



Project Implementation Report

(1 July 2023 – 30 June 2024)

| Project Title: | Sustainable conversion of waste to clean energy for greenhouse gas (GHG) emission reduction |
|--|---|
| GEF ID: | 5154 |
| UNIDO ID: | 120568 |
| GEF Replenishment Cycle: | GEF-5 |
| Country: | Kenya |
| Region: | AFR |
| GEF Focal Area: | Climate Change Mitigation (CCM) |
| Integrated Approach Pilot (IAP) Programs1: | N/A |
| Stand-alone / Child Project: | Stand-alone |
| Implementing Department/Division: | TCS/DSE/CTI |
| Co-Implementing Agency: | N/A |
| Executing Agency(ies): | N/A |
| Project Type: | MSP |
| Project Duration: | 60 |
| Extension(s): | 4 |
| GEF Project Financing: | USD 1,999,998 |
| Agency Fee: | USD 190,000 |
| Co-financing Amount: | USD 9,824,718 |
| Date of CEO Endorsement/Approval: | 9/2/2015 |
| UNIDO Approval Date: | 10/15/2015 |
| Actual Implementation Start: | 11/2/2015 |
| Cumulative disbursement as of 30 June 2024: | USD 1,972,405.46 |
| Mid-term Review (MTR) Date: | 2/15/2021 |
| Original Project Completion Date: | 10/15/2019 |
| Project Completion Date as reported in FY23: | 6/30/2023 |
| Current SAP Completion Date: | 6/30/2023 |
| Expected Project Completion Date: | 6/30/2023 |

¹ Only for **GEF-6 projects**, if applicable

| Expected Terminal Evaluation (TE) Date: | 6/30/2023 |
|---|---------------|
| Expected Financial Closure Date: | 12/22/2023 |
| UNIDO Project Manager ² : | Alois Mhlanga |

I. Brief description of project and status overview

Project Objective

The project aims at promoting the conversion of waste to clean energy as an alternative source of electricity generation. The main objective is to promote investments in waste-to-energy (WTE) technologies to increase the electrification rate as well as to reduce greenhouse gases (GHG) emissions in the country. The most promising waste sectors for electricity generation from the conversion of WTE are the municipal waste and agro industrial residues. Due to the advantages of agro-industrial residue over municipal waste, the agro-industrial sector has been selected for demonstrating WTE (biogas) power plants while at the same time enhancing the processing of agro-produce to be more efficient and sustainable.

Baseline

In Kenya, agro-industrial wastes are generally underutilized and in most cases disposed of by burning, dumping or unplanned landfilling. Dumping and unplanned landfilling results in methane generation and its subsequent release into the atmosphere. Methane is a stronger GHG than carbon dioxide. Hence, the avoidance of its release to the atmosphere or its utilization holds great environmental benefits in terms of mitigating GHG emissions and adapting to climate change. It has been estimated that industrial-scale power/co-generation using biogas produced from agricultural residue could abate 1.6 million CO2 per year.

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e. FY24. Please also provide a short justification for the selected ratings for FY24.

In view of the GEF Secretariat's intent to start following the ability of projects to adopt the concept of adaptive management³, Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e. FY23, in the last column.

| Overall Ratings ⁴ | FY24 | FY23 | |
|--|------------------------------|------------------|--|
| Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating | Moderately Satisfactory (MS) | Satisfactory (S) | |
| The project was operationally closed in June 2023, therefore there have not been any updates since then. | | | |
| Implementation Progress (IP) Rating | Satisfactory (S) | Satisfactory (S) | |

² Person responsible for report content.

³ Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

⁴ Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

| The project was operation then. | nally closed in June 2023, therefore th | ere have not been any updates since | |
|--|---|-------------------------------------|--|
| Overall Risk Rating Low Risk (L) Low Risk (L) | | | |
| The project was operationally closed in June 2023, therefore there have not been any updates since then. | | | |

II. Targeted results and progress to-date

Please describe the progress made in achieving the outputs against key performance indicator's targets in the project's **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

| Project Strategy | KPIs/Indicators | Baseline | Target level | Progress in FY24 | | |
|--|---|---|---|---|--|--|
| Component 1 - Capacity d | Component 1 – Capacity development and knowledge management | | | | | |
| Outcome 1.1: Improved awa | reness, knowledge sh | aring on best practices | and capacity building | on WTE in the Country | | |
| Output 1.1.1: Information and best practices platform (IBPP) for WTE technologies established at KIRDI | Business plan and annual work plans created. Creation and operation of the centre | Lack of one-stop technical centre on biogas | Business plan and annual work plan creation with first 3 months of the GEF project start. Creation and operation of the center within 6 months of the GEF project start. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | | |
| Output 1.1.2: : Development of human capacities in WTE for policy makers (at least 50 policy makers), project developers, agro- industries, and other stakeholders (at least 50 persons) | 1. Number of trainings organized for policy makers 2. Number of trainings organized for different target groups 3. Number of key policy makers trained (% of female/male participants) 4. Number of persons (from other target groups) trained (% of female/male participants) 5. Number of female trainers | Inadequate capacity among the key policy makers & project developers | 1.Conduct at least 2 trainings for policy makers 2. Conduct at least 2 trainings for other target groups 3. Educate and train at least 50 policy makers on WTE potential, technology and project development 4. Train at least 50 personnel from each of the target groups 5. Include at least 20% (of the total participants) women in each training | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | | |
| Output 1.1.3: Development and strengthening of institutional capacities in the area of WTE among technical institutions and financial institutions (at least 50 persons from each group) | Number of trainings organized Number of persons trained (% of female/ male participants) Number of female trainers | Insufficient local capacity to develop, support, operate &maintain WTE plants | 1. Conduct at least 2 trainings 2. Train at least 50 personnel from different target groups 3. Include at least 20%(of the total participants) women | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | | |

| | | | in each training | | |
|--|--|--|--|---|--|
| Component 2 – Establishment of agro-industrial WTE plants | | | | | |
| Outcome 2.1: Increased use | of biogas for energy g | generation | | | |
| 2.1.1 Establishment of standards for medium and large scale biogas power plants | Number of standards | Back in 2015, at the project inception phase, no standards existed for biogas power plants. KEBS & ERC were the responsible entities for the design and enforcement of the biogas standard. | Early enforcement of the proposed standard | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| Output 2.1.2: Detailed plant design prepared for WTE plants | Project progress status | Lack of plant design reports for further project development. | Detailed plant design reports for the demonstration projects | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| Output 2.1.3.: WTE plants established for a cumulative capacity of around 1,856 kWe and 1,397 kWth | MW of installed capacity | Inadequate commercial WTE plants. Agro-industries depend on (fossilfuel dominated based) electricity and fossil fuel such as fuel oil for thermal energy needs. | 1,856 kWe and 1,397 kWth plants supplying electricity and thermal energy respectively | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| Component 3 – Scaling up | investment in WTE p | plants | | | |
| Outcome 3.1: Establishment | Outcome 3.1: Establishment and implementation of incentive systems for WTE technologies | | | | |
| Output 3.1.1: Establishment and implementation of incentive systems for WTE technologies | USD incentives based on incremental cost principle to WTE projects 2. Number of project developers benefitted through the incentive facility | Inadequate financing facilities to attract investments in WTE projects | USD 4 million incentive facility established At least 15 replication project benefitted under the facility | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |

III. Project Risk Management

1. Please indicate the <u>overall project-level risks and the related risk management measures</u>: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

| | (i) Risks at CEO stage | (i) Risk level FY 23 | (i) Risk level FY 24 | (i) Mitigation measures | (ii) Progress to-date | New defined risk ⁵ |
|--|---------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-------------------------------|
|--|---------------------------|-------------------------|-------------------------|-------------------------|-----------------------|-------------------------------|

⁵ New risk added in reporting period. Check only if applicable.

| | | T | T | T | | |
|---|--|--------------|--------------|--|---|--|
| 1 | Lack of human and institutional capacity impedes large scale penetration of WTE technology | Low Risk (L) | Low Risk (L) | The training was conducted for the experts, operators, government agencies, etc. Capacity building and transfer of technology will mitigate the technical risk. As Kenya already has the technology for domestic biogas plants, further development on commercial biogas plants can be achieved with lesser difficulty. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| 2 | General perception that WTE investments yield low returns, hence the investors are not willing to invest. | Low Risk (L) | Low Risk (L) | Detailed techno-economic feasibility studies were carried out to establish the financial viability of the demonstration projects. Moreover, financial incentives are in place to attract investments in WTE. Increased awareness, knowledge and experiences created by the successful operation of the demonstration plants are expected to enhance the stakeholders' participation. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| 3 | No off-takers for the generated electricity. | Low Risk (L) | Low Risk (L) | The demand-supply gap is very high in Kenya and hence, there is no market risk. Off-takers for each plant will be decided during the feasibility study. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| 4 | Application of WTE technology might be in halt by the shortage of inputs | Low Risk (L) | Low Risk (L) | Installations were only done after the conducting of proper resource assessment to ensure the supply of wastes from industries. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| 5 | Inadequate availability of trained plant operators. | Low Risk (L) | Low Risk (L) | The O&M staff will be trained at the information and best practices platform (IBPP) and will undergo on-the-job training in an existing biogas plant. Moreover, designated O&M staff at the the demonstration projects will be trained by the respective suppliers. Additionally, local engineering and O&M companies will be trained in O&M of WTE plants. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| 6 | Floods | Low Risk (L) | Low Risk (L) | Biogas plant buildings and site offices will be located on elevated areas to prevent flooding. All buildings and structures will be designed and built appropriately to avoid flooding. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |
| 7 | Kenya's electricity mix greatly depends on hydropower (presently 50%). Due to the changing weather patterns which significantly affect the energy sector, hydropower is highly vulnerable to weather conditions and climate changes. | Low Risk (L) | Low Risk (L) | Utilization of waste for electricity generation will reduce the dependency on hydropower. | The project was operationally closed in June 2023, therefore there have not been any updates in FY24. | |

2. If the project received a <u>sub-optimal risk rating (H, S)</u> in the previous reporting period, please state the <u>actions taken</u> since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting cycle; please indicate actions planned for the next reporting cycle to remediate this.

| N.A. | | |
|------|--|--|
| | | |

3. Please clarify if the project is facing delays and is expected to request an extension.

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

4. Please provide the **main findings and recommendations of completed MTR**, and elaborate on any actions taken towards the recommendations included in the report.

In early 2021, considering the remaining project period and changing circumstances as a result of the COVID-19 pandemic, the project team initiated the mid-term monitoring and evaluation of the project by engaging a local expert and prepared a report. As per the main findings of the report, the project demonstrated good progress towards the delivery of all key outputs and tangible results were already observed. It was observed that the activities supported by the project would deliver their objectives and outcomes satisfactorily by project closure. The report further highlighted that all the major activities were already completed but identified the following items that needed attention in project execution: (i) the Information and Best Practices Platform (IBPP) for WTE technologies, which was in its final stages of being established at KIRDI, and (ii) the development of industrial biogas standards requiring a multi-stakeholder review of the draft report and the convening of a workshop to produce the final standards document. These two pending activities experienced delays due to the COVID-19 pandemic (and subsequent confinement measures) since they required in-person engagement.

As the main conclusions of the report in terms of <u>relevance</u>, it was verified that the project design and implementation were relevant and aligned with the national policies for the promotion of renewable energies, the priority areas for UNDAF and it also corresponded to the national WTE related areas of training, institutional strengthening, awareness, and the regulatory environment. Concerning <u>effectiveness</u>, the implementation of project activities and products obtained generated positive effects that contributed to enhancing investments in WTE technologies. With regard to <u>efficiency</u>, the report concluded that the organizational structure and available resources were adequate to implement the necessary activities, however noted the experienced delays⁶ in the technical implementation of the project. Furthermore, a gender perspective was included, and activities specifically aimed at meeting the needs and interests of women were taken into account. With respect to the sustainability of the project, the report concluded that it was highly likely for the benefits derived from the project to be maintained after the conclusion of the project.

As a recommendation, the report emphasized the relevance of the positive externalities of WTE generation, which should be made more explicit, particularly in comparison with other renewable energies. The report proposed that it could positively facilitate the diversification of energy resources which may improve access to finance for similar initiatives.

IV. Environmental and Social Safeguards (ESS)

| 1. As part of the requirements for projects from GEF-6 onwards , and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project? |
|---|
| ☐ Category A project |
| ☐ Category B project |
| ☐ Category C project |
| (By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B). |
| Notes on new risks: |

⁶ As detailed in the other relevant sections of this report regarding the delays due to the Covid-19 pandemic, import issues of plant materials, and political constraints of land leasing agreements.

- If new risks have been identified during implementation due to changes in, i.e. project design or context, these should also be listed in (ii) below.
- If these new/additional risks are related to Operational Safeguards # 2, 3, 5, 6, or 8, please consult with UNIDO GEF Coordination to discuss next steps.
- Please refer to the UNIDO <u>Environmental and Social Safeguards Policies and Procedures</u> (ESSPP) on how to report on E&S issues.

Please expand the table as needed.

| | E&S risk | Mitigation measures undertaken during the reporting period | Monitoring methods and procedures used in the reporting period |
|---|---|--|--|
| (i) Risks identified in ESMP at time of CEO Endorsement | Not Applicable as this project is under GEF-5 cycle. | N.A. | N.A. |
| (ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box) | Not Applicable as this project is under GEF-5 cycle. | N.A. | N.A. |

V. Stakeholder Engagement

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

2. Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

3. Please provide any relevant stakeholder consultation documents.

N.A.

VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress** achieved **on implementing gender-responsive measures** and **using gender-sensitive indicators**, as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent),.

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

VII. Knowledge Management and Communication

| The | project was operationally closed in June 2023, th | perefore there have not been any updates in FY24. |
|----------------|---|---|
| | ease list any relevant knowledge managemen ct has generated. | t and communication mechanisms / tools that the |
| The | project was operationally closed in June 2023, th | perefore there have not been any updates in FY24. |
| | VIII. Imagilana ant | |
| | | tation progress ase provide information on progress, challenges and t implementation. |
| The | project was operationally closed in June 2023, th | perefore there have not been any updates in FY24. |
| durin Pleas | g the implementation period or indicate as not app | curred and provide a description of the change in the |
| | Results Framework | |
| | Components and Cost | |
| | Institutional and Implementation Arrangements | |
| | Financial Management | |
| | Implementation Schedule | |
| | Executing Entity | |
| | Executing Entity Category | |
| | Minor Project Objective Change | |
| | Safeguards | |
| | Risk Analysis | |
| | Increase of GEF Project Financing Up to 5% | |
| | Co-Financing | |
| | Location of Project Activities | |
| | Others | |
| The | ease provide progress related to the financial imporproject was operationally closed in June 2023 | plementation of the project. B. The Project grant has been financially closed on |

⁷ As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

IX. Work Plan and Budget

1. Please provide **an updated project work plan and budget** for <u>the remaining duration of the project</u>, as per last approved project extension. Please expand/modify the table as needed.

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

| UNIDO | GRANT DELIVERY | REPORT | Grant: | 2 | 000003217 | Gran | t Status: | Closed | Grant Va | alidity: | 02.11.2015 - 3 | 30.06.2023 |
|---------|--|------------------------------------|-----------------------------|--------------------------|--|--------------------|------------------|----------|-----------|---------------------|----------------|-----------------------|
| | SIGNI BELIVER REI GR | | Sponsor: | | 00150 - GEF - Global invironment Facility | Curre | ency: | USD Repo | | ng Period: | 02.11.2015 - 3 | 30 06 2024 |
| | | | Other Refere | ence: 5 | 154-U3-PJ-MS-GR-01 | Fund | : | GF | Prepare | d on: | 06.09.2024 | |
| Project | Project Description | | Country | F | tegion | Proje | ct Manager | | | | Project Valid | ity |
| 120568 | SUSTAINABLE CONVERSION OF WASTE INTO CLEAN ENERGY TO REDUCE GHG EMISSIONS IN KENYA | | Kenya | A | frica | Naok | Torii | | | | 12.11.2015 - 3 | 30.06.2023 |
| | Description | Released Budget Current Year | Obligations Current Year | Disburseme Current Ye | ear Current Year | Total Agreement | Release Budge | | gations + | Funds Available* | Support Cost | Total Expenditures |
| | | (a) | (b) | (c) | (d=b+c) | Budget (e) | (f) | | (g) | (h=f-g) | Choose sid | debar displa |

| | Description | Released Budget Current Year | Obligations Current Year (b) | Disbursements Current Year (c) | Expenditures Current Year (d=b+c) | Total Agreement Budget (e) | Released Budget (f) | Obligations + Disbursements (g) | Funds Available* (h=f-g) | Support Cost | Total Expenditures |
|----------------|--|------------------------------------|------------------------------------|--------------------------------------|---|----------------------------------|---------------------------|---------------------------------------|--------------------------------|--------------|-----------------------|
| | | (a) | (6) | (0) | (u-b·c) | Dauget (e) | (1) | (9) | (II-I-g) | Choose sid | ebar displa |
| 120568 | | | | | | | | | | | |
| 120568-1-02-01 | OP 1: Capacity Building on WTE | USD | USD | USD | USD | USD | USD | USD | USD | USD | USD |
| 1500 | Local Travel | 0.00 | 0.00 | 0.00 | 0.00 | (1,188.61) | (1,188.61) | 265.55 | (1,454.16) | 0.00 | 265.58 |
| 1600 | Staff Travel | 0.00 | 0.00 | 0.00 | 0.00 | (202.00) | (202.00) | (236.85) | 34.85 | 0.00 | (236.85 |
| 2100 | Contractual Services | 0.00 | 0.00 | 0.00 | 0.00 | 556.38 | 556.38 | 40.95 | 515.43 | 0.00 | 40.95 |
| 5100 | Other Direct Costs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9300 | Support Cost IDC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2,650.34 | 2,650.34 |
| 120568-1-02-01 | Total | 0.00 | 0.00 | 0.00 | 0.00 | (834.23) | (834.23) | 69.65 | (903.88) | 2,650.34 | 2,719.99 |
| 120568-1-03-01 | OP 2: Biogas for Energy Generation | USD | USD | USD | USD | USD | USD | USD | USD | USD | USD |
| 1700 | Nat.Consult./Staff | 0.00 | 0.00 | 0.00 | 0.00 | (875.07) | (875.07) | 0.00 | (875.07) | 0.00 | 0.00 |
| 2100 | Contractual Services | 0.00 | 0.00 | 0.00 | 0.00 | 379.42 | 379.42 | 33.99 | 345.43 | 0.00 | 33.99 |
| 5100 | Other Direct Costs | 0.00 | 0.00 | 0.00 | 0.00 | (4,123.44) | (4,123.44) | (4,123.44) | 0.00 | 0.00 | (4,123.44 |
| 9300 | Support Cost IDC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (388.50) | (388.50 |
| 120568-1-03-01 | Total | 0.00 | 0.00 | 0.00 | 0.00 | (4,619.09) | (4,619.09) | (4,089.45) | (529.64) | (388.50) | (4,477.95 |
| 120568-1-04-01 | OP 3: Establishment of incentive systems | USD | USD | USD | USD | USD | USD | USD | USD | USD | USD |
| 1500 | Local Travel | 0.00 | 0.00 | 0.00 | 0.00 | 390.00 | 390.00 | 390.00 | 0.00 | 0.00 | 390.00 |
| 1600 | Staff Travel | 0.00 | 0.00 | 0.00 | 0.00 | (390.00) | (390.00) | (390.00) | 0.00 | 0.00 | (390.00 |
| 2100 | Contractual Services | 0.00 | 0.00 | 0.00 | 0.00 | (5,050.84) | (5,050.84) | 54.89 | (5,105.73) | 0.00 | 54.89 |
| 9300 | Support Cost IDC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 42.26 | 42.26 |
| 120568-1-04-01 | Total | 0.00 | 0.00 | 0.00 | 0.00 | (5.050.84) | (5,050.84) | 54.89 | (5,105.73) | 42.26 | 97.15 |

^{*} Does not include Unapproved Obligations

The above statement has been certified electronically by the designated officials in UNIDO's Financial Services.

| UNIDO | GRANT DELIVERY REPORT | Grant: | 2000003217 | Grant Status: | Closed | Grant Validity: | 02.11.2015 - 30.06.2023 |
|---------|--|------------------|---|-----------------|--------|-------------------|-------------------------|
| | | Sponsor: | 400150 - GEF - Global Environment Facility | Currency: | USD | Reporting Period: | 02.11.2015 - 30 06 2024 |
| | | Other Reference: | 5154-U3-PJ-MS-GR-01 | Fund: | GF | Prepared on: | 06.09.2024 |
| Project | Project Description | Country | Region | Project Manager | | | Project Validity |
| 120568 | SUSTAINABLE CONVERSION OF WASTE INTO CLEAN ENERGY TO REDUCE GHG EMISSIONS IN KENYA | Kenya | Africa | Naoki Torii | | | 12.11.2015 - 30.06.2023 |

| | Description | Released Budget Current Year (a) | Obligations Current Year (b) | Disbursements Current Year (c) | Expenditures Current Year (d=b+c) | Total Agreement Budget (e) | Released Budget (f) | Obligations + Disbursements (g) | Funds Available* (h=f-g) | Support Cost (i) | Total Expenditures (j=g+i) |
|----------------|---------------------------------|---|------------------------------------|--------------------------------------|---|----------------------------------|---------------------------|---------------------------------------|--------------------------------|---------------------|----------------------------------|
| 120568-1-05-01 | Project Management Cost | USD | USD | USD | USD | USD | USD | USD | USD | USD | USD |
| 1100 | Staff & Intern Consultants | 0.00 | 0.00 | 0.00 | 0.00 | 1,007.61 | 1,007.61 | 724.97 | 282.64 | 0.00 | 724.97 |
| 1500 | Local Travel | 0.00 | 0.00 | 0.00 | 0.00 | (19,851.70) | (19,851.70) | 1,024.14 | (20,875.84) | 0.00 | 1,024.14 |
| 1600 | Staff Travel | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (69.70) | 69.70 | 0.00 | (69.70) |
| 1700 | Nat.Consult./Staff | 0.00 | 0.00 | 0.00 | 0.00 | 2,331.38 | 2,331.38 | 82.65 | 2,248.73 | 0.00 | 82.65 |
| 2100 | Contractual Services | 0.00 | 0.00 | 0.00 | 0.00 | (6,629.43) | (6,629.43) | 30.76 | (6,660.19) | 0.00 | 30.76 |
| 3000 | Train/Fellowship/Study | 0.00 | 0.00 | 0.00 | 0.00 | 1,014.01 | 1,014.01 | 153.80 | 860.21 | 0.00 | 153.80 |
| 3500 | International Meetings | 0.00 | 0.00 | 0.00 | 0.00 | 17,003.31 | 17,003.31 | 609.08 | 16,394.23 | 0.00 | 609.08 |
| 4500 | Equipment | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5100 | Other Direct Costs | 0.00 | 0.00 | 0.00 | 0.00 | 2,307.82 | 2,307.82 | (30.93) | 2,338.75 | 0.00 | (30.93) |
| 9300 | Support Cost IDC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 246.33 | 246.33 |
| 120568-1-05-01 | Total | 0.00 | 0.00 | 0.00 | 0.00 | (2,817.00) | (2,817.00) | 2,524.77 | (5,341.77) | 246.33 | 2,771.10 |
| 120568-1-51-01 | Effective Assessment of Outputs | USD | USD | USD | USD | USD | USD | USD | USD | USD | USD |
| 1100 | Staff & Intern Consultants | 0.00 | 0.00 | 0.00 | 0.00 | (13,647.81) | (13,647.81) | 78.14 | (13,725.95) | 0.00 | 78.14 |
| 1700 | Nat.Consult./Staff | 0.00 | 0.00 | 0.00 | 0.00 | (581.91) | (581.91) | (581.91) | 0.00 | 0.00 | (581.91) |
| 5100 | Other Direct Costs | 0.00 | 0.00 | 0.00 | 0.00 | (41.66) | (41.66) | (41.66) | 0.00 | 0.00 | (41.66) |
| 9300 | Support Cost IDC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | (51.82) | (51.82) |
| 120568-1-51-01 | Total | 0.00 | 0.00 | 0.00 | 0.00 | (14,271.38) | (14,271.38) | (545.43) | (13,725.95) | (51.82) | (597.25) |
| 120568 | Total | 0.00 | 0.00 | 0.00 | 0.00 | (27,592.54) | (27,592.54) | (1,985.57) | (25,606.97) | 2,498.61 | 513.04 |
| 2000003217 | USD Total | 0.00 | 0.00 | 0.00 | 0.00 | (27,592.54) | (27,592.54) | (1,985.57) | (25,606.97) | 2,498.61 | 513.04 |

^{*} Does not include Unapproved Obligations

The above statement has been certified electronically by the designated officials in UNIDO's Financial Services.

X. Synergies

1. Synergies achieved:

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

3. Stories to be shared (Optional)

The project was operationally closed in June 2023, therefore there have not been any updates in FY24.

XI. GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as OpenStreetMap or GeoNames use this format. Consider using a conversion tool as needed, such as: https://coordinates-converter.com Please see the Geocoding User Guide by clicking here.

| Location Name | Latitude | Longitude | Geo Name ID | Location and Activity Description |
|------------------|------------|-----------|-------------|--|
| Nairobi | - 1.288787 | 36.83295 | 184745 | Nairobi is the main project location for the project stakeholders and related activities of KEBS, KIRDI, and Tropical Power plant. |
| Murang'a | - 0.76762 | 37.25898 | 185578 | Location of the Olivado plant. |
| Eldoret | - 0.517763 | 35.26577 | 198629 | Location of the Timber Treatment International plant. |



EXPLANATORY NOTE

- 1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2023 30 June 2024.
- 2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.
- 3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.
- 4. **Results-based management**: The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

| Global Envir | Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings | | | | | |
|-----------------------------------|---|--|--|--|--|--|
| Highly Satisfactory (HS) | Project is expected to achieve or exceed <u>all</u> its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice". | | | | | |
| Satisfactory (S) | Project is expected to <u>achieve most</u> of its <u>major</u> global environmental objectives, and yields satisfactory global environmental benefits, with only minor shortcomings. | | | | | |
| Moderately Satisfactory (MS) | Project is expected to <u>achieve most</u> of its major <u>relevant</u> objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits. | | | | | |
| Moderately Unsatisfactory (MU) | Project is expected to achieve <u>some</u> of its major global environmental objectives with major shortcomings or is expected to <u>achieve only some</u> of its major global environmental objectives. | | | | | |
| Unsatisfactory (U) | Project is expected <u>not</u> to achieve <u>most</u> of its major global environmental objectives or to yield any satisfactory global environmental benefits. | | | | | |
| Highly Unsatisfactory (HU) | The project has failed to achieve, and is not expected to achieve, <u>any</u> of its major global environmental objectives with no worthwhile benefits. | | | | | |

| | Implementation Progress (IP) |
|-----------------------------------|---|
| Highly Satisfactory (HS) | Implementation of <u>all</u> components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice". |
| Satisfactory (S) | Implementation of <u>most</u> components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action. |
| Moderately Satisfactory (MS) | Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action. |
| Moderately Unsatisfactory (MU) | Implementation of <u>some</u> components is <u>not</u> in substantial compliance with the original/formally revised plan with most components requiring remedial action. |
| Unsatisfactory (U) | Implementation of <u>most</u> components in <u>not</u> in substantial compliance with the original/formally revised plan. |
| Highly Unsatisfactory (HU) | Implementation of <u>none</u> of the components is in substantial compliance with the original/formally revised plan. |

| Risk ratings | | | | | | |
|----------------------|--|--|--|--|--|--|
| | Risk ratings will access the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale: | | | | | |
| High Risk (H) | There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks. | | | | | |
| Substantial Risk (S) | There is a probability of between 51% and 75% that assumptions may fail to hold or materialize, and/or the project may face substantial risks. | | | | | |
| Moderate Risk (M) | There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/or the project may face only moderate risk. | | | | | |
| Low Risk (L) | There is a probability of up to 25% that assumptions may fail to hold or materialize, and/or the project may face only low risks. | | | | | |