

Project Implementation Report

(1 July 2020 – 30 June 2021)

Project Title:	Promotion of Waste to Energy Applications in Agro-Industries of Tanzania
GEF ID:	4873
UNIDO SAP ID:	140077
GEF Replenishment Cycle:	GEF-5
Country(ies):	United Republic of Tanzania
Region:	Africa
GEF Focal Area:	Climate Change Mitigation (CCM)
Integrated Approach Pilot (IAP) Programs¹:	N.A.
Stand-alone / Child Project:	Stand-alone
Implementing Department/Division:	ENE
Co-Implementing Agency (if applicable):	N.A.
Executing Agency(ies):	Ministry of Energy, Vice President Office- Environment Division
Other Project Partners:	TANESCO, REA, DIT and COSTECH
Project Type:	Full-Sized Project (FSP)
Project Duration (months):	48
Extension(s):	24
GEF Project Financing:	5,025,714
Agency Fee:	527,700
Co-financing Amount:	26,750,000
Date of CEO Endorsement/Approval:	12/17/2014
UNIDO Approval Date:	05/28/2014
Actual Implementation Start Date:	02/10/2015
Cumulative disbursement as of 30 June 2020:	4,092,988
Expected Mid-term Review Date (MTR):	March 2019
Expected Completion Date:	02/28/2022
Expected Terminal Evaluation Date (TE):	01/12/2021
Expected Financial Closure Date:	06/28/2022

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

I. Brief description of project

Project Objective

This project aims at promoting waste-to-energy (WTE) application in agro-industries. The main objective is to promote investments in WTE technologies for electricity generation in agro-industries, while also offsetting GHG emissions. Additionally, the project expects to remove the existing barriers that currently limit the deployment and utilization of abundant agricultural waste to generate power, thereby increasing the share of national income and improving the livelihoods of the population at large.

Baseline

Tanzania Electric Supply Company (TANESCO), the national grid company, has been facing serious challenges in providing electricity due to a number of barriers, such as; a) lack of developed distribution systems; b) lack of high-level network; c) lack of sufficient hydropower output; d) high electricity tariffs; e) lack of network voltages and adequate investments; and f) decrease in hydropower capacity, etc. As a result of these issues, less than 18% of the population has access to electricity from the national grid, with more than 50% of the population, who live in poverty, spending above 35% of their household income to meet their energy needs. Despite these conditions, TANESCO has so far not properly explored the utilization of the WTE potential that is estimated to be able to generate up to 650 kW of electricity, available from agricultural activities. In 2011, UNIDO undertook a study, "Carbon footprint reduction in the agro-industrial sector of Tanzania," which focused on four agro industries; sisal, dairy, tobacco and edible oils. The study, aimed at identifying opportunities for reducing carbon footprints in the selected agro-industries, clearly states that most of the industries were using carbon-intensive technologies, contributing substantially to GHG emissions. The primary carbon reduction opportunities in these industries were found to be the use of renewable energy for electricity generation. Captive power generation will increase the reliability of electricity supply and excess electricity, when exported, will also reduce unreliability in power supply in the country and foster the country's economy.

Overall Ratings³

Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	Satisfactory (S)
Implementation Progress (IP) Rating	Moderately Satisfactory (MS)
Overall Risk Rating	Low Risk (L)

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 to-date
Component 1 – Capacity Development and Knowledge Management				

² Person responsible for report content

³ Please refer to the explanatory note at the end of the document

Outcome 1: Improved awareness, knowledge and capacity on WTE technology in Tanzania				
Output 1.1: An Information and Learning Centre established for WTE at the Dar Es Salaam Institute of Technology (DIT)	<ol style="list-style-type: none"> 1. Business plan and annual work plans created 2. Creation and operation of the centre 	Lack of one-stop technical centre on WTE	<ol style="list-style-type: none"> 1. Business plan and Annual work plan creation within first 3 months of the GEF project start 2. Creation and operation of the centre within 6 months of the GEF project start 	Due to delays (for the past 18 months) from government counterparts to approve the LoA, upon further consultation and follow-up it was noted that lack of clarity of some issues/clauses in the agreement need to be addressed and this has necessitated officials from GoT not to take timely decisions. It was then agreed upon the 5 th PSC meeting held on 17 th December 2020 that both DIT and UNIDO should work toward revising the LOA to address some issues for clarity's sake. DIT revised and shared the LoA to UNIDO on 21 st April 2021 for further review before committing to signing by both parties.
Output 1.2: Capacity developed for at least 50 policy makers	<ol style="list-style-type: none"> 1. Number of training organized 2. Number of key policy makers trained 3. Number of Women trained 	Inadequate capacity among the key policy makers	<ol style="list-style-type: none"> 1. Conduct at least 2 trainings 2. Educate and train at least 50 policy makers on WTE potential, technology and project development 	Awaiting launching of the WTE I&LC and thus to become operational to facilitate these capacity building trainings
Output 1.3: Technical capacities developed for relevant RE institutions, agro-industries and project developers (target at least 50 numbers each)	<ol style="list-style-type: none"> 1. Number of training organized for different target groups 2. Number of persons trained 3. A number of women trained 	Insufficient local capacity to develop, support, operate and maintain WTE plants	<ol style="list-style-type: none"> 1. Conduct at least 2 trainings 2. Train at least 50 personnel from each of the target group 3. Include at least 10 women for each target group 	Awaiting launching of the WTE I&LC and thus to become operational to facilitate these capacity building trainings
Component 2 – Demonstration of WTE technologies				
Outcome 1: Increased use of WTE technologies in agro-industries				
Output 1.1: Detailed plant design prepared for participating in demonstration projects	Project progress status	Lack of plant design reports for further project development	Detailed plant design reports for the demonstration projects	Detailed design for plant has been submitted by prospective contractors for review by UNIDO before issuing contracts
Output 1.2: WTE power plants	MW of installed capacity	1. Lack of demonstrable	6.8 MW plants supplying	There are six demonstration sites developers (UNIDO project

established for 6.8 MW cumulative capacity		commercial WTE plants 2. Agro industries depend on diesel or grid (fossil-fuel dominant based) electricity	electricity to agro-industries	contractors) to date which have been engaged with a cumulative of 5.71 MW (Out-Growers Tanzania Ltd - 2.9 MW, REDCOT- 0.2 MW, Wananchi Power Providers - 0.16 MW, Purandale Industries - 0.75 MW. Kisiwa Farming Limited - 1.4 MW and Olivado Tanzania - 0.3 MW). One plant (2.9 MW) is operational to date and the rest are in various stages of implementation.
Output 1.3: WTE technology transferred to agro-industries	1. Number of technology know-how workshops conducted 2. Number of field visits to WTE plants	Agro industries have inadequate knowledge on WTE technologies and its potentials	1. Conduct at least 2 technology know-how workshops 2. Conduct at least 2 field visit and hands-on training at WTE plants	Awaiting launching of the WTE I&LC and thus to become operational to facilitate these capacity building trainings

Component 3 –Creation of favourable investment environment

Outcome 1: Increased involvement of private investors in WTE projects

Output 3.1: Gap analysis on policy requirements conducted	Gap analysis report	Existence of few policies to promote renewable energy. On the other hand, there is lack of motivation among private investors	One detailed gap analysis report within the first year of the GEF project start	Awaiting launching of the WTE I&LC and thus to become operational to facilitate activities related to this output
Output 3.2: Incentives and soft loans facilities designed	1. Number of incentives schemes designed 2. Number of soft loan facility designed	Inadequate financing facilities to attract investment in WTE projects	1. At least one incentive scheme designed 2. At least one soft loan facility designed	The project has allocated a total of USD 3,842,436 (GEF grant) to provide seed money as incentives for project developers (demonstration sites developers under the project). The UNIDO incentive termed as seed grant meant to offset the cost between tradition and modern energy technologies. There are at least 5 local commercial banks offer soft loans for energy project developers, however majority of the developers in the country still find it difficult to meet the conditions to access these loans where collateral emerging to be a big concern.
Output 3.3: Incentive scheme established	USD incentive based on	Inadequate financing facilities	Establish incentive	The UNIDO incentive scheme based on result-based financing

under REA for investors of WTE projects	incremental cost principal to WTE projects	to attract investment in WTE projects	scheme with USD 3.4 million GEF grant for the demonstration and replication project	mechanism has obligated 2.284 million USD of the GEF grant to support the private developers listed above. REA, since its establishment has been offering various incentives schemes on various RE project developers all over the country as to compliment UNIDO/GEF and the entire energy development partners group in Tanzania efforts. The last new window of financing “Results-Based Financing (Rbf) Grants for Renewable Energy Investments in Green Mini and Micro Grids” was closed by the end of February 2020.
Output 3.4: Soft loan facility established under REA for investors of WTE projects	<ol style="list-style-type: none"> 1. USD soft loan 2. Number of private companies benefitted through the soft loan facility 	Inadequate financing facilities to attract investment in WTE projects	<ol style="list-style-type: none"> 1. USD 9.6 million soft loans established 2. At least 5 private sector initiatives benefitted under the soft loan scheme 	UNIDO in collaboration with TIB (a DFI with mandate of financing development with emphasis on industrialization in the country) and REA (an autonomous body under the Ministry of Energy (MoE) dealing with promotion and facilitation of improved access to modern energy services in rural areas of Mainland Tanzania) is current working out toward establishment of the Bio-Energy Promotion Facility “a guarantee scheme” that will support developers in the country to access finances from commercial banks. UNIDO will provide seed money amounting 1 M USD and open up for various stakeholder to provide their input to the basket. It is expected by October 2021 for the scheme to operational.

III. Project Risk Management

1. Please indicate the overall risk management: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

	(i) Risks	(i) Risk level	(i) Mitigation measures	(ii) Progress to-date	New defined risk⁴
1	WtE technologies are relatively new in the countries and there is lack of technical expertise for development and implementation of such projects	Modest risk (M)	Detailed technical-economic feasibility studies will be carried out. The technical personnel in the industries will be trained on deployment of the RE in industries settings. Capacity of the government officials and relevant institutions will be built.	<p>There are good numbers of local technical experts to offer various services required in undertaking RE projects. The government of Tanzania under support of the international community including UNIDO has been on forefront to ensure building of local capacity where many academic and non-academic institutions are offering various training and apprenticeship program.</p> <p>UNIDO is looking to scale up uptake of WtE technologies through the establishment of the National Waste to Energy Information and Learning Centre (WtE I&LC) at Dar es Salaam Institute of Technology. The centre will be a one-stop shop to offer teaching, training, consultancy on various WtE technologies for both individuals and institutions.</p>	<input type="checkbox"/>
2	No off-takers for the generated electricity	Modest risk (M)	Rural investment to address the demand-supply gap which is very high in rural of Tanzania	<p>UNIDO has contracted six contracts which have been awarded with a cumulative of 5.71 MW (Out-Growers Tanzania Ltd - 2.9 MW, REDCOT- 0.2 MW, Wananchi Power Providers - 0.16 MW, Purandale Industries - 0.75 MW. Kisiwa Farming Limited - 1.4 MW and Olivado Tanzania - 0.3 MW). The sites in rural areas of Tanzania are namely in Tanga, Njombe, Songea, Iringa, Mafia, Dodoma regions of the country to offer electricity to the community.</p> <p>Overall, there are many RE projects being implemented in the country following government initiatives to provide conducive environment for the private developers.</p> <p>The government maintains that rural Tanzania cannot be transformed into a modern economy, and that rural Tanzanians' livelihoods cannot</p>	<input type="checkbox"/>

⁴ New risk added in reporting period. Check only if applicable.

				be improved significantly without a dramatic improvement in their access to modern energy services.	
3	Generation perception that investment in WtE technology-based plants does not provide enough (high) returns and hence the investors are not willing to invest	Modest risk (M)	<p>Revolving fund will be established at REA for supporting WtE financing investment.</p> <p>Partnerships will be developed among commercial bank, investors and financial institutions.</p> <p>Increased awareness, knowledge and experiences created by the successful operation of the demonstration plants are expected to enhance the stakeholder's participation</p>	<p>Since its establishment in 2007, REA's main role is to promote and facilitate improved access to modern energy services in rural areas of Tanzania through financing under various windows that providing grants to qualified project developers.</p> <p>The sources of Rural Energy Fund (REF) at REA comes from the government of Tanzania and as contributions from international financial organizations, multilateral and bilateral agencies and other development partners.</p> <p>Awareness-raising is a continuous exercise and considered as a top priority by promoting investment in RE under various support of the development partners including UNIDO.</p>	<input type="checkbox"/>
4	Application of WtE technologies in Agro-Industries might be halted by the shortage of inputs	Low risk (L)	The installation of WtE plants will be done only after the proper resource assessment is done to ensure the sustainable supply of waste from agro-industries	<p>Numerous studies have been done by national and international research institutions and continue to be evolving overtime showing a great potential of RE resources including biomass for WtE in the country at a stage the government of Tanzania is promoting both local and foreign investment in the energy sector.</p> <p>There is also the availability of biomass energy strategy in Tanzania (BEST) which bring the actions plans developed that recommend biomass energy policy, supply-side and demand-side actions to be initiated with a long-term view to the year 2030.</p>	<input type="checkbox"/>
5	Lack of human capacity to operate the demonstration projects	Low risk (L)	All the demonstration projects staffs will be trained by the respective suppliers. More over under the project there will be several trainings on successful operation and maintenance of the biomass and biogas projects. In addition to this an Information and Learning Centre will be	UNIDO in collaboration with Dar es Salaam Institute of Technology (DIT) is underway to establish the National Waste to Energy Information and Learning Centre (WtE I&LC) at DIT. The centre will be a one-stop shop to offer teaching, training, consultancy on various	<input type="checkbox"/>

			established for continuous capacity building activities. All these would sustain the objective of the proposed project.	WtE technologies for both individuals and institutions. The sustainability of the project is centred with the centre (WtE I&LC) to offer capacity building services country wide.	
6	Failure to implement the project	Low risk (L)	The project will be implemented in close cooperation with in-country project partners, stakeholder and developers. Agreed and transparent modus operandi will be defined before the start of the project implementation. UNIDO have enough experience to mitigate this risk	UNIDO in close collaboration with the Vice President Office Division of Environment (VPO DoE) and the Ministry of Energy (MoE) is implementing the project with various key stakeholder in the energy sector such as TANESCO and REA.	<input type="checkbox"/>
7	Demonstration plants face operational problem due to lack of training to the operators	Low risk (L)	Capacity building at all levels is included in the project which will mitigate this risk	UNIDO in collaboration with Dar es Salaam Institute of Technology (DIT) is underway to establish the National Waste to Energy Information and Learning Centre (WtE I&LC) at DIT. The centre will be a one-stop shop to offer teaching, training, consultancy on various WtE technologies for both individuals and institutions. The sustainability of the project is centred with the centre (WtE I&LC) to offer capacity building services country wide.	<input type="checkbox"/>

2. If the project received a **sub-optimal risk rating (H, S)** in the previous reporting period, please state the **actions taken** since then to mitigate the relevant risks.

N/A

3. Please indicate any implication of the **COVID-19** pandemic on the progress of the project.

Extended lockdowns and travel restrictions following the 2nd and 3rd waves of the COVID-19 have continuously impacted negatively the project implementation with respectively the project demonstration sites developers. Three of the demonstration site developers namely KFL (1.4 MW), Olivado (0.36 MW) and Purandale Industries (0.75 MW) were expected to have completed major milestones in the site implementation plan. Production of equipment's and machines from abroad couldn't be implemented as per revised sites implementation plan as well as logistics for the same and experts become impossible. During the 5th PSC meeting held in December 2020 the project extension was granted to 2022 so as to allow for the remaining activities to be implemented but seeming almost impossible with the trend and further delays from imposed restrictions from 2nd and 3rd wave of COVID-19.

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).

	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	N/A	N/A	N/A
(ii) New risks identified during project implementation (If not applicable, please insert 'NA' in each box)	N/A	N/A	N/A

V. Stakeholder Engagement

1. Please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the projects (based on the description of the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

1. Engagement with Dar es Salaam Institute of Technology: A Host of the National Waste to Energy Information and Learning Centre (WtE I&LC).

Progress:

The PSC meeting held on 17th December 2020 decided that the UNIDO and DIT to review the LoA to address issues required clarity from the GoT counterparts (DIT, MoFP and AG office). The decision was derived from the fact that the approval process of the LoA has taken so much time delaying the implementation of the project activities related to capacity building and knowledge management and upon follow-ups with the GoT counterparts there were a lot of issues required clarity and that necessitated delays. However, on 21st April 2021 DIT submitted the draft document to UNIDO for further/final review.

Challenges:

- Lack of timely response from GoT counterparts in the course of LoA final vetting and approval has further delayed the installation and operation of the WtE I&LC

Outcome:

- The project sustainability is at risk as capacity building and knowledge management activities implementation being delayed vs the project closure timeline

2. Engagement with KFL for DIT Students Scholarship and Internship:

Progress:

On 17th December 2020, UNIDO in collaboration with The Vice President Office (VPO) and Ministry of Energy (MoE) organized a 5th Project Steering Committee (PSC) were also the demonstration site developers (KFL, REDCOT and PIL) were invited to present the project implementation status and challenges to the PSC members who comes from the key government ministry/institution/agency dealing with the energy sector. The opportunity for Project developers aimed also at establishing networking with the PSC members for potential collaboration.

Outcome:

- Kisiwa Farming Ltd who is implementing a biomass gasification plant in Mafia of 1.4 MW capacity is current exploring possibilities to partner with Dar Institute of Technology (DIT) to offer scholarships and internship/job opportunities for students. The opportunity will help to raise individuals with technical skills to both manage and operate biomass gasification plants. This partnership will also establish a platform for research and development locally to address challenges developers are facing with this technology. The discussion between KFL and DIT are underway establishing the partnership.

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

On 17th December 2020, The PSC meeting chaired by Vice President Office who is the GEF Focal Point in the country recommended the followings;

1. UNIDO grant 6-month project extension to allow execution of pending activities following COVID-19 impact on the project
2. UNIDO and DIT to review the LoA following delays as a result of lack of clarity of issues in the agreement
3. PMU to provide feedback to PSC following the establishment of the BEPF after consulting MoE and REA
4. PSC to approve the establishment of the BEPF after an initial feedback and other discussion

3. Please provide any **relevant stakeholder consultation** documents.

- 5th Project Steering Committee Meeting Minutes:



4873_5th PSC Meeting Minutes.pdf

VI. Gender Mainstreaming

1. Please provide information on **progress on gender-responsive measures** and **gender-sensitive indicators** as documented at CEO Endorsement/Approval (in the project results framework or gender action plan or equivalent).

Gender equality and empowerment of women has made a significant impact on the sustained economic growth and industrial development in Tanzania, which drives poverty reduction and social integration. The project has maintained consistently to support women in improving skills and knowledge on WtE technology follows various opportunities presented by the project. The project has enrolled and will continue to as many women as possible in its planned activities as trainee, trainers and technical consultants. The demonstration sites developers have been enhancing gender mainstreaming approaches to support employees with various opportunities arises such as on the job training programs to enhance their skills and capacity focusing on women. The response from women received showed that gender equality and empowerment measures and program was critical with results observed and impacts made.

VII. Knowledge Management

1. Please elaborate on any **knowledge activities / products** (when applicable), as outlined in knowledge management approved at CEO Endorsement / Approval.

The underway process to establish the Waste to Energy Information and Learning Centre (WtE I&LC) will play a key role in knowledge building and management (capacity building) for individuals as well as institutions in the country. The Centre primarily will build capacity to develop the Waste-to-Energy potential in Tanzania. At present, the expertise of the technical institutions or individuals on waste-to-energy conversion technologies is inadequate resulting in difficulty to sustain and replicate the waste-to-energy conversion technologies-based projects in the country

2. Please provide any **relevant knowledge management mechanisms / tools** that the project has generated.

N/A (to be developed upon operationalization of WtE I&LC)

VIII. Implementation progress

1. Please provide information on **progress, challenges and outcomes** on project implementation activities.

Progress

1. The LoA between UNIDO and DIT for the establishment of the WtE I&LC at DIT is again under revision of UNIDO HQ. The re-work follows decision made on 17th December 2020 where the PSC meeting was held in Dodoma. The members made the decision after understanding the key reason for the delay of LoA final vetting and approval being lack of clarity of some issues pertain to the agreement which has necessitated the GoT counterparts not to act on it as it were expected.
2. UNIDO in collaboration with TIB and REA is current working out toward establishment of the Bio-Energy Promotion Facility “a guarantee scheme” that will support developers in the country to access finances from commercial banks. UNIDO will provide seed money amounting 1 M USD and open up for various stakeholder to provide their input to the basket. It is expected by October 2021 for the scheme to operational. In earlier May 2021 UNIDO had a meeting with the MoE concerning the establishment of the scheme and the need to work with REA following their consent.

Challenges

1. Continues lack of timely response and informed decisions from stakeholders about approvals of partnership/collaboration required to accelerate project implementation activities
2. The impact of 2nd and 3rd wave of COVID-19 has continued to affect negatively the business environment and thus project implementation with imposed bans and restrictions (domestically and internationally). Only 1out of 6 of the contracted project demonstration site developers has achieved 100% implementation with the rest being in various stages of implementation.

Outcomes

1. The further review of the LoA following a decision made during the 5th PSC meeting held on 17th December 2020 to address clarity of issues in the agreement which will allow speedy reaction by decision-makers from the GoT counterparts.
2. The installation and operation of the WtE following clearance and approval of LoA will pave way for implementation of capacity building and knowledge management activities under the project
3. The meeting of 4th May 2020 between UNIDO and the MoE showed positive response and support from GoT respectively ministry dealing with energy

2. Please provide information related to the **financial implementation** of the project.



4873_Project Delivery Report by Grant SC Detail.pdf

IX. Work Plan and Budget

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

Outputs by Project Component	The year 2020				The year 2021				The year 2022				GEF Grant Budget Available (US\$)	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Component 1 – Capacity development and knowledge management														
Outcome 1: Improved awareness, knowledge and capacity on WTE technologies in Tanzania														
Output 1.1: An information and learning centre (I&LC) established for WTE at the University of Dar es Salaam (UDSM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13,624.40
Output 1.2: Capacity developed for at least 50 policy makers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50,000.00
Output 1.3: Technical capacities developed for relevant RE institutions, agro-industries and project developers (target at least 50 numbers each)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	50,000.00
Component 2 - Demonstration of WTE technologies														
Outcome 2: Increased use of WTE technologies in agro-industries														
Output 2.1: Detailed plant designs prepared for participating demonstration projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Output 2.2: WTE power plants established for 6.8 MW cumulative capacity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31,387.51

Output 2.3: WTE technologies transferred to agro-industries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30,000.00
Component 3 - Creation of a favourable investment environment													
Outcome 3: Increased involvement of private investors in WTE projects													
Output 3.1: Gap analysis on policy requirements conducted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	87,170.55
Output 3.2: Incentive and soft loan facilities designed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Output 3.3: Incentive scheme established under REA for investors of WTE projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	800,000.00
Output 3.4: Soft loan facility established under REA for investors of WTE projects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Component 4 – Monitoring and Evaluation													
Outcome 4: Effectiveness of the outputs assessed, corrective actions taken and experience documented													
Output 4.1: Mid-term M&E Report prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	60,000.00
Output 4.2: End of Project M&E Report prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	76,635.67

X. Synergies

1. Synergies achieved.

UNIDO, Tanzania Development Bank (TIB Bank) and Rural Energy Agency (REA) under the Ministry of Energy (MoE) are working together in developing, monitoring and implementing a Private Sector Guarantee Facility called Bioenergy Promotion Facility (BEPF) for supporting local enterprises in their-waste to energy and biofuel investment projects.

The facility will support energy developers to access finance for implementing projects. The major among many challenges developers are facing to be addressed is tied with collateral as a key condition for accessing the finances in commercial banks.

The facility with seed money amounting 1 M USD from UNIDO will allow various stakeholders (GoT, DP's, etc) to contribute or donate to the fund basket and therefore supporting energy sector development in the country; thus, contributing to the economic and social benefits of industrial productivity, profitability, and circularity practices and solutions.

Stories to be shared (Optional)

Provide a brief summary of any especially interesting and impactful project results that are worth sharing with a larger audience, and/or investing communications time in, if any.

N/A