interests from Scania and Sanergy have not materialised into investment commitments. The project team plans to use regional and international events to identify additional potential investors and attract the necessary climate finance either in terms of carbon credits, equity or debt financing, or other means to reach the project investment mobilisation targets.

## 8. Budget

Summary of the expenditure during the reporting period compared to the original budget for year 1 and expenditure to-date. Detailed financial reporting will be separate in excel format.

Main Budget heading	Budget for year 1 (Jul 21-June 22) USD	Expenditure (Jul 21- Dec 21) USD	Expenditure (Jan-June 22) USD	Total expenditure to date (from Jul 21-June 22) USD
Personnel	478,070	122,594	207,059	329,652
Outsourcing	271,000	0	32,589	32,589
Workshops, Events & Capacity Building (including Travel)	29,376	9,708	36,892	46,601
Communications and Outreach	29,376	3,496	16,878	20,374
Facilities and Equipment	1,210,000	0	0	0
Professional (Audit)	15,000	0	0	0
Office Equipment and Operations	15,600	3,489	9,281	12,771
Others (incl. Bank commission)	3,000	70	654	723.70
Overhead	272,639	181,16	39,431	57,547
<b>TOTAL (USD)</b>	<b>2,369,861</b>	<b>139,357</b>	<b>342,784</b>	<b>500,258</b>

## Annex 1 - Updated Work Plan

Outcome/Output/Activities		Year 1				Year 2				Year 3			
		Q1 Oct 2021	Q2 Jan 2022	Q3 Apr 2022	Q4 Jul 2022	Q1 Oct 2022	Q2 Jan 2023	Q3 Apr 2023	Q4 Jul 2023	Q1 Oct 2023	Q2 Jan 2024	Q3 Apr 2024	Q4 Jul 2024
<b>Cross-cutting Output: Project Management</b>													
PM.1	Establish project team and Steering Committee/Implementation Board												
PM.2	Organise monthly, quarterly, and annual meetings												
PM.3	Project progress/final reporting and auditing												
<b>Outcome A: Separation and valorization of organic and plastic waste</b>													
<b>Output A.1 Situation assessment of Nduba Landfill site</b>													
A.1.1	Develop a gender assessment and action plan for Outcome A												
A.1.2	Conduct waste characterization study, market assessment and financials models for recyclables												
<b>Output A.2 Feasibility study and piloting of waste to resources options at Nduba</b>													
A.2.1	Separate organic and plastic waste on-site												
A.2.2	Conduct feasibility studies of options for valorizing waste as resources												
A.2.3	Pilot 1-2 options for implementing effective waste to resources projects												
<b>Output A.3 Capacity building initiatives for Nduba Landfill site key stakeholders</b>													
A.3.1	Develop training and communication materials based on Output A.1 and A.2												
A.3.2	Train Nduba site operator and on-site workers based on Output A.1 and A.2												
A.3.3	Carry out quarterly workshops with key government stakeholders												
<b>Output A.4 Information memorandum developed to pitch to potential investors</b>													
A.4.1	Develop a business model for mobilising green investments												
<b>Outcome B: Improved collection rate and management of e-waste in Kigali and SCs</b>													
<b>Output B.1 Situation assessment of e-waste</b>													
B.1.1	Develop a gender assessment and action plan for Outcome B												
B.1.2	Carry out a baseline assessment of e-waste management in Kigali and SCs												





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