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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
ORGANISATION DES NATIONS UNIES POUR LE DEVELOPPEMENT INDUSTRIEL

Progress Report
(01 July 2018 – 30 June 2019)

Name of country United Republic of Tanzania

Title[1]	**Promotion of Waste to Energy in Agro-Industries of Tanzania**
GEF ID:	**4873**
UNIDO SAP ID:	**140077**
GEF Replenishment Cycle:	**GEF-5**
GEF Focal Area:	**Climate Change Mitigation (CCM)**
Integrated Approach Pilot (IAP) Programs[2]:	**(select)**
GEF Project Size:	**Full-Sized Project (FSP)**
UNIDO PTC Department:	**Department of Energy (ENE)**
UNIDO Project Manager:	**Jossy Thomas**

I. Brief description of the project

I.1 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. This project aims at promoting the use of WTE technologies, i.e. biomass and biogas technologies, in agro-industry. The proposed intervention will enable agro-industries to utilize the wastes produced in their facilities to generate energy, 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.

I.2 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 total population has access to electricity from the national grid, with more than 50%

[1] As per approved CEO Endorsement document
[2] Only for **GEF-6 projects**, if applicable

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 agroindustries; 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.

II. Targeted results and progress to-date

II.1 Describe in tabular form the project's progress made in achieving its 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	Target level	Progress to-date (FY 2019)
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)	1. Business plan and annual work plans created 2. Creation and operation of the centre	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	1. Final review of the framework document is completed 2. DIT has submitted co-financing letter 3. Draft LOA was cleared by DIT, as well as Legal Department at UNIDO HQHQ 4. WtE I&LC launch is tentatively early October 2019
Output 1.2: Capacity developed for at least 50 policy makers	1. Number of training organized 2. No. of key policy makers trained 3. Number of women trained	1. Conduct at least 2 trainings 2. Educate and train at least 50 policy makers on WTE potential, technology and project development 3. Include at least 10 women policy makers in the training	1. Contributed towards the International Biofuel Training from 17-21 June 2019 in Bangkok: Nominated and sponsored 2 Tanzanian counterparts. 2. Awaiting WtE I&LC launch and thus to become operation to facilitate capacity building trainings.
Output 1.3: Technical capacities developed for relevant RE institutions, agro industries and	1. Number of training organized for different target groups	1. Conduct at least 2 trainings	

Project Strategy	KPIs/Indicators	Target level	Progress to-date (FY 2019)
project developers (target at least 50 numbers each)	2. No. of persons trained 3. A number of women trained.	2. Train at least 50 personnel from each of the target groups 3. Include at least 10women for each target group	Awaiting WtE I&LC launch and thus to become operational to facilitate capacity building trainings.
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	Project progress status	Detailed plant design reports for the demonstration projects	Detailed plant design for project design from demonstration sites developers (awarded contracts) are reviewed by UNIDO HQ during contacting engagement.
Output 2.2: WTE power plants established for 6.8 MW cumulative capacity	MW of installed capacity	6.8 MW WTE plants supplying electricity to agro-industries	7 contracts have been awarded, with a cumulative of 6.523 MW (2.9 MW, 1 MW, 0.2 MW, 0.16 MW, 0.338 MW, 1.625 MW and 0.3 MW)
Output 2.3: WTE technologies transferred to agro industries	1. No. of technology know-how workshops conducted 2. No. of field visits to WTE plants	1. Conduct at least 2 technology knowhow workshops 2. Conduct at least 2 field visits and hands-on training at WTE plants	Awaiting WtE I&LC launch and thus to become operation to facilitate capacity building trainings.
Component 3 - Creation of favourable investment environment			
Outcome 3: Increased involvement of private investors in WTE projects			
Output 3.1: Gap analysis on policy requirements conducted	Gap-analysis report	One detailed gap analysis report within the first year of the GEF project start	
Output 3.2: Incentive and soft loan facilities designed	1. Number of incentive scheme designed 2. Number of soft loan facility designed	1. At least one incentive scheme designed 2. At least one soft loan facility designed	The Rural Energy Fund (REF) provides grants to qualified project developers. The Fund represents a mechanism by which the Rural Energy Board (through REA) fulfils its mandate.
Output 3.3: Incentive scheme established under REA for investors of WTE projects	USD incentives based on incremental cost principle to WTE projects	Establish incentive scheme with USD 3.4 million GEF grant for the demonstration and replication projects	7 contract has been awarded, with a cumulative of 6.523 MW equivalent to 2.6 million GEF grants. 3rd CEOI launched in March 2019 final results are not yet out to conclude the remaining 0.8 million out of 3.4 total GEF grant.
Output 3.4: Soft loan facility established under REA for investors of WTE projects	1. USD soft loan 2. No. of private companies benefitted through the soft loan	1. USD 9.6 million soft loans established 2. At least 5 private sector initiatives	Rural Energy Agency (REA) through the Rural Energy Funds (REF) has been active engaging in supporting various developers through number of incentive schemes as grants.

Project Strategy	KPIs/Indicators	Target level	Progress to-date (FY 2019)
	facility	benefitted under the soft loan scheme	

III. Project Risk Management

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

[Describe in tabular form the priority activities undertaken during the reporting period in line with the project document. **Note** that risks, risk level and mitigations measures should be consistent with the ones identified in the CEO Endorsement/Approval document.]

	(i) Risks	(i) Risk level	(i) Mitigation measures	(ii) Progress to-date	New defined risk[3]
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 personel 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.	There have been significant development of the WtE plants in the country recentry (2-4 years) which proves the technologies are viable and gaining its pace. The project through the national WtE I&LC is mandated to foster transfer of the knowledge and information in areas of WtE.	☐
2	No off takers for the generated electricity	Modest risk (M)	Rular investment to address the demand supply gap which is very high in rular of Tanzania	There have been ongoing sensitization focusing on productive use of energy all over the country which make the investmet commercial viable for project developers Government subsidy and incentive also boost the initiatives for more energy off takers.	☐
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)	Revolving fund wil be established at REA for supporting WtE financing investment. Partnerships will be developed among commercial bank, investors and financial institutions.	There is a going wide growing pace of WtE plants in the country . The initiatives also come along as the government supports gain its pace. A	☐

[3] New risk added in reporting period. Check only if applicable.

			Increased awareness, knowledge and experiences created by the successful operation of the demonstration plants is expected to enhance the stakeholder's participation		
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 propoer resource assesment is done in order to ensure the sustainable supply of waste from agro-industries	Various WtE plants are now in operation all over the country. 2 demostration sites under the project are in operation and 5 more in the early stahe of their implementation.	☐
5	Lack of human capacity to operate the demostration projects	Low risk (L)	All the demostration projects)&M staffs will be trained by the respective suppliers. More over under the project there will be several training on successful operation and maintanance of the biomass and biogass projects.I addition to this an Information and Lerning Centre will be established for continous capacity building activities. All these would sustain the objective of the proposed project	The number of human capacity on WtE technologies is being relaized to grow from number of established plants in the country	☐
6	Failure to impolement the project	Low risk (L)	The project will be imoplemented 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	The project is well received by the host country and various stakeholders from the government and private sectors are playing key crucial roles in the course of the implementation	☐

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	Plans are in place to make use of the coming established WtE I&LC at DIT. Also private sector investment in the sector contributes to supporting the need for human capacity in designing, installation and operating of WtE plants.	☐

III.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

IV Environmental and Social Safeguards (ESS) & Stakeholder Engagement

IV.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 been escalated to Category A or B).

[**Notes on new risks:**

- 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 Environmental and Social Safeguards Policies and Procedures (ESSPP) on how to report on E&S issues.]

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

Midterm Project Review Feedback by Independent Reviewer "Consultant":

The Promotion of waste-to-energy applications in agro-industries of Tanzania project has increased installation of WtE plants for energy use in agro-industries and emission reduction. Tanzania has a large agriculture sector and has a need for further electrification and power generation. Agro-waste has good energy content and is otherwise a disposal problem. The project is highly relevant to the national development context and offers good greenhouse gas emission reductions potentials.

The project was designed with four components comprised of an Information & Learning Centre, Demonstrations and Financial instruments as well as a Monitoring and Evaluation component. The design was comprehensive and appropriate to the goal and objectives.
The changes in government, changes in the selection of a national Information and Learning Centre (ILC) and change in the National Project Coordinator have contributed to delays on several key components.
The WtE I&LC is critical to sustainability and capacity building. This MoU needs to be signed as soon as possible. Should the terms not be agreed, the Rural Energy Agency seems to be performing this function already through the SIDA funded program. UNIDO could donate the grant funds to this program at REA emphasizing the Agro WtE technology.
Workshops should prepare developers for project implementation thus they are needed early in a project. Workshops with policymakers should be presented and executed as consultatory processes tackling current issues on distributed generation and electrification as well as WtE benefits. Other donors should be invited to join these workshops as the issues are more general in nature.
Demonstrations have encountered technology risk with biomass gasification. Failures have a very powerful negative impact on technologies in the market. Eligibility of biomass gasification to internal combustion engines technology should be suspended. The REDCoT and WPP plants need to be remediated and functioning before any further biomass gasification projects are supported. Biogas digesters, bagasse cogeneration and simple combustion boiler technologies are all working fine and should remain eligible.
Otherwise, the Agro-waste to Energy technologies including biogas digesters to methane, and boilers are relatively risk-free and proceeding well. Of the 6.8 MW target, 3.26 MW have been installed and if they are made fully operational will result in the electricity and greenhouse gas emissions reductions nearing half the overall target. The third Expression of Interest will probably bring forward sufficient potential projects to reach the target.
The grant modality will be used to support the demonstration sites, however, in future UNIDO/GEF should invest in guidelines for revolving funds that are less disruptive to the marketplace, more sustainable long term and achieve about 4 times more post-project direct impact with co-finance.
The project should be extended by a year and priority put onto getting the Information& Learning Centre up and running.
Demonstrations of biomass gasification to producer gas for combustion in Internal Combustion spark engines need remediation in order to make them successful. Otherwise, other technologies appear to have low risks and it is expected that the project could nominally achieve the MW targets and Greenhouse Gas emission reductions targets by project completion.
Policy support as part of the finance component should be used to address potential political risk and TANESCO off-taker risks.

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

[Examples: *Project Steering Committee minutes, Aide Memoire, Meeting Agenda, etc*.
All attachments are to be named as per the GEF required format, i.e.: **"GEFID_Document Title"**]

1. 4873_GEF5_3rd National Project Steering Committee Meeting Minutes
2. 4873_GEF5_Midterm Project Review Report

V Knowledge Management

V.1 Please provide any **relevant knowledge management mechanisms** / **tools** that the project has generated:

[Examples: *online information exchange/sharing platforms, relevant technical reports, UNIDO Indicator Tracking Tools, GEF Tracking Tools/Core Indicators, project websites, videos, publications, flyers, etc*.
All attachments are to be named as per the GEF required format, i.e.: **"GEFID_Document Title"**]

The upcoming establishment of the Waste to Energy Information and Learning Centre 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.

VI Financial report

VI.1 **Financial** implementation of the project:

PROJECT DELIVERY REPORT

Project:	140077 - PROMOTION OF WASTE-TO-ENERGY (WTE) APPLICATIONS IN AGRO-INDUSTRIES OF TANZANIA	**Project Manager:**	Jossy Thomas	**Project Validity:** **Status:**	10.02.2015 - 29.02.2020 Implement		
Reporting Period:	10.01.2015 - 30.06.2019	**Project Theme:**	Energy and Environment	**Country:**	URTanzania	**Region**	Africa

Sponsor Nr.	Sponsor	Grant	Grant Description	Fund	Currency	Grant Status	Grant Validity
400150	Global Environment Facility	2000002990	TANZANIA #FSP	GF	USD	Authority to implement	10.02.2015 - 29.02.2020

	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)
2000002990											
140077-1-01-01	**OP 1.1: Information and Learning Centre**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**
1100	Staff & Intern Consultants	7,982.91	0.04	0.00	0.04	151,751.18	151,751.18	143,768.31	7,982.87	0.00	143,768.31
1500	Local travel	21,100.80	994.00	1,765.93	2,759.93	27,000.00	27,000.00	8,659.13	18,340.87	0.00	8,659.13
1700	Nat.Consult./Staff	2,556.69	0.00	0.00	0.00	52,000.00	52,000.00	49,443.31	2,556.69	0.00	49,443.31
2100	Contractual Services	17,149.00	1,061.26	0.00	1,061.26	60,000.00	60,000.00	43,912.26	16,087.74	0.00	43,912.26
3000	Train/Fellowship/Study	74,501.37	0.00	0.00	0.00	84,714.00	84,714.00	10,212.63	74,501.37	0.00	10,212.63
3500	International Meetings	7,156.18	7,462.47	1,910.83	9,373.30	10,364.15	10,364.15	12,581.27	(2,217.12)	0.00	12,581.27
4500	Equipment	6,739.05	0.00	0.00	0.00	10,000.00	10,000.00	3,260.95	6,739.05	0.00	3,260.95
5100	Other Direct Costs	5,612.98	(35.37)	4,120.02	4,084.65	19,884.67	19,884.67	18,356.34	1,528.33	0.00	18,356.34
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29,019.44	29,019.44
140077-1-01-01	**Total**	**142,798.98**	**9,482.40**	**7,796.78**	**17,279.18**	**415,714.00**	**415,714.00**	**290,194.20**	**125,519.80**	**29,019.44**	**319,213.64**
140077-1-02-01	**OP 2.1: Detailed Plant Designs**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**
1100	Staff & Intern Consultants	79,473.62	18,153.17	9,593.97	27,747.14	101,933.57	101,933.57	50,207.09	51,726.48	0.00	50,207.09
1500	Local travel	71,764.28	0.00	1,391.69	1,391.69	80,000.00	80,000.00	9,627.41	70,372.59	0.00	9,627.41
1700	Nat.Consult./Staff	12,646.75	32,068.89	36,792.99	68,861.88	124,000.00	124,000.00	180,215.13	(56,215.13)	0.00	180,215.13
2100	Contractual Services	243,475.69	(162,400.00)	166,931.55	4,531.55	602,066.43	602,066.43	334,626.29	(32,559.86)	0.00	334,626.29
3000	Train/Fellowship/Study	85,123.29	0.00	0.00	0.00	88,195.66	88,195.66	3,072.37	85,123.29	0.00	3,072.37
5100	Other Direct Costs	2,018.30	0.00	24.03	24.03	3,804.34	3,804.34	1,810.07	1,994.27	0.00	1,810.07
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57,956.11	57,956.11
140077-1-02-01	**Total**	**494,501.93**	**(112,177.94)**	**214,734.23**	**102,556.29**	**1,000,000.00**	**1,000,000.00**	**579,558.36**	**120,441.64**	**57,956.11**	**637,514.47**

*** Does not include Unapproved Obligations**

Report Prepared on: 13.08.2019

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PROJECT DELIVERY REPORT

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Reporting Period:	**10.01.2015 - 30.06.2019**	**Project Theme:**	Energy and Environment	**Country:**	URTanzania	**Region**	Africa

Sponsor Nr.	**Sponsor**	**Grant**	**Grant Description**	**Fund**	**Currency**	**Grant Status**	**Grant Validity**
400150	Global Environment Facility	2000002990	TANZANIA #FSP	GF	USD	Authority to implement	10.02.2015 - 29.02.2020

	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)
140077-1-03-01	**OP 3.1: Gap Analysis Conducted**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**
1100	Staff & Intern Consultants	71,969.31	0.00	0.00	0.00	72,000.00	72,000.00	30.69	71,969.31	0.00	30.69
1500	Local travel	14,585.19	0.00	0.00	0.00	18,000.00	18,000.00	3,414.81	14,585.19	0.00	3,414.81
1700	Nat.Consult./Staff	595.00	0.00	0.00	0.00	34,000.00	34,000.00	33,405.00	595.00	0.00	33,405.00
2100	Contractual Services	102,800.00	(649,600.00)	649,600.00	0.00	2,384,000.00	2,384,000.00	2,281,200.00	(1,097,200.00)	0.00	2,281,200.00
3000	Train/Fellowship/Study	30,564.00	0.00	0.00	0.00	30,564.00	30,564.00	0.00	30,564.00	0.00	0.00
4300	Premises	708.53	0.00	0.00	0.00	1,000.00	1,000.00	291.47	708.53	0.00	291.47
4500	Equipment	981,392.70	0.00	0.00	0.00	982,436.00	982,436.00	1,043.30	981,392.70	0.00	1,043.30
5100	Other Direct Costs	27,649.39	0.00	0.00	0.00	28,000.00	28,000.00	350.61	27,649.39	0.00	350.61
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	231,973.62	231,973.62
140077-1-03-01	**Total**	**1,230,264.12**	**(649,600.00)**	**649,600.00**	**0.00**	**3,550,000.00**	**3,550,000.00**	**2,319,735.88**	**30,264.12**	**231,973.62**	**2,551,709.50**
140077-1-51-01	**OP 4.1: Monitoring**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**
1100	Staff & Intern Consultants	50,000.00	0.00	0.00	0.00	50,000.00	50,000.00	0.00	50,000.00	0.00	0.00
1500	Local travel	10,000.00	0.00	0.00	0.00	10,000.00	10,000.00	0.00	10,000.00	0.00	0.00
140077-1-51-01	**Total**	**60,000.00**	**0.00**	**0.00**	**0.00**	**60,000.00**	**60,000.00**	**0.00**	**60,000.00**	**0.00**	**0.00**
140077-1-53-01	**OP 5.1: Evaluation**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**	**USD**
1100	Staff & Intern Consultants	0.00	5,191.00	10,485.82	15,676.82	0.00	0.00	15,676.82	(15,676.82)	0.00	15,676.82
1500	Local travel	11,286.00	0.00	7,817.92	7,817.92	11,286.00	11,286.00	7,817.92	3,468.08	0.00	7,817.92
1700	Nat.Consult./Staff	240,000.00	0.00	0.00	0.00	240,000.00	240,000.00	0.00	240,000.00	0.00	0.00
5100	Other Direct Costs	0.00	0.00	1,005.00	1,005.00	0.00	0.00	1,005.00	(1,005.00)	0.00	1,005.00
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,449.97	2,449.97
140077-1-53-01	**Total**	**251,286.00**	**5,191.00**	**19,308.74**	**24,499.74**	**251,286.00**	**251,286.00**	**24,499.74**	**226,786.26**	**2,449.97**	**26,949.71**
2000002990	**Total**	**2,178,851.03**	**(747,104.54)**	**891,439.75**	**144,335.21**	**5,277,000.00**	**5,277,000.00**	**3,213,988.18**	**563,011.82**	**321,399.14**	**3,535,387.32**
140077	**USD Total**	**2,178,851.03**	**(747,104.54)**	**891,439.75**	**144,335.21**	**5,277,000.00**	**5,277,000.00**	**3,213,988.18**	**563,011.82**	**321,399.14**	**3,535,387.32**

*** Does not include Unapproved Obligations**

VII 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 2019				The year 2020				The year 2021				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)	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	**125,519.80**
Output 1.2: Capacity developed for at least 50 policy makers	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☐	☐	
Output 1.3: Technical capacities developed for relevant RE institutions, agro-industries and project developers (target at least 50 numbers each)	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	☐	
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	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	**120,441.64**
Output 2.2: WTE power plants established for 6.8 MW cumulative capacity	☐	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	☐	
Output 2.3: WTE technologies transferred to agro industries	☐	☐	☐	☒	☒	☒	☒	☒	☐	☐	☐	☐	
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	☐	☐	☐	☐	☒	☒	☒	☐	☐	☐	☐	☐	**30,264.12**
Output 3.2: Incentive and soft loan facilities designed	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Output 3.3: Incentive scheme established under REA for investors of WTE projects	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
Output 3.4: Soft loan facility established under REA for investors of WTE projects	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	
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	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	**60,000.00**
Output 4.2: End of Project M&E Report prepared	☐	☐	☐	☐	☐	☐	☒	☒	☐	☐	☐	☐	**226,786.26**

VIII Synergies

VIII.1 **Synergies** achieved:

[Describe potential synergies arising out of closer integration of the service modules within the project or cooperation with (external) multilateral and bilateral projects/programmes.]

N/A