THE GOLD STANDARD MICRO-SCALE SCHEME PROJECT DESIGN DOCUMENT FORM - Version 2.2

CONTENTS

Annexes

SECTION A. General description of micro-scale project activity

A.1 Title of the micro-scale project activity:

Rehabilitation and Extension of Itete Hospital Hydropower Station

Version: 2.0

Date:08.03.2013

A.2. Project participants:

Name of Party involved ((host) indicates a host Party)	Private and/or public entity(ies) project participants (as applicable)	Party involved wishes to be considered as project participant (Yes/No)
United Republic of Tanzania	Evangelical Lutheran Church in Tanzania – Konde Diocese	No
Germany	Klima ohne Grenzen gemeinnützige GmbH	No

Evangelical Lutheran Church in Tanzania– Konde Diocese (ELCT-KOD) is a faith based organization. ELCT´s development work is based on the following objectives: (1) to strengthen the economic base of communities (for the purpose of reducing vulnerability/poverty reduction); (2) to promote women's work, gender relations and children's rights; (3) to provide quality social services and (4) to build capacity and create awareness among the community ELCT serves in order to enable them to realize civil rights, good governance and meaningful socio-economic development. Its programs are people centered benefitting all people regardless of their gender, religion, ideology and color. Through its faith based approach and holistic ministry the church works for the rural and poor urban. Itete Lutheran Hospital is owned and operated as a as a voluntary Agency Hospital by ELCT – KOD. ELCT-KOD is the project owner and implements the project.

Klima ohne Grenzen (KoG) is a non-profit organization (NPO) based in Germany. KoG´s vision is a low carbon-society. KoG follows this vision by fighting climate change and poverty together. With its consulting services and its climate mitigation projects KoG supports individuals and public / private entities in their efforts to address the challenges linked with climate change and poverty. KoG assists ELCT-KOD in developing the carbon program and markets the carbon credits.

A.3 Description of the micro-scale project activity:

A.3.1. Location of the micro-scale project activity:

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A.3.1.1. Host Country:

Tanzania

A.3.1.2.	Region/State/Province etc.:

Mbeya Region / Rungwe District

A.3.1.3.	City/Town/Community etc:

Itete Ward

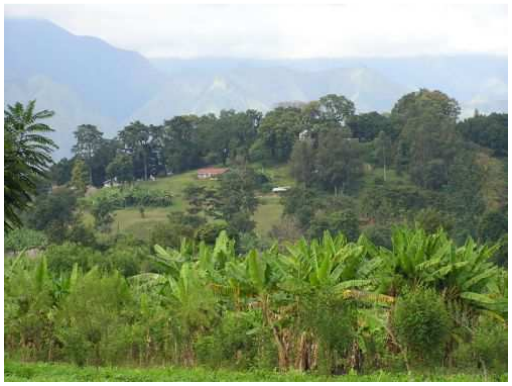
A.3.1.4.	Details of physical location, including information allowing the unique identification of this micro-scale project activity:

Itete Hospital Hydropower Station is located at Kasyabone river. The geographical coordinates are:

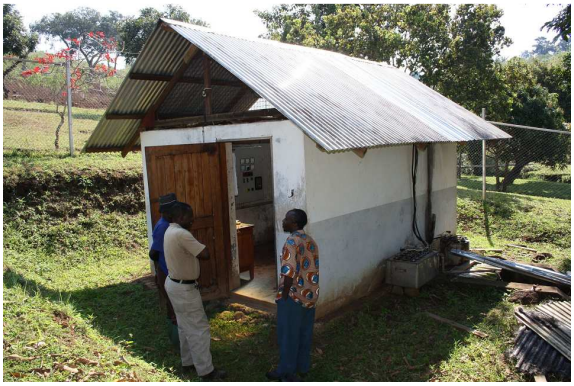
Site	Coordinates	
Itete Hospital Hydropower Station - Weir	009°20’03.68’’ S	33°50’07.87’’ E
Itete Hospital	009°18’06.61’’ S	33°50’50.27’’ E

A.3.2. Description including technology and/or measure of the micro-scale project activity:

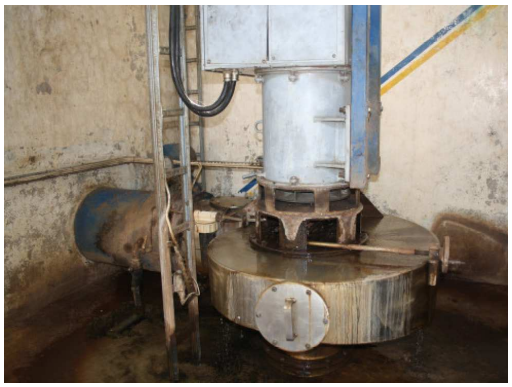
The micro hydro scheme Itete Hospital Hydropower Station at Kasyabone river is being rehabilitated and extended by the Evangelical Lutheran Church in Tanzania. The owner of the station is Itete Hospital – a 120-bed health care facility operated by the Evangelical Lutheran Church in Tanzania (ELCT) - Konde Diocese as a voluntary Agency Hospital. Itete Hospital provides health care services for more than 142.000 people in its catchment area.



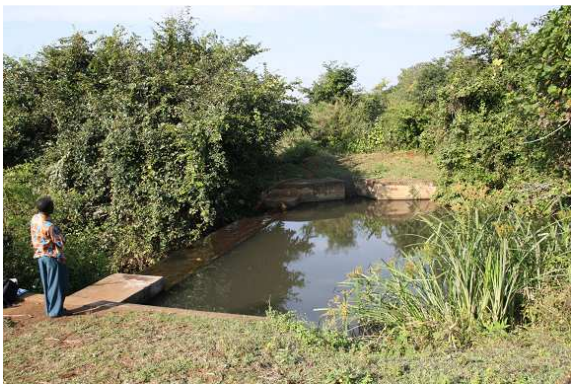
Picture 1: Itete Hospital at Kabembe Hill



Picture 2: Itete Hospital Hydropower Station - Power House



Picture 3: Old Turbine + Generator



Picture 4: Weir with intake and small reservoir

More than 75% of the people who receive medical treatment at Itete Hospital cannot pay for the service. The hospital can only afford to provide the necessary free of charge services by keeping its operating costs as low as possible. Therefore, cost of electricity consumption is a major aspect. Itete Hospital used to get its electricity mainly from Itete Hospital Hydropower Station – the hospital owned hydropower station. However, in resend years the amount of energy produced by the outdated and worn-out hydropower station continually declined and is nowadays by far not enough for Itete Hospital.

Furthermore, in 2010 an independent expert evaluation came to the conclusion that the technical lifetime of major mechanical and electrical components of Itete Hospital Hydropower Station (e.g. the turbine, the generator) has already expired and that the installation is a high risk for fatal injury and dangerous for medical equipment at the hospital. Due to technical security standards the installation should be closed down immediately.

The great need for affordable electricity to sustain health care services for more than 142.000 people in the catchment area of the hospital has prevented Itete Hospital to follow this advice and to close down its hydropower station. However, the unpreventable further deterioration of the hydropower station – as a result of unavailability of spare parts for the outdated equipment – will soon force the hospital to take the station out of service. The result – lack of affordable energy services for Itete Hospital – will have a tremendous negative impact on the health care services for many people in Mbeya Region, e.g.:

- Potentially more patients will have to pay for health services,
- Due to increasing costs patients will have to cover many people will no longer have access to health services,
- Limitations in operation time for some departments,
- Limitations for the In Patient Department (IPD) with 120 beds during hours without sunlight,
- Limitations regarding medical equipment that can be used,
- High costs of running a diesel generator to produce electricity reduce amount of funds available for medical services and
- High staff fluctuation.

Therefore, the re-establishment of reliable energy services for Itete Hospital from its hydropower station is very much needed. ELCT-KOD has decided to implement the project „Rehabilitation and Extension of Itete Hospital Hydropower Station“ with two general objectives:

- Rehabilitation of renewable energy supply for Itete Hospital to sustain the health care services of Itete Hospital
- Extension of renewable energy supply to three villages of Itete ward (Butola, Lupata and Kabembe) to facilitate sustainable development in these villages

Once completed, the project will prevent that Itete Hospital has to rely on expensive diesel fuel for carbon intensive electricity generation with diesel generators. With the help of the carbon program Itete Hospital will be able to operate and maintain its hydropower station in a sustainable way without diverting funds from its medical services towards energy services. The high level of medical services can be maintained and even increased by purchasing new medical equipment and employing more skilled medical staff. Additionally, the practice of providing free treatment to people with low income can be continued. Thus, the re-establishment of reliable energy services for Itete Hospital from its hydropower station will bring significant economic and social benefits to Itete Hospital and the 142.000 people in its catchment area.

Furthermore, at Itete Ward (the villages around Itete Hospital) currently very few people have access to modern electricity services for domestic and commercial. Instead, households use kerosene lamps for lighting services and few public / private institutions have small scale diesel generators. The lack of basic affordable energy services very much hinders economic growth and sustainable development in these villages. The project will bring a new energy source to households and public / private institutions. By doing so, it will reduce greenhouse gas emissions as well as indoor air pollution caused by kerosene lamps and local air pollution caused by diesel generators. The project will also bring economic benefits to the villages since small enterprises can start to utilize affordable, clean energy for their services (e.g. agro-processing). Thus, the project will support the development of a self sustaining, local economy and contribute significantly to poverty reduction.

The project will involve the following construction activities:

- The existing machines in the turbine house will be dismantled.
- The turbine house and all auxiliary buildings will be repaired and modified if needed in order to fit the new machines and technical equipment.
- A new turbine with a capacity of 100 – 150kW will be installed.
- A new generator will be installed.
- New technical accessories (e.g. hydraulic control box, the regulation, sensors, and mechanical security equipment) will be installed.
- The water control equipment will be repaired and rehabilitated in order to operate with the best yield and safe operation conditions.
- Households / non-households in three villages of Itete Ward, namely Butola, Lupata and Kabembe will be electrified through the construction of new mini-grid.

Itete Hospital Hydropower Station is a run-of-the-river scheme. Changes to the civil structures of the hydropower station (e.g. the weir) that will significantly increase the small reservoir are not planned. The project will utilize the potential of hydropower for the social and economic development at Itete Ward and for more than 142.000 people in the catchment area of Itete Hospital without any negative impacts on plants, animal life and biodiversity.

Economic and social background of the project

The project is located in the Rungwe District in Tanzania´s Mbeya Region. Due to the agricultural possibilities the area is densely populated. It is the most densely populated rural area in whole Tanzania. The main tribe is Nyakyusa of Bantu origin. Although rich in agriculture the area is still very poor. The economical situation changes relating to the changing of seasons as most of the inhabitants make a living with farming. In the northern areas of the catchment area tea is the predominant cash crop with steadily declining rentability of tea farming. In the southern parts of the catchment area cocoa is the main cash crop which still provides good income. In the areas directly surrounding the hospital no cash crops are grown. There the economical situation is difficult the year round. Over 90% of the inhabitants of Rungwe District are still living with an income below the absolute poverty criteria of the UN (1US$ per day). According to this economic situation people are mainly able to afford simple health services whereas more expensive treatment like procedures and in-patient-treatment cannot always be afforded. The Mbeya Region is second worst affected by HIV/AIDS in whole Tanzania. Itete Hopsital is aware that joint efforts have to be made to limit this pandemic but there is still a long way to go.

A.3.3 Estimated amount of emission reductions over the chosen crediting period:

The estimated amount of emission reductions over the crediting period of the project are the following:

Year	Estimation of annual emission reductions (t CO_2 e)
2014	547
2015	567
2016	588
2017	610
2018	633
2019	645
2020	657
Total amount of emission reductions over the crediting period of the project:	**4,247**
Total number of crediting years:	7
Average annual emission reductions:	607

A.3.4. Public funding of the micro-scale project activity:

(see *Annex for ODA declaration form)*

SECTION B. Application of an existing baseline and monitoring methodology or of a new methodology submitted as part of this project activity

B.1. Title and reference of the existing or new baseline and monitoring methodology applied to the micro-scale project activity:

The project generates emission reductions from two types of activities and therefore relies on two baseline and monitoring methodologies. The two activities and the applied methodologies are following:

1. Rehabilitation of renewable energy supply for Itete Hospital

Project type: I – Renewable Energy Projects

Project category: I.F: Renewable electricity generation for captive use and mini-grid

The "Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories" for project category I.F (Version 02) is applied.

2. Extension of renewable energy supply to three villages of Itete ward (Butola, Lupata and Kabembe)

Project type: III – Other Project Activities

Project category: III.BB: Electrification of communities through grid extension or construction of new mini-grids

The "Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories" for project category III.BB (Version 01.0) is applied.

B.2 Justification of the choice of the methodology and applicability:

Itete Hospital is the owner of Itete Hospital Hydropower Station. The first activity of the project is the rehabilitation of renewable energy generation for Itete Hopsital. The second activity of the project is the extension of renewable energy supply for basic energy services to the villages Butola, Lupata and Kabembe via a new mini-grid. Itete Hospital Hydropower Station will not supply electricity to Tansania´s national grid.

1. Rehabilitation of renewable energy supply for Itete Hospital - AMS-I.F

- The project comprises a renewable energy generation unit – Itete Hospital Hydropower Station. The project activity will displace electricity from an electricity distribution system that would have been supplied by at least one fossil fuel fired generating unit in the absence of the project activity.
- The total output of the retrofitted and extended plant will be 0.125 MW and not exceed the limit of 15 MW. Therefore, the proposed project is a micro scale project as defined by the Gold Standard guidelines and falls under the category "Small Low Impact Hydro".

- Itete Hospital Hydropower Station is a run-off-river hydroelectric plant. Project activities will not change the volume of a reservoir.
- The project involves the retrofit and the capacity extension of the plant.

The project fulfills all relevant requirements for the application of AMS-I.F.

2. Extension of renewable energy supply to three villages of Itete ward (Butola, Lupata and Kabembe) –AMS-III.BB

- The project involves the electrification of a community of consumers (in the villages Butola, Lupata and Kabembe) through the construction of new mini-grid. The project activities will displace fossil fuel use, such as in fuel-based lighting systems and stand-alone power generators.
- Electricity consumers will include households and may include commercial facilities such as shops, public services/buildings and small, medium and micro enterprises (SMMEs). Applications will include lighting and may include electrical appliances such as refrigerators, and agricultural water pumps.
- At least 75% (by number) of the project consumers will be households.
- Electricity consumers that were not connected to a national/regional grid prior to project implementation will be supplied with electricity from the project activity.
- The project utilizes renewable energy.
- AMS-I.L does not apply since the project activity might also include some consumers that have access to an electricity generation system prior to the implementation of the project.
- The project does not include any portable systems, such as portable electricity generating systems.
- The amount of project electricity delivered to consumers can be determined through the use of meters that continuously measure electricity delivered by the project activity to consumers. (sh. Section Monitoring)
- The classification of project energy consumers and their respective energy consumption can be accomplished, tracked and documented in accordance with the monitoring requirements of AMS-III.BB.
- The project activities will result in emission reductions of less than 60.000 tCO_2 equivalent annually.

The project fulfills all requirements for the application of AMS-III.BB.

B.3. Description of the project boundary:

The project is located on Kasyabone river 6km south east of the Itete Hospital. The micro hydro project supplies Itete Hospital and three villages of Itete ward, namely Butola, Lupata and Kabembe via a mini-grid. Therefore, the spatial extent of the project boundary includes the physical sites of the end-use consumers served by the project activity, namely Itete Hospital and the communities of the three villages Butola, Lupata and Kabembe. The spatial extent of the project boundary also includes the physical site of the Itete Hospital Hydropower Station. The Itete Hospital Hydropower Station is the only power plant connected to the mini grid.

B.4. Description of the baseline and its development as per the chosen methodology:

1. Rehabilitation of renewable energy supply for Itete Hospital

The calculation of the baseline follows the procedure stated in AMS-I.F. The following key considerations provided the basis for the calculation:

a. How can Itete Hospital secure the necessary energy supply for its health services in the absence of the project activity?

b. What is the consumption profile in kWh on an hourly, daily and annual basis?

How can Itete Hospital secure the necessary energy supply for its health services in the absence of the project activity?

Itete Hospital Hydropower Station was designed as the basic source of energy supply for Itete Hospital. In resend years the amount of energy produced by the run-out hydropower station was by far not enough to run the hospital equipment and the services in the hospital wards. Since an accident in 2009 the machines are unable to run at full power range. The possible power output power is reduced to 18 kW only. Additionally, an expert evaluation came to the conclusion that the operation of the machines of Itete Hospital Hydropower Station is no longer recommended at all. The lifetime of important mechanical and electrical components is exceeded and the installation is a high risk for fatal injury and dangerous for medical equipment at the hospital. Due to technical security standards the installation should be closed down immediately. *(see Annex for the complete expert evaluation)*

The reduced power output already resulted in a decrease of the health services the hospital is able to provide. Closing down the hydropower station would further limit Itete Hospitals´ capabilities. Therefore, the hospital management was forced to carefully assess the available energy sources for the hospital.

Itete Hospitals´ most relevant variables that guided its management in the decision process regarding its electric energy source were:

I. System reliability

Itete Hospital provides the service of all government programs relating to health care. Reliability of the energy source is one of the most important aspects for Itete Hospital. An unreliable energy source would add unnecessary challenges to the already challenging daily routine of the hospital.

Power disruptions result in a disruption of treatment programs or the inability to reliably use electrical appliances such as refrigerators and electronic diagnostic tools. If the cold chain is inoperable when supplies arrive, vaccines, blood, and other medicines (e.g. antiretroviral drugs for HIV-positive patients) go to waste. If the hospital is without lights, patients arriving at night must wait until morning to receive care. Furthermore, power disruptions damage even basic medical equipment and more sophisticated equipment that requires constant and stable electrical power cannot be used.

Unfortunately, Tanzania´s national grid, operated by Tanzania Electric Supply Company Limited (TANESCO), is characterized by frequent outages and voltage fluctuations. Power cuts are the result of insufficient electric power generation capacity and worn out production, transmission as well as distribution infrastructure. During a public hearing with members of the Parliamentary Parastatal Organizations Accounts Committee (POAC) on 26th March 2012 TANESCO has again officially announced countrywide power rationing.

During this hearing TANESCO quantified Tanzania´s current power generation capability at 718 MW while the demand is estimated at between 600 MW and 829 MW per day. With this numbers frequent power cuts as the result of insufficient electric power generation capacity are unavoidable. Additionally, TANESCO stated that various power cuts in the country are the result of system failures. TANESCO said it requires 1.3trn TZS to overhaul its worn out production, transmission and distribution infrastructure. Giving the statistics of TANESCO´s losses (2007: 69bn TSZ, 2008: 21bn TSZ, 2009: 43bn TSZ, 2010: 47bn TSZ) it is more than questionable that TANESCO will be able to raise the required funds in the near future. Therefore, Tanzania´s national grid will not be able to reliably supply electric energy in urban and especially in rural areas.

In light of Itete Hospitals´ explicit need for reliable electric energy supply the utilization of the national grid is not an option. TANESCO – the operator of Tanzania´s national grid – cannot guarantee a secure supply of electricity, yet keep the voltage constant. This makes the safe operation of medical equipment impossible.

II. Investment costs

In light of the fact that the tight annual budget already constrains the work of the hospital in various aspects it became clear that Itete Hospital doesn´t have the funds to install a new source of electric energy supply (e.g. solar panels). To further utilize the existing diesel electric generator was considered the option with the lowest investment cost. Additionally, Itete Hospitals´ technicians are trained to perform the necessary maintenance activities and small repairs.

What is the energy consumption profile of Itete Hospital?

To understand the basic energy needs to sustain its daily operations Itete Hospital conducted an inventory of the types of equipment used in the facility and the power required to operate each device. The result of this assessment is the energy consumption profile of Itete Hospital on an hourly, daily and annual basis (see Appendix).

2. Extension of renewable energy supply to three villages of Itete ward (Butola, Lupata and Kabembe)

The calculation of the baseline follows the procedure stated in AMS-III.BB.

The national grid – operated by TANESCO – passes through Itete ward. However, the community of Itete ward has no access to electricity services for domestic or commercial use because TANESCO did not install low tension or transformers. Due to limited funds – over 90% of the inhabitants of Rungwe District are still living with an income below the absolute poverty criteria of the UN (1 US$ per day) – the community itself cannot afford to purchase and install transformers.

The project activities involve households as well as public and private institutions. For newly electrified households Itete Hospital Hydropower Station will first of all provide minimum electricity services for lighting. According to AMS-III.BB and CDM-SSC WG 55th Meeting / Report Annex No. 5 the minimum service for lighting in rural households – 5 hours lighting per day with two 15W CFLs – results in an energy consumption of 55 kWh/year per household. In absence of this project activity households will continue to use kerosene lamps and consume 146 liters of kerosene annually for lighting services. At standard density, net calorific value and IPCC emissions this would result in GHG-Emissions of 0.374 tCO_2 e/year per household (6.8 kg CO_2 e/kWh). The baseline technology for other household appliances (energy consumption that exceeds 55 kWh per year) is assumed to be small scale diesel generators (15 kW to 35 kW, 50% load factor, see AMS-I.F Table I.F.1).

In accordance with AMS-III.BB the baseline technology for energy services to public and private entities (non-households) is assumed to be small scale diesel generators with emission factors of 1.0 tCO_2/kWh.

B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered micro-scale project activity:

B.6 Emission reductions:

B.6.1. Explanation of methodological options or description of new proposed approach:

>>

B.6.2. Data and parameters that are available at validation:

>> (Copy this table for each data and parameter)

Data / Parameter:	$EF_{CO2,y}$
Data unit:	kg CO_2e/kWh
Description:	Baseline emission factor for diesel generator powered mini-grid with storage and 100% load factor. Diesel generating unit with a capacity of >=35 <135 kW.
Source of data used:	Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories - AMS-I.F.
Value applied:	1.0 kg CO_2e/kWh
Justification of the	The mini-grid system at Itete Hospital is exclusively powered by generators that

choice of data or description of measurement methods and procedures actually applied:	use diesel fuel. The peak energy demand at Itete Hospital is in the range of >=35 < 135kW (see Annex 3).
Any comment:	

Data / Parameter:	$EF_{CO2,T1NM}$
Data unit:	tCO_2/MWh
Description:	Baseline emission factor based on the average annual electricity consumption of all Type I-NM consumers. Type I-NM consumers are newly electrified households with an expected consumption of up to 1000 kWh per year.
Source of data used:	Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories - AMS-III.BB.
Value applied:	If $EC_{T1NM,y}$ is less than or equal to 0.500 MWh/y, then: ▪ For the portion up to and including 0.055 MWh/y a default value of 6.8 (tCO_2/MWh), ▪ For the portion greater than 0.055 MWh/y and less than 0.25 MWh/y a default value of 1.3 (tCO_2/MWh) and ▪ For the portion greater than 0.250 MWh/y a default value of 1.0 (tCO_2/MWh) is applied. If $EC_{T1NM,y}$ is greater than 0.500 MWh/y a default value of 1.0 (tCO_2/MWh) is applied for the entire portion.
Justification of the choice of data or description of measurement methods and procedures actually applied:	Default values defined in AMS-III.BB.
Any comment:	

Data / Parameter:	$EF_{CO2,T1M}$
Data unit:	tCO_2/MWh

Description:	Baseline emission factor of all Type I-M consumers. Type I-M consumers are newly electrified households with an expected consumption of more than 1000 kWh per year.
Source of data used:	Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories - AMS-III.BB.
Value applied:	If $EC_{T1M,y}$ is less than or equal to 0.500 MWh/y, then: ▪ For the portion up to and including 0.055 MWh/y a default value of 6.8 (tCO_2/MWh), ▪ For the portion greater than 0.055 MWh/y and less than 0.25 MWh/y a default value of 1.3 (tCO_2/MWh) and ▪ For the portion greater than 0.250 MWh/y a default value of 1.0 (tCO_2/MWh) is applied. If $EC_{T1M,y}$ is greater than 0.500 MWh/y a default value of 1.0 (tCO_2/MWh) is applied for the entire portion.
Justification of the choice of data or description of measurement methods and procedures actually applied:	Default values defined in AMS-III.BB.
Any comment:	

Data / Parameter:	$EF_{CO2,T2}$
Data unit:	tCO_2/MWh
Description:	Baseline emission factor of all Type II consumers. Type II consumers are newly electrified non-households.
Source of data used:	Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories - AMS-III.BB.
Value applied:	1.0 kg CO_2e/kWh
Justification of the choice of data or description of measurement methods and procedures actually	Default value defined in AMS-III.BB.

applied:	
Any comment:	

Data / Parameter:	TL_p
Data unit:	%
Description:	Transmission and distribution losses within the project area.
Source of data used:	Indicative simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories - AMS-III.BB.
Value applied:	10%
Justification of the choice of data or description of measurement methods and procedures actually applied:	Default value defined in AMS-III.BB.
Any comment:	

B.6.3 Ex-ante calculation of emission reductions:

1. Emission reductions from rehabilitation of renewable energy supply for Itete Hospital

The ex-ante calculation of emission reductions from this project activity follows the baseline and monitoring methodology AMS-I.F.

Emission reductions from this project activity are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

For a mini-grid system where all generators use exclusively fuel oil and/or diesel fuel, the baseline emissions is the annual electricity generated by the renewable energy unit times an emission factor for a modern diesel generating unit of the relevant capacity operating at optimal load as given in Table I.F.1.of AMS-I.F.

$$BE_y = EG_{BL,y} * EF_{CO_2,y}$$

Table I.F.1 (AMS-I.F)

Emission Factors ($EF_{CO2,y}$) for diesel generator systems (in kg CO_2e/kWh*) for three different levels of load factors**

Cases:	Mini-grid with 24 hour service	(i) Mini-grid with temporary service (4-6 hr/day); (ii) Productive applications; (iii) Water pumps	Mini-grid with storage
Load factors [%]	25%	50%	100%
<15 kW	2.4	1.4	1.2
>=15 <35 kW	1.9	1.3	1.1
>=35 <135 kW	1.3	1.0	1.0
>=135<200 kW	0.9	0.8	0.8
> 200 kW***	0.8	0.8	0.8
*A conversion factor of 3.2 kg CO_2 per kg of diesel has been used (following revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories) **Values derived from figures reported in RETScreen International's PV 2000 model retrieved from: >http://retscreen.net/ ***Default values			

The peak energy demand at Itete Hospital is in the range of >=35 < 135kW (see Annex). For a mini-grid with storage the respective emission factor is:

$EF_{CO2,y} = 1.0\ kg\ CO_2e/kWh$

$PE_y=0$

$LE_y=0$

< see Annex for ex-ante calculation >

2. Emission reductions from extension of renewable energy supply to three villages of Itete ward (Butola, Lupata and Kabembe)

This project activity will serve approximately 500 households and 10 other institutions in Butola, Lupata and Kabembe.

The ex-ante calculation of emission reductions from this project activity follows the baseline and monitoring methodology AMS-III.B.B.

a. Baseline emissions are the sum of emissions associated with new consumers (Type I and Type II consumers) and existing consumers calculated as follows:

$$BE_y = BE_{T1,y} + BE_{T2,y} + BE_{exist,y} \quad \textbf{(1)}$$

Type I consumers are households. Type II consumers are non-households. Type I consumers are further classified as either Type I-NM or Type I-M consumers. Type I-NM consumers are newly electrified households with an expected consumption of up to 1000 kWh per year. Type I-M consumers are newly electrified households with an expected consumption of more than 1000 kWh per year. Their electricity consumption must be metered.

b. Baseline emissions of existing consumers are calculated as:

$$BE_{exist,y} = ED_{exist,y} * EF_{mgrid} \quad (2)$$

The existing mini-grid system only supplied electricity to Itete Hospital prior to the implementation of the project.

$$BE_{exist,y} = 0tCO_2$$

c. Baseline emissions of Type II consumers, $BE_{T2,y}$ are calculated as:

$$BE_{T2,y} = \sum_{i}^{N_y} EC_{T2,i,y} * EF_{CO2,T2} \quad (3)$$

It is expected that this project activity will serve appr. 10 Typ II consumers.

For the ex-ante calculation of the baseline emissions for Type II consumers it is assumed that the average annual energy consumption of a Typ II consumer is 1,000 kWh. This amount is sufficient for a school with around 8-10 classrooms and a small computer lab.

d. Baseline emissions of Type I consumers, $BE_{T1,y}$ are calculated as a function of total electricity consumed by all the Type I consumers and a baseline emission factor chosen based on the average annual electricity consumption of all Type I consumers.

$$BE_{T1,y} = \left(\left\lfloor EC_{T1NM,y} * NM_y \right\rfloor * EF_{CO2,T1NM}\right) + \left(\left\lfloor EC_{T1M,y} * M_y \right\rfloor * EF_{CO2,T1M}\right) \quad (4)$$

$$EC_{T1NM,y} = \left(EC_{tot\_T1NM,y}\right) \div NM_y \quad (5)$$

$$EC_{T1M,y} = \left(\sum_{j}^{M} EC_{T1M,j,y}\right) \div M_y \quad (6)$$

$$EC_{tot\_T1NM,y} = \left[\left(ED_{tot,y} - ED_{exist,y}\right) * \left(1 - TL_p\right)\right] - \sum_{i}^{N} EC_{T2,i,y} - \sum_{j}^{M} EC_{T1M,j,y} \quad (7)$$

Where:

$EF_{CO2,T1NM}$

- If $EC_{T1NM,y}$ is equal to or less than 0.055 MWh/y, a default value of 6.8 (tCO_2/MWh) is applied;
- If $EC_{T1NM,y}$ is less than or equal to 0.250 MWh/y but greater than 0.055 MWh/y, then:
  - For the portion up to and including 0.055 MWh/y, a default value of 6.8 (tCO_2/MWh) and
  - For the portion greater than 0.055 MWh/y, a default value of 1.3 (tCO_2/MWh) is applied.

- If $EC_{T1NM,y}$ is greater than 0.250 MWh/y but less than or equal to 0.500 MWh/y, then:
  - For the portion up to and including 0.055 MWh/y a default value of 6.8 (tCO_2/MWh),
  - For the portion greater than 0.055 MWh/y and less than 0.25 MWh/y a default value of 1.3 (tCO_2/MWh) and
  - For the portion greater than 0.250 MWh/y a default value of 1.0 (tCO_2/MWh) is applied.
- If $EC_{T1NM,y}$ is greater than 0.500 MWh/y, then a default value of 1.0 (tCO_2/MWh) is applied for the entire portion i.e. default values of 1.3 (tCO_2/MWh) or 6.8 (tCO_2/MWh) are not eligible for any of the portions.

$EF_{CO2,T1M}$

- If $EC_{T1M,y}$ is equal to or less than 0.055 MWh/y, a default value of 6.8 (tCO_2/MWh) is applied.
- If $EC_{T1M,y}$ is less than or equal to 0.250 MWh/y but greater than 0.055 MWh/y, then:
  - For the portion up to and including 0.055 MWh/y, a default value of 6.8 (tCO_2/MWh) and
  - For the portion greater than 0.055 MWh/y, a default value of 1.3 (tCO_2/MWh) is applied.
- If $EC_{T1M,y}$ is greater than 0.250 MWh/y but less than or equal to 0.500 MWh/y, then:
  - For the portion up to and including 0.055 MWh/y a default value of 6.8 (tCO_2/MWh),
  - For the portion greater than 0.055 MWh/y and less than 0.25 MWh/y a default value of 1.3 (tCO_2/MWh) and
  - For the portion greater than 0.25 MWh/y a default value of 1.0 (tCO_2/MWh) is applied.
- If $EC_{T1M,y}$ is greater than 0.500 MWh/y then a default value of 1.0 (tCO_2/MWh) is applied for the entire portion i.e. default values of 1.3 (tCO_2/MWh) or 6.8 (tCO_2/MWh) are not eligible for any of the portions.

For transmission and distribution losses (TL_p) within the project area the default value of 10% as mentioned in AMS-III.BB is applied.

< see Annex for ex-ante calculation >

B.6.4 Summary of the ex-ante estimation of emission reductions:

>>

Year	Estimation of project activity emission (tCO_2)	Estimation of baseline emissions (tCO_2)	Estimation of leakage (tCO_2)	Estimation of overall emission reductions (tCO_2)
Year 1	0	547	0	547
Year 2	0	567	0	567
Year 3	0	588	0	588
Year 4	0	610	0	610
Year 5	0	633	0	633
Year 6	0	645	0	645
Year 7	0	657	0	657
Total (tCO_2)	0	4,247	0	4,247

B.7 Application of a monitoring methodology and description of the monitoring plan as per the existing or new methodology applied to the micro-scale project activity:

B.7.1 Data and parameters monitored:

Data / Parameter:	$EG_{BL,y}$
Data unit:	MWh/y
Description:	Quantity of net electricity displaced as a result of the implementation of the project activity in year y at Itete Hospital.
Source of data to be used:	Energy meter (at Itete Hospital)
Value of data	-
Description of measurement methods and procedures to be	Measurements are undertaken using energy meters. Continuous monitoring, hourly measurement and monthly recording.

applied, inc. frequency:	
QA/QC procedures to be applied:	Frequent calibration of energy meters
Any comment:	

Data / Parameter:	**Cap_{PJ}**
Data unit:	W
Description:	Installed capacity of the hydro power plant after the implementation of the project activity
Source of data to be used:	Project site
Value of data	
Description of measurement methods and procedures to be applied, inc. frequency:	Determine the installed capacity
QA/QC procedures to be applied:	Frequent calibration of energy meter
Any comment:	

Data / Parameter:	**$ED_{to,y}$**
Data unit:	MWh/y
Description:	Electricity delivered to consumers from the grid/mini-grid system
Source of data to be used:	Master meters

Value of data	
Description of measurement methods and procedures to be applied, inc. frequency:	Measurements are undertaken using Master meters. The measurement will be taken at the nearest pre-existing substation from which the electrification project is supplied. Continuous monitoring, hourly measurement and at least monthly recording.
QA/QC procedures to be applied:	
Any comment:	

Data / Parameter:	**$EC_{T2,i,y}$**
Data unit:	MWh/y
Description:	Electricity metered at Type II consumer i
Source of data to be used:	Electricity meters at each of the Type II facilities
Value of data	
Description of measurement methods and procedures to be applied, inc. frequency:	Continuous monitoring, hourly measurement and at least monthly recording
QA/QC procedures to be applied:	Frequent calibration of energy meters
Any comment:	

Data / Parameter:	**$EC_{T1M,j,y}$**
Data unit:	MWh/y

Description:	Electricity metered at Type I-M consumer j, expected to consume more than 1000 kWh/y
Source of data to be used:	Electricity meters at each of the facilities
Value of data	
Description of measurement methods and procedures to be applied, inc. frequency:	Continuous monitoring, hourly measurement and at least monthly recording
QA/QC procedures to be applied:	
Any comment:	

Data / Parameter:	**Proportion of N_y, NM_y, $N_{exist,y}$ and M_y having access to the mini-grid**
Data unit:	
Description:	Check for continued access to electricity
Source of data to be used:	Survey
Value of data	
Description of measurement methods and procedures to be applied, inc. frequency:	Annual/biennial check that grid connections are still working, done for a statistically significant sample of consumers. 90/10 and 95/10 precision is applied for annual and biennial checks, respectively
QA/QC procedures to be applied:	
Any comment:	

B.7.2 Description of the monitoring plan:

B.8 Date of completion of the application of the existing or new baseline and monitoring methodology and name of the responsible person(s)/entity(ies)

>>

SECTION C. Duration of the project activity / crediting period

C.1 Duration of the project activity:

C.1.1. Starting date of the project activity:

1st January 2013 (expected)

C.1.2. Expected operational lifetime of the project activity:

30 years – 0 months

C.2 Choice of the crediting period and related information:

C.2.1. Renewable crediting period

C.2.1.1. Starting date of the first crediting period:

1st January 2014 (expected)

C.2.1.2. Length of the first crediting period:

7 years – 0 months

C.2.2. Fixed crediting period:

C.2.2.1. Starting date:

>> -

C.2.2.2. Length:

>> -

SECTION D. Stakeholders' comments

D.1. Brief description how comments by local stakeholders have been invited and compiled:

In order to inform relevant stakeholders and receive their comments on the planned project a meeting was organized and held at Itete Hospital on Friday 10th August 2012.

People from the following stakeholders / groups of stakeholders were invited:

- Local people impacted by the project or official representatives
- Local policy makers and representatives of local authorities
- Local non-government organizations working on topics relevant to the project
- The local Gold Standard expert who is located closest the project location
- Relevant international non-governmental organizations (NGOs) supporting the Gold Standard (GS), with a representation in the region and all GS supporter NGOs located in Tanzania

Altogether 50 invitations were given out to organizations and individuals. Invitations were given out by email or delivered personally. Invited people / organizations that were not able to attend the meeting were asked to give their feedback on the project via email or via mail.

Invitation etter

KANISA LA KIINJILI LA KILUTHERI TANZANIA
DAYOSISI YA KONDE
S. L. P. 445 TUKUYU-TANZANIA

KKKT
ELCT

EVANGELICAL LUTHERAN CHURCH IN TANZANIA
KONDE DIOCESE
P. O. BOX 445 TUKUYU-TANZANIA
Tel: +255-025-2552006 - Bishop's office
+255-025-2552598 - General line
Fax: +255-025-2552298

Tarehe/Date 13rd July, 2012

To,

- Energy and Water Utilities Regulatory Authority (EWURA),
- Rural Energy Agency (REA),
- African People & Wildlife Fund,
- Centre for Sustainable Modern Energy Expertise (TaTEDO),
- GTZ (German-Tanzanian) Wildlife Programme in Tanzania
- Tanzania Natural Resource Forum
- WWF Tanzania
- REEEP Regional Secretariat Southern Africa
- Helio International
- Care International
- Greenpeace Africa
- E+Co East Africa
- National Environmental Management Council.

RE: REHABILITATION AND EXTENSION OF ITETE HOSPITAL HYDROPOWER STATION - INVITATION TO STAKEHOLDERS CONSULTATION MEETING

Evangelical Lutheran Church in Tanzania-Konde Diocese (ELCT-KOD)-Itete Hospital-Itete Hospital intends to implement the project of "Rehabilitation and Extension of Itete Hospital Hydropower Station". You are kindly invited to attend a Stakeholders Consultation Meeting to discuss the project design and its potential environmental and social impacts.

The meeting will be held on 10th August, 2012 at Itete Hospital, Itete / Rungwe District. The meeting will start at 10:00 AM.

Your coming will be highly appreciated.

Should you not be able to attend our meeting we would appreciate your feedback on the project via email (anyitikeflaston@yahoo.com) or in writing (Itete Hospital, P.O. Box 170, Tukuyu-Mbeya, Tanzania).

Please find attached a short outline of the project.

Wishig you all the best.

Thanks.

Yours,
ELCT-Konde Diocese,

Flaston M. Anyitike
Project Coordinator.

CC: ELCT-KOD Officers,
Doctor in charge-Itete Hospital
Health Director-ELCT KOD

*This **non-technical summary** has been send together with the invitation letter:*

Rehabilitation and Extension of Itete Hospital Hydropower Station

NON – TECHNICAL SUMMARY

GENERAL INFORMATION
Evangelical Lutheran Church In Tanzania (ELCT) - Konde Diocese Itete Hospital intends to implement the project of rehabilitation and extension of Itete Hospital Hydro Hydropower Station. The project is expected to start in January 2013 and will take approximately one year.

Project location: Itete ward, Rungwe District in Mbeya Region, Tanzania

Planned capacity: 100 – 150kW

BACKGROUND
Itete Hospital used to get its electricity mainly from the hospital owned hydropower station. In resend years however the amount of energy produced by the run out hydropower station was by far not enough to properly run the hospital. The impact of lower power supply has resulted in limited health service delivery to the surrounding community. It as well hindered to implement the original idea of supplying the electricity services to three the villages of Kabembe, Butola and Lupata. Therefore, the re-establishment of energy services from Itete Hydropower Station is very much needed.

EXPECTED OUTCOME
The main project objective is re-establishing affordable and reliable energy services for Itete Hospital to sustain and improve health care services for the people in the region. In addition, Itete Hospital might also be able to sell some surplus energy to the villages of Kabembe, Butola and Lupata at the Itete ward during rainy season.

PLANNED ACTIVITIES
The main activities of the project are (1) the replacement of the run out equipment (e.g. replacement of the old turbine with a theoretical power output of 70 kW with a new turbine that has a power output of 100 – 150kW), (2) minor technical adjustments to the retaining dam and (3) some repairs at the transmission line.

EXPECTED ENVIRONMENTAL IMPACT
The project will reduce the consumption of fossil fuel and therefore contribute to the mitigation of climate change on a global level and the prevention of deforestation in the Mbeya Region.
The civil structures of Itete Hydropower Station have been in place since 1990 and would continue to exist even without the project. Therefore, from today's point of view the project activity itself will not have any negative impacts on plants, animal life and biodiversity.

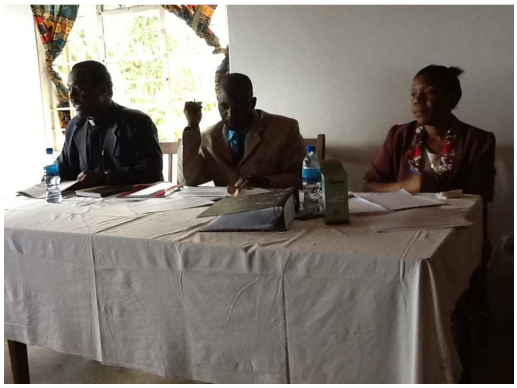
Stakeholder Invitation Tracking Table

see Annex

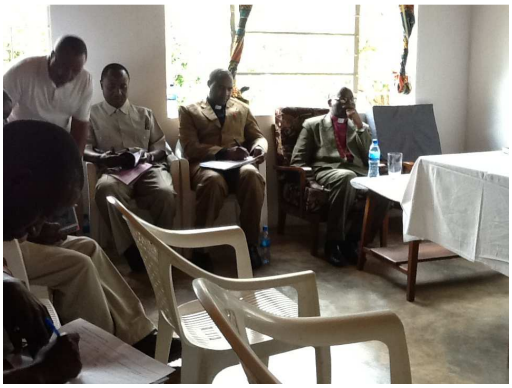
Participants List of Stakeholder Consultation

see Annex (36 participants)

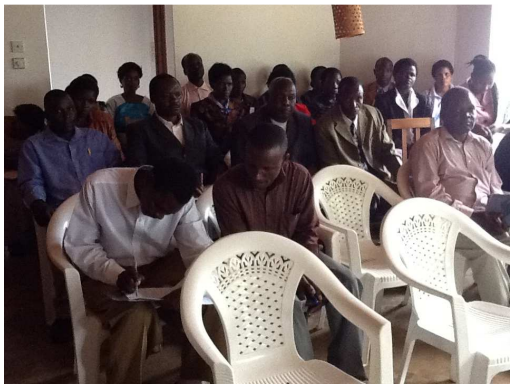
Pictures of the Stakeholder Consultation Meeting



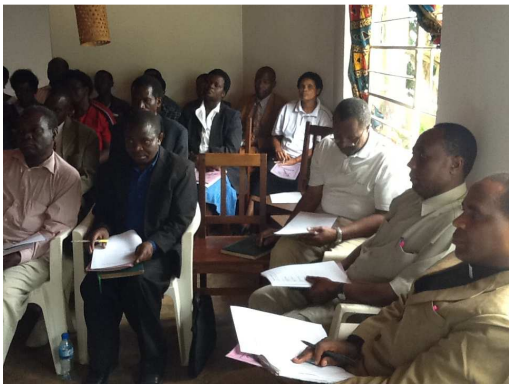
Picture 5: Leaders of the meeting



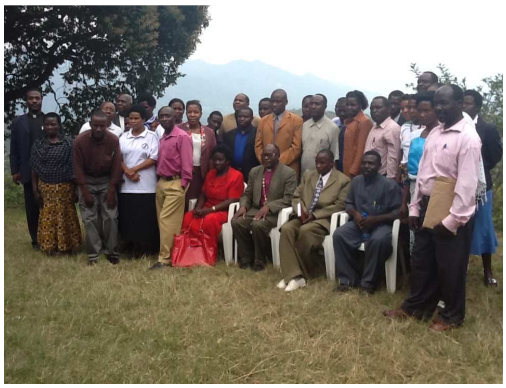
Picture 6: Representatives ECLT-KOD



Picture 7: Participants



Picture 8: Participants



Picture 9: Participants + Representatives of ELCT-KOD

EVANGELICAL LUTHERAN CHURCH IN TANZANIA KONDE DIOCESE (ELCT-KOD)

Rehabilitation and Extension of Itete Hospital Hydropower Station

Stakeholder Consultation Meeting

Minutes

Date of the meeting: 10th August, 2012

Place of the meeting: Itete Hospital

I. Opening of the Meeting

The Stakeholder Consultation Meeting started at 11:00 AM with a short prayer from the Assistant to the Bishop of ELCT-Konde Diocese – Rev. Gofrey Mwakihaba. Subsequently, the chairperson and the minutes writer were selected. Rev. Mwakihaba was appointed to become the chairperson and Mrs. Nsombo as well as Rev. Mwasakilali were appointed to become the minute writers.

The opening of the meeting was done by the Bishop of ELCT-Konde Diocese, Dr. Israel Peter Mwakyolile. He started by thanking God for making all participants healthy and thanking all participants for attending the meeting. The Bishop explained the mission of ELCT-KOD that is bringing Good News and better life for all people without any kind of discriminations. He pointed out that Itete Hospital without proper working facilities and reliable electrical power is not able to sustain proper health care services for the people in the region.

He gave thanks to all Itete ward-Busoka village dwellers for conserving the environment at Bugema the location of the headwaters of the Kasyabone river on which Itete Hospital Hydropower Station is located. After opening the meeting, he handed over the responsilities to the chairman (Rev. Mwakihaba) to continue with the next agenda item.

Before Rev. Mwakihaba proceeded to give details on the project he explained the participants that the intention of the stakeholder consultation meeting is to inform about the project and to discuss the planned project activities. Rev. Mwakihaba also pointed out that ELCT-Konde Diocese holds this meeting to get suggestions on how to improve the project, the environment that has an impact on / that is impacted by the Itete Hospital Hydropower Station and the living standard of the surrounding community members.

II. Explanation of the Project

Rev. Mwakihaba explained that at present, Itete Hospital Hydropower Station is in very bad conditions due to the outdated equipment. The production capacity of the station is now below 20 KW compared to originally 70 KW. The current amount of energy produced by the run out station is already today by far not enough to properly run the hospital and will by no means be sufficient to provide proper health care services for the people in the region in the future.

The environment that has an impact on / that is impacted by the Itete Hospital Hydropower is well protected and reserved due to the efforts of the community members.

Rev. Mwakihaba explained that the main activity of the project is the replacement of the run out equipment. The old turbine with a theoretical power output of 70 kW will be replaced with a new turbine that has a power output of 100 – 150kW. The project will be implemented over period of nine to twelve months (9 -12 months).

III. Questions and Discussion

Rev. Mwakihaba asked the participants whether they have any questions or comments on what has been said so far about the project.

1. ***Question / Comment***

Word from a representative: "The today's action has made people very happy, because it is not every religious institution has the capacity to do implement such kind of project for her respective community, so as the representative we accept and approve this project without ant kind of restrictions".

2. ***Question / Comment***

With respect to insufficient water flow for the hydropower station during some dry seasons, one participant suggested that education on the preservation of environment around the water source should be provided to the respective community members.

3. ***Question / Comment***

Local technicians should be trained to maintain and repair the equipment of the hydro power station to avoid the current problem of having no local experts.

4. ***Question / Comment***

Will the current water flow be affected by the project? *Answer:* The current water flow will not change. The weir – that already exists – will divert some water to the power house. There it will be used to generate electricity and be immediately re-directed back to the river without losses.

5. ***Question / Comment***

Hon. Councillor from Lupata Ward and a Lupata Village Executive Officer requested to extend and provide the energy services as much as possible. The previously project *[when the hydropower station was originally build]* promised but eventually failed to provide power even to community members houses. Therefore, the Councillor requests

to extend and provide power services even to community members' houses and public community offices as much as possible with this project.

The Chairman of the village of Kabembe and the Chairman of the village of of Bosoka had similar comments.

Answer: The restoration of hydropower services for Itete Hospital will already improve of community members' life, since the hospital improves their health services. Additionally, electricity service will be extended to the extend feasible.

6. Question / Comment

The Chairman of the village of Bosoka thanked the church for including the community in the project. He also mentioned the issue of cutting down trees by community members in the catchment area of the river. A Councillor of Lupata added that they consider the protection of the environment as their responsibility where they control the area.

7. Question / Comment

Councillor Itete Ward thanked the church for the continued care for the environment and suggested to further extend education for people in this respect. He also thanked the technicians who maintained the hydropower station over time.

8. Question / Comment

The Representative of Nyasa River Basin Management said that it is a great fortune to have donor for a the project of this kind. He thanked all community members who are continuing to protect the environment especially at the river source. He added: Previously, the law only allowed Tanzania Electricity Company Limited (TANESCO) to distribute electricity in the country, but after discovering that the system has a lot of weaknesses, now the opportunity has given even to private and individual sectors to distribute electricity/power. Freedom of investing to various water sources by investors have been provided, but they should adhered by laws and national environmental protection policy. This is a great opportunity to Rungwe District which its large parts have been surrounded by rivers compared to other district that do not have even one source of river.

After some sustainable development issues were already addressed through the participants with their questions / comments further issues regarding the sustainable development categories: (i) environment (ii) social development and (ii) technological &

economic development were discussed. The participants expressed that the project has a positive impact on all the indicators considered relevant to the project.

IV. The Way Forward

The participants agreed on the following next steps:

a) To improve and renovate the road that goes to the source of hydro station from Monday, 13 2012.

[A request to Busoka Village Executive Officer and his government (village government of Busoka) was made to start with preliminary work of renovating a road (rough road) to the river source. Important: Any activities at river source should start at least from a distance of 60 meters. Community members should agree to start at a certain distance and finally reach to a distance of 60 meters.]

b) Publications and sensitization to the church followers and the community members on the important of conserving and protecting environment especially source of water.

c) To educate the community members through their wards and village office on the importance of conserving environment especially at the river source.

d) To plant trees those are friendly to the environment at the river sources in order to improve environment.

e) To use River Basin office in order to get technical advices and suggestions on the way of utilizing our own resources for our own benefits.

f) To prepare experts of the area in order to solve all technical problems that may rise as results of damage of machine.

g) To create by law that will precipitate community members to preserve and conserve source of water and environmental in general. Those by laws should be applied mainly in those three villages where the project will be implemented.

h) To improve security of the project from the beginning in order to be sustainable.

i) To improve communication in any means from the respective villages levels to the executives in the projects

j) To create special committee for this project in order to be a source of information.

The special committee created from this meeting are as follows:

s/n	Name	Areas of working	Current position
1	Flaston M.Anyitike	ELCT-KOD, HQ	Diocesan Director for Planning and Socio-Economic Projects
2	Owen Jackson	ELCT-KOD, HQ	Assistant Planning and Socio-Economic Project Officer
3	Gwamaka Somola John M.	Busoka ward -	Chairman, Ward Executive Director
4	Webson Mwampunga Ezelina Nkunga.	Lupata -	Chairman, Ward Executive Director
5	Alesi K. Mwakasitu N. Kimira	Kabembe -	Chairman, Ward Executive Director(WEO)
6	Ipyana A Mwaipopo and Ambonisye L. Mwankenja	Technicians	Hospital Technicians
7	Cecilia Nsombo	Itete Hospital	Itete Hospital Administrator

NB: All three Councillors from the project areas will be advisors and catalysts to their respective community members

V. Feedback Forms

At the end of the meeting a feedback form was distributed to the participants. In this form the participants are requested to answer the following questions:

- What is your impression of the meeting?
- What do you like about the project?
- What do you not like about the project?

29 participants filled out their feedback forms.

VI. Closure of the Meeting

The stakeholder consultation meeting closed at 9:15 PM by short prayers from the ELCT Konde Diocese Director for Health.

D.2. Summary of the comments received:

The ***comments received during the meeting*** can be found in the minutes. *[Please see section D.1. of this report.]*

Summary of comments received via the feedback forms

29 participants commented on the project and the stakeholder consultation meeting with the feedback form that was handed out and collected at the end of the meeting. The received feedback and comments are mainly positive. Regarding the quality of the meeting most of the participants expressed that the meeting was very well organized and that everybody had the chance to contribute towards the goal of having a project that has a positive impact on social as well as economic development and that conserves the environment. The comments on the project can be summarized as follows:

Positive aspects of the project

- Electricity for Itete Hospital
- Electricity for villages of Itete ward
- Positive impact on social and economic development
- High importance placed on protecting the environment
- Sensitization and education of the community regarding the protection of the environment at the source of / along the river
- Involvement of the community during project planning phase
- Employment for local people during project implementation
- Training and employment for technicians

Negative aspects of the project

- Insufficient power capacity of the hydropower station to secure electricity supply to all households and public / private institutions in the area
- Potential conflicts in choosing households and public / private institutions that will receive electricity from the hydropower station

Furthermore, two aspects were mentioned that have a negative impact on the project but are not the result of the project. These aspects are agricultural activities and deforestation at the source of the river.

Copies of the feedback forms are included in this report under the Annex.

D.3. Report on how due account was taken of any comments received and on measures taken to address concerns raised:

Some comments concentrate on aspects ELCT-KOD already considered in the planning process. Nevertheless, any aspect raised in the stakeholder consultation meeting will be given special attention in the next steps of this project.

Stakeholder comment	Comment taken into account (Yes / No)	Explanation (Why / How)
Lack of skilled technicians for maintenance / repair of a hydropower station in the area	Yes	Technicians of Itete Hospital that take care of the hydropower station will get additional training. Employing additional technicians will be considered.
Sensitization and education of the community regarding the protection of the environment at the source of / upstream along the river	Yes	ELCT-KOD will sensitize and educate its members and the community members on the importance of conserving and protecting the environment especially at the source of the river. Wards and village offices will sensitize and educate the community members on the importance of conserving and protecting the environment especially at the source of the river.
Insufficient power capacity of the hydropower station to secure electricity supply to all households and public / private institutions in the area	Yes	ELCT-KOD is aware that the community of Itete ward has a great need for basic energy services. Unfortunately, it is not possible to secure electricity supply to all households and public / private institutions in the area with the limited potential of the project site (water quantity, head). Since Itete Hospital is fundamental in the provision of health care to more than 30,000 people the Rungwe District the first priority of the project is the rehabilitation of reliable energy supply to Itete Hospital. Nevertheless, high priority is also given to the extension of basic energy services to the villages to the greatest possible extend. A special committee *[see next comment]* will help to facilitate this process.
Potential conflicts in choosing households and public / private institutions that will receive electricity from the hydropower station	Yes	A special committee for this project was formed during the stakeholder meeting. This committee (representatives of ELCT-KOD, Chairpersons / Ward Executive Directors of Busoka ward, Lupata and Kabembe village, representatives of Itete Hospital) will improve communication

		between the respective village levels to the project owner (ELCT-KOD). All three Councillors from the project areas will act as advisors and catalysts to their respective community members.
Involvement of the community in the process ahead	Yes	*[see previous comment]*
Agricultural activities and deforestation at the source of the river	Yes	Agricultural activities and deforestation are not the result of project activities. Nevertheless, since damage to the environment at the source of the river or upstream along the river negatively effects water quality and quantity at Itete Hospital Hydropower Station. ELCT-KOD and the respective wards /village offices will undertake joined efforts so sensitize and educate the respective community members on the importance of conserving and protecting the environment at the source of the river and along the river. Additionally, the planting of trees that support the environmental conservation at the source of the river is being considered.

D.4. Report on the Continuous input / grievance mechanism:

ELCT-KOD implements a continuous input/grievance mechanism to solicit feedback from stakeholders on unforeseen issues throughout the operational phase of the project. The participants of the stakeholder meeting agreed to form a special committee with representatives of ELCT-KOD, Chairpersons / Ward Executive Directors of Busoka ward, Lupata and Kabembe village and representatives of Itete Hospital to optimize communication between the stakeholders and the project owner (ELCT-KOD).

	Method chosen (include all known details e.g. location of book, phone, number, identity of mediator)	**Justification**
Continuous Input / Grievance Expression Process Book	Feedback will be document and handled by the management of Itete Hospital. Any issues that cannot be solved by the management of Itete Hospital will be discussed in the committee formed during the stakeholder meeting. The project owner can be conducted via:	The project owner has representatives close to the project site and provides stakeholders with the respective points of contact. The special committee will optimize the communication between the stakeholders and the project

	▪ Management / Board of Itete Hospital [Mrs. Cecilia Nsombo, Itete Hospital Administrator, +255-782837887, cesydolly@yahoo.com] ▪ Headquarter of ELCT-KOD [Mr. Flaston M. Anyitike, Director for Planning, +255-252 552598, anytikeflaston@yahoo.com] ▪ Chairpersons / Ward Executive Directors of Busoka ward, Lupata and Kabembe that are members of the special committee formed during the stakeholder meeting	owner (ELCT-KOD). Additionally, it will be the framework in which feedback from stakeholders on unforeseen issues throughout the operational phase of the project can be discussed.
Telephone access	*[see above]*	
Internet/email access	*[see above]*	

D.5. Report on stakeholder consultation feedback round:

The stakeholders invited for participation in the local stakeholder consultation will receive / have access to the summary of this stakeholder feedback report for further comments.

Annex 1

CONTACT INFORMATION ON PARTICIPANTS IN THE PROJECT ACTIVITY

Organization:	Evangelical Lutheran Church in Tanzania Konde Diocese
Street/P.O.Box:	P.O. Box 445
Building:	
City:	Tukuyu-Mbeya
State/Region:	
Postfix/ZIP:	
Country:	Tanzania
Telephone:	+255-252 552598
FAX:	
E-Mail:	elctkod@yahoo.com
URL:	
Represented by:	Flaston M. Anyitike
Title:	Director for Planning
Salutation:	
Last Name:	Anyitike
Middle Name:	M.
First Name:	Flaston
Department:	Planning and Socio-Economic Development Directorate
Mobile:	+255-786271450
Direct FAX:	
Direct tel:	
Personal E-Mail:	anytikeflaston@yahoo.com

Organization:	Klima ohne Grenzen gemeinnützige GmbH
Street/P.O.Box:	Grassistr. 12
Building:	
City:	Leipzig
State/Region:	
Postfix/ZIP:	04107
Country:	Germany
Telephone:	+49 341 253564-15
FAX:	+49 341 253564-16
E-Mail:	info@climate-borders.org
URL:	www.climate-borders.org
Represented by:	Christian Bachmann
Title:	Managing Director
Salutation:	
Last Name:	Bachmann
Middle Name:	
First Name:	Christian
Department:	
Mobile:	
Direct FAX:	
Direct tel:	
Personal E-Mail:	

Annex 2

Stakeholder Invitation Tracking Table

Stakeholder Invitation Tracking Table					
Date, Time: 10th August 2012, 10:00 am					
Location: Itete Hospital, Itete Ward					
Category code	**Name of invitee**	**Organization (if relevant)**	**Way of invitation**	**Date of invitation**	**Confirmation received? Y/N**
D	Bishop Dr. Israel Peter Mwakyolile	ELCT-Konde Diocese,Head Office	By hand	06/7/2012	Yes
D	Rev.Pr.Mechack Edward Njinga	ELCT-Konde Diocese,Head Office	By hand	06/7/2012	Yes
D	Rev.Samwel J. Mwansasu	ELCT-Konde Diocese-Head Office	By hand	06/7/2012	Yes
B	Rev.Isai B.M. Mwakisambwe-Ward Chancillor	ITETE	By hand	06/7/2012	Yes
B	Komboteka K.Mwaikuka-Itete ward concillor	Itete	By hand	06/7/2012	Yes
B	Mbamba, U.A- ward Councillor	Lupata	By hand	06/7/2012	Yes
A	Gervas A. Mwampale	Itete	By hand	06/7/2012	Yes
A	Happiness M.Elius-	Itete hospital treasurer	By hand	06/7/2012	Yes
A	Bibane, P.	Lupata	By hand	06/7/2012	Yes
B	Webson A Mwambuga-Ward Executive Officer	Lupata	By hand	06/7/2012	Yes
D	Rev.John Mwasakilali	ELCT-Konde Diocese	By hand	06/7/2012	Yes
B	Ndigwako M.Mwasamdongila-Member of parliament representative	Rungwe Eastern Province	By hand	06/7/2012	Yes
A	Mwambambale EM.K	Lugombo	By hand	06/7/2012	Yes
A	Tulipona Kibuja	Kabembe	By hand	06/7/2012	Yes
A	Tukusuma Ipasi	Kabembe	By hand	06/7/2012	Yes
A	Alesi Kibinga	Kabembe	By hand	06/7/2012	Yes
A	Bathsheba A. Mwamaso	Kabembe	By hand	06/7/2012	Yes

A	Eston S.Mwakabandila	Kibole	By hand	06/7/2012	Yes
A	Ipyana A. Mwaipopo	Itete Lutheran Hospital	By hand	06/7/2012	Yes
A	Ambonisye L. Mwankejela	Itete Lutheran Hospital	By hand	06/7/2012	Yes
A	Tumwitikege Nazarete Mwamwaja-Patron	Itete Lutheran Hospital	By hand	06/7/2012	Yes
B	Gwamaka Somola- Ward Executive Officer	Busoka	By hand	06/7/2012	Yes
A	Zawadi Mbeleko	Busoka	By hand	06/7/2012	Yes
B	John Mwandunga-Ward Executive Officer	Busoka	By hand	06/7/2012	Yes
A	Ismail Mwaisumo	Busoka	By hand	06/7/2012	Yes
A	Alfred Mwakanyamale	Busoka	By hand	06/7/2012	Yes
A	Modesta D. Mihambu	Kabembe	By hand	06/7/2012	Yes
A	Frank A. Mwanjala	Kabembe	By hand	06/7/2012	Yes
A	Christina Daniel-Nurse	Itete Lutheran Hospital	By hand	06/7/2012	Yes
A	Tumpe Mwandumbya	Itete	By hand	06/7/2012	Yes
A	Atubonekisye Mwaipaja	Lupata ward	By hand	06/7/2012	Yes
C	Mr. Richard S. Muyungi	DNA Tanzania, Division of Environment, Vice-President´s Office	By E-Mail	10/7/2012	No
E	Mrs. Nahla Sabet (Regional Manager-Africa)	The Gold Standard Foundation	By E-Mail	10/7/2012	Yes
E	Mrs. Heba Rabie (Regional Manager-Africa)	The Gold Standard Foundation	By E-Mail	10/7/2012	Yes
B	Director General	Energy and Water Utilities Regulatory Authority (EWURA)	By E-mail, and by hand	13/7/2012	No
B	Director General	Rural Energy Agency (REA)	e-mail and by hand	13/7/2012	No
D	Mr.Estomih Sawe-Executive Director	Centre for Sustainable Modern Energy Expertise (TaTEDO)	By E-mail	13/7/2012	No
F	General Contact	Greenpeace Africa	By E-mail	13/7/2012	No

F	Andrew Marquard-Reginal Coordinator	Helio International	By E-mail	13/7/2012	No
D	General Contact	National Environmental Management Council	By E-mail	13/7/2012	No
F	General contact	WWF Tanzania	By E-mail	13/7/2012	No
D	General Contact	GTZ (German-Tanzanian) Wildlife Program in Tanzania.	By E-mail	13/7/2012	No
D	General contact	African People & Wildlife Fund	By E-mail	13/7/2012	No
D	General contact	Tanzania Natural Resource Forum	By E-mail	13/7/2012	No
F	Care international secretariat	Care International	By E-mail	13/7/2012	No
F	Mr.Jason Schaeffler	REEEP Regional Secretariat Southern Africa	By E-mail	13/7/2012	No
F	General contact	E+Co East Africa	By E-mail	13/7/2012	No
B	District Executive Officer	Rungwe District Council	By E-mail	13/7/2012	No
B	District Manager	Tanzania Electricity Supply Company Limited (TANESCO).	By hand	13/7/2012	No
B	Zonal Manager	Nyasa River Basin Management	By hand	13/7/2012	Yes

Annex 3

Participants List of Stakeholder Consultation [Typed Copy]

Participants List of Stakeholder Consultation		
Date, Time: 10th August 2012, 10:00 am		
Location: Itete Hospital, Itete Ward		
Name of participant	**Gender**	**Area of resident/organization**
Bishop Dr. Israel Peter Mwakyolile	Male	ELCT-Konde Diocese,Tukuyu
Rev.Pr.Mechack Edward Njinga	Male	ELCT-Konde Diocese,Tukuyu
Rev.Samwel J. Mwansasu	Male	ELCT-Konde Diocese,Tukuyu
Linus J. Kindwangise	Male	Lake Nyasa Basin
Rev.Isai B.M. Mwakisambwe	Male	ELCT-KOD,Central District
Komboteka K.Mwaikuka	Male	Itete ward- Chancellor
Mbamba, U.A	Male	Lupata ward-Chancellor
Gervas A. Mwampale	Male	Itete
Happiness M.Elius	Female	Itete Hospital-Treasurer
Owen Jackson	Male	ELCT-KOD- Head Office
Bibane, P.	Female	Lupata
Webson A Mwambuga	Male	Lupata
Rev.John Mwasakilali	Male	ELCT-KOD
Ndigwako M.Mwasamdongila	Female	Member of parliament representative office
Mwambambale EM.K	Female	Lugombo
Tulipona Kibuja	Female	Kabembe
Tukusuma Ipasi	Female	Kabembe
Alesi Kibinga	Female	Kabembe
Bathsheba A. Mwamaso	Female	Kabembe
Eston S.Mwakabandila	Male	Kibole
Ipyana A. Mwaipopo	Male	Hospital technician
Ambonisye L. Mwankejela	Male	Hospital technician
Tumwitikege Nazarete Mwamwaja	Female	Hospital matron
Gwamaka Somola	Female	Busoka
Zawadi Mbeleko	Female	Busoka
John Mwandunga	Male	Busoka
Ismail Mwaisumo	Male	Busoka
Alfred Mwakanyamale	Male	Busoka
Modesta D. Mihambu	Female	Kabembe
Frank A. Mwanjala	Male	Kabembe
Christina Daniel	Female	Itete Hospital-nurse
Tumpe Mwandumbya	Female	Itete Luth.Hospital-nurse
Atubonekisye Mwaipaja	Male	Lupata-ward
Cecilia Nsombo	Female	Secretary-Itete Hospital
Flaston Anyitike	Male	ELCT-KOD, Project coordinator
Nabwike Cheyo	Male	Doctor in charge-Itete Hospital

Annex 4

Original Participants List with Signatures and Contact Details

Template No. 2: Participants' list

(Print as many copies as needed.) (Note: Please use a translated copy of this template, if English is not the most appropriate language for your meeting.)

Location:				
Name of participant, job/ position in the community	Male/ Female	Signature	Organisation (if relevant)	Contact details (Phone / Address / Email)
BISHOP DR. ISRAEL-PETER MWAKYOLILE	MALE		ELCT KONDE DIOCESE Box 445 Tky	071 … er 1956@ …hoo.com
Pastor (DEAN) GEOFFREY Samuel Mwakihaba	Male		ELCT KONDE DIOCESE Box 445 TKY	geoffre… 078… …com
Rev. Pr. Meshack Edward Njinga	Male		ELCT KONDE DIOCESE Box 445 TKY	menj… 075…
Rev. Samwel J. Mwansasu	Male		ELCT Konde Diocese	smu… 0… yahoo.com 87
LINUS J. KIDWANGISE	male		Lake nyasa Basin	07677… sise@…
REV. ISAI B.M. MWAKISAMBWE	"		ELCT-Konde Diocese CENTRAL DISTRICT	0787… 0757…
H.K. Mwaikuka	me		Hete	07…
U.A. MBAMBA	me		Lupata	07… 6

Full contact details can be provided upon request.

15

Template No. 2: Participants' list

(Print as many copies as needed.) (Note: Please use a translated copy of this template, if English is not the most appropriate languag[e for] your meeting.)

Location:

Name of participant, job/ position in the community	Male/ Female	Signature	Organisation (if relevant)	Contact details (Phone / Address / Email)
GERVAS J. MUSA-PALE	ME	[illegible]	ITETE	06 ... 58
HAPPINESS M. ELIAS	FE	[illegible]	Hele Hospital-Treasurer	07
Owen Jackson	ME	[illegible]	ELCT-Konde Diocese	07 ... ;
P. Bisin	ME	P. Bisin	Lupato	0 ... +1393,
Webson A. Msambuye	ME	[illegible]	Lufala	07 ... 478
Rev. John Mwakalinda	Me	[illegible]	ELCT-KONDE Diocese	0 ... 99 2
NDIGWAKO M. MWASAMBONGILA	KE	[illegible]	ILWANGWA	0784
GM. K. MWAMBAMBALO	KE	[illegible]	LUGOMBO	075

Full contact details can be provided upon request.

Template No. 2: Participants' list

(Print as many copies as needed.) (Note: Please use a translated copy of this template, if English is not the most appropriate language for your meeting.)

Location:

Name of participant, job/ position in the community	Male/ Female	Signature	Organisation (if relevant)	Contact details (Phone / Address / Email)
Tulipona Kibuga	Ke	Kibuga	Kabembe	078
Tukusuma Ipasi	Ke	T. Ipasi	Kabembe	
Alesi Kibuga	Ke	A. Kibuga	Kabembe	0756
BATHSEBA A. MWANKASO	KE		KABEMBE	07
ESTOM - S. MWAKABANDILA	ME		KIBOLE	
IPYANA A MWAIPOPO (HOSPITAL TECHNICIAN) I/C	ME		ITETE LUTH HOSPITAL	0 07
AMBUNISYE L. MWANKEJELA (HOSPITAL TECHNICIAN)	ME		-11-	07 07
TUMWITIKEGE NAZARETH MWAMPJA MATRON	KE		-11-	0

Full contact details can be provided upon request.

15

Template No. 2: Participants' list

(Print as many copies as needed.) (Note: Please use a translated copy of this template, if English is not the most appropriate language for your meeting.)

Location:

Name of participant, job/ position in the community	Male/ Female	Signature	Organisation (if relevant)	Contact details (Phone / Address / Email)
GWAMAKA SOMOLA	KE		BUSOKA	
Zawadi mbeleko	KE		BUSOKA	
JOHN MWANDUNTHA	ME		BUSOKA	1876
ISMAIL MOHAMMO	ME		BUSOKA	
ALFRED E. MKANYA MWALE	ME		BUSOKA	07
MOSESTA D. MITAMBO	KE		KABEMBE	075
FRANK A. MWANJALA	ME		KABEMBE	0758
CHRISTINE DANIEL	KE		ITETE HOSP	078

Full contact details can be provided upon request.

11

Template No. 2: Participants' list

(Print as many copies as needed.) (Note: Please use a translated copy of this template, if English is not the most appropriate languag

your meeting.)

Location:

Name of participant, job/ position in the community	Male/ Female	Signature	Organisation (if relevant)	Contact details (Phone / Address / Email)
Tumpe Mwandumbya	F		Itete Health hospital	0 8
Atubonekisye Mwaipaja	m		Kata-Lupati	0 35
Cecilia Nsombo	f		Katibu - Itete Hosp	07 7
Flaston - M. Anyitike	M.		Kati-Kati Project Coordinati	450
Nabwike Deyo	m		Mganga mkuu Itete Hosp.	88

Full contact details can be provided upon request.

Annex 5

Feedback Forms [Original Feedback Forms with Signature in English and Swahili]

Name	K. K. Mwanikuka.
What is your impression of the meeting?	Very impressive towards mass development.
What do you like about the project?	the future will be electrified everywhere.
What do you not like about the project?	there is no smog in the project.
Signature	05/08/2012.

Name:	HAPPINESS M. ELIAS
What is your impression of the meeting?	- To help the hospital about Energy. - To help the people around the hospital area. - The people around they can get the job about the Project.
What do you like about the project?	The things I like about the project is new machine which are new brand.
What do you not like about the project?	No anything.
Signature	

Name	Nabwike cheyo
What is your impression of the meeting?	The meeting was very good clients were fully given a chance to express their opinions about the project
What do you like about the project?	- The project will be very beneficial for the Hospital need of electricity and the surrounding community - Employment of the Tanzanian.
What do you not like about the project?	→ NIL
Signature	

Name	Linus Kidwangire
What is your impression of the meeting?	The meeting is very good and very important for the hydropower project. rehabilitation so I have felt very good
What do you like about the project?	The project should be participative and constructive
What do you not like about the project?	
Signature	

Name	Samuel Jal Mwansen
What is your impression of the meeting?	- The meeting conducted well - Participants involved in speaking (contribution of ideas)
What do you like about the project?	- Hydropower project will be useful - Economically & - Socially
What do you not like about the project?	- Nothing
Signature	

Name	Rev. Pr Meshack Edward Njinga
What is your impression of the meeting?	- The meeting was very positive especially on the issue of Electricity for Hosp + Distribution to the villages.
What do you like about the project?	- ~~Empowerment of villagers on environment conservation~~ - enhancement of the Hydroelectric Power - Distribution of Electricity to the villagers.
What do you not like about the project?	- Environmental Problems especially villagers who do not understand about environment conservation.
Signature	

JINA — JOHN Mwangi	
Nini uelewa wako kuhusu mkutano huu?	NIMEFURAHI SANA NA KIKAO HIKI
Unataka nini kifanyike kuhusu mradi huu?	UJENZI WA UPANDO WA UMEME UENDELEE
Nini usicho taka kuhusu mradi huu?	UKATAJI WA MITI NYINGI OVYO KIKA MRADI HUU.
Sahihi yako	J. Mwangi

JINA	MAKA J. Somola
Nini uelewa wako kuhusu mkutano huu?	Nafuta hia ~~sana~~ kuelewa ya umeme katika vijiji vyetu na ~~w~~ kuwaelimi Sha wanachi huduma hii ya umeme
Unataka nini kifanyike kuhusu mradi huu?	Nataka ~~uhuzaji~~ ~~wa~~ mradi huendelee katika vijiji vyetu
Nini usicho taka kuhusu mradi huu?	Kukatiki miti ovyo katika eneo lile la bwawa wakumem e
Sahihi yako	Somola

JINA	ISMAIL - MWALIMU
Nini uelewa wako kuhusu mkutano huu?	KUBHUKUSU KWA MRADI KUKUMBUKA JAMII KAI YA VIJIJI VITATU ILIWAPA PC UMEME
Unataka nini kifanyike kuhusu mradi huu?	KUONGEZA NGUVU ZAIDI YA UMEME ILI JAMII INAYO ZUNGUKA UPATE UMEME ZAIDI BILA KUKOSA
Nini usicho taka kuhusu mradi huu?	MISICHOTAKA ULE UDANGANYIFU WA MRADI KWA JAMII
Sahihi yako	ISmmo

JINA	FRANK AKILI MWANSALA
Nini uelewa wako kuhusu mkutano huu?	Uelewa wangu kuhusu mkutano huu ni kwamba nina amini vote tuliyo jadili yatatekelezwa kwa wakati.
Unataka nini kifanyike kuhusu mradi huu?	Ninatilo taka kifanyike kuhusu mradi huu. Nataka ubora shwe sawa sawa na majadiliano yeti.
Nini usicho taka kuhusu mradi huu?	Miti katika vyanzo vya maji isi katwe kabisa.
Sahihi yako	Ajalah!!

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JINA	Mchg. Isai B.A.M. Muzalizambwe
Nini uelewa wako kuhusu mkutano huu?	Mkutano umefanikiwa vizuri sana.
Unataka nini kifanyike kuhusu mradi huu?	Wananchi waelimishwe kufuata kuwa mradi ni wao, washiriki wajibu wao katika kutekeleza yote yanayopasayo kuendeleza na kulinda mradi.
Nini usicho taka kuhusu mradi huu?	Uchafuzi na uharibifu wa mazingira na vyanzo vya maji hasa kwa kukata. Lakini watu wasilime karibu vyanzo vya maji.
Sahihi yako	Mchg. [signature]

JINA	EMI K. MWAMBAMBALE
Nini uelewa wako kuhusu mkutano huu?	~~[struck out]~~ Ninahitaji kuelimisha wananchi huduma ya umeme
Unataka nini kifanyike kuhusu mradi huu?	kuendeleza huduma ya mradi wa umeme
Nini usicho taka kuhusu mradi huu?	kutoka miti hoyo katika mazingira ya umeme
Sahihi yako	Gkamilu

JINA	Zawadi mbeleko
Nini uelewa wako kuhusu mkutano huu?	Nimefurahi sana kupata fursa hii ya kuhudhuria mkutano huu
Unataka nini kifanyike kuhusu mradi huu?	Tunataka mradi uendelee tusikatishwe kazi
Nini usicho taka kuhusu mradi huu?	Mradi usiendelee
Sahihi yako	Z. mbeleko

JINA	Tulipoya Kibuja
Nini uelewa wako kuhusu mkutano huu?	Ni kuto saidia jamii kupitia Hospitali yetu iteto na vijiji jirani
Unataka nini kifanyike kuhusu mradi huu?	Kuboresha zaidi kuweka Chanzo Chamaji
Nini usicho taka kuhusu mradi huu?	Mihalibafu wa mazingira kuweka maeneo kusiko ya mto kasiya bone
Sahihi yako	Tulipoya

JINA	ALPHRED E. MKANYAMALE
Nini uelewa wako kuhusu mkutano huu?	Baada ya uparuzi wa miradi wa umeme jamii itapata huduma kwisha
Unataka nini kifanyike kuhusu mradi huu?	Elimu ipite kwa jamii iri wasikate misitu ovyo
Nini usicho taka kuhusu mradi huu?	Hakuna usicho taka ila miradi unafaa uwe endelevu
Sahihi yako	

JINA	GERVAS S MUSAMPALE
Nini uelewa wako kuhusu mkutano huu?	Nimepata taarifa sahihi ya kwamba Kanisa la Katoliki limetumbea miradi ya Umeme
Unataka nini kifanyike kuhusu mradi huu?	Kitu muhimu ni kwamba jamii yote ihamasishwe juu ya Elimu ya kulinda mazingira kwenye vyanzo vya maji.
Nini usicho taka kuhusu mradi huu?	Hakipo kitu kinoja ambacho sikitaki
Sahihi yako	

JINA	ATUBONGEKISYE MWAIPAJA
Nini umeleva wako kuhusu mradi huu?	Kukarabati na Kuboresha - mradi wa maji - ili kupata Umeme kwa wingi (Kutosha)
Umetaka nini kifanyike kuhusu mradi huu?	Itolewe Elimu ya Kutunza na mazingira ya kutunza maji ili mradi uwe endelevu
Nini usicho taka kuhusu mradi huu?	Kulima na Kukata miti katika Vyanzo na kando ya mito - visitumike
Sahini yako	Atu. 10/8/2012.

JINA	ATUBONGEKISYE MWAIPAJA
Nini umeleva wako kuhusu mradi huu?	Kukarabati na Kuboresha - mradi wa maji - ili kupata Umeme kwa wingi (Kutosha)
Umetaka nini kifanyike kuhusu mradi huu?	Itolewe Elimu ya Kutunza na mazingira ya kutunza maji ili mradi uwe endelevu
Nini usicho taka kuhusu mradi huu?	Kulima na Kukata miti katika Vyanzo na kando ya mito - visitumike
Sahini yako	Atu. 10/8/2012.

JINA	ES. MWAKABANDIKA
Nini uelewa wako kuhusu mkutano huu?	tulio po [illegible] mkutano tumike uno ja wa [illegible] tuna [illegible] mradi [illegible]
Unataka nini kifanyike kuhusu mradi huu?	[illegible] kwamba tuhakikishe miti [illegible] chanzo cha maji. Pia miti hiyo [illegible] ni miti [illegible] maji [illegible] maji yaongezeke
Nini usicho taka kuhusu mradi huu?	[illegible] ni kwamba [illegible] watu wakikate miti [illegible] vyanzo vya maji
Sahihi yako	[signature]

JINA	Mwl. Bathseba Mwamoso
Nini uelewa wako kuhusu mkutano huu?	Uelewa wangu kuhusu mkutano huu ni taarifa njema tuliofafanuliwa kuhusu Uboreshaji na upandaji wa kitalo cha kuzalisha umeme wa maji cha Hefe. Wanamkutano tumelipokea kwa mikono miwili na kushukuru sana, naweli-malisha jambo husika.
Unataka nini kifanyike kuhusu mradi huu?	Kinachotakiwa kufanyika kuhusu mradi huu ni (i) elimu juu ya faida ya umeme. (ii) elimu juu ya upandaji miti kwenye chanzo cha mto. (iii) Elimu juu ya kutunza chanzo na mitambo.
Nini usicho taka kuhusu mradi huu?	Nisichotaka ~~kuhusu~~ kuhusu mradi huu ni uchafuzi wa mazingira kwenye chanzo cha mto Kasyabone. Pia ukataji wa miti ovyo na kulima kandokando ya mto.
Sahihi yako	[signature]

FOMU YA MATOKEO/ TATHIMINI

JINA	Tukusuma ipasi
Nini uelewa wako kuhusu mkutano huu?	Kuelewa maana ya kikao hiki kuwa mbia wezetu ili kuendeleza maradi huu
Unataka nini kifanyike kuhusu mradi huu?	Ninataka mimi efanyike kuwa tuwe na umoja kwapamoja ili kuwasaidie wafadhili wetu
Nini usicho taka kuhusu mradi huu?	Ninataka tuwe pamoja na kuenge za kupanda miti kule kuenge maji yote
Sahihi yako	T. ipasi

JINA	Alesi Kebengo
Nini uelewa wako kuhusu mkutano huu?	Mkutano huu unapanua mawazo ya wa baa hawe ili kungana pamoja na wananchi.
Unataka nini kifanyike kuhusu mradi huu?	mimi mwenyewe nataka kuboresha mradi huu tuwashukuru wafadhili,
Nini usicho taka kuhusu mradi huu?	Hatutaki kulima kwenye chanzo cha maji na kujenga choo ya kupita kwenda kusaidia kwenye mafuriko
Sahihi yako	A. Kebingo

JINA	NDIGWAKO · M · MWASANDUNGILA ·
Nini uelewa wako kuhusu mkutano huu?	-Kuwa mimi ni Mdau wa Mradi, -Kuwa mimi napaswa kuwa Mhamasishaji Kwa Jamii Juu ya Manufaa ya Mradi na hudumu Kwa Jamii
Unetaka nini kifanyike kuhusu mradi huu?	-Ulinzi Juu ya Mazingira na Ekumzaji -Elimu Kwa Jamii Juu ya utunzaji Mazingira na Mradi Kwaujumla -Kuongeza elimu Kwa Wahumishi wa Mradi ~~Kuongeza Wahumishi~~ Kuelimisha Kiengine.
Nini usicho taka kuhusu mradi huu?	—
Sahihi yako	Ndengilo.

JINA	Mkobozi A Mwasandungila
Nini uelewa wako kuhusu mkutano huu?	Mimi nimefurahishwa sana tena sana kwa kuteuliwa mradi endelevu
Unataka nini kifanyike kuhusu mradi huu?	Chakufanya ni kuhamasisha Kusu wanao lima kwenye Vyanzo vya Maji
Nini usicho taka kuhusu mradi huu?	Kwenye mradi huu hakuna kitu kibaya bado ni furaha tu.
Sahihi yako	Mwasandungila

JINA	U. A. M BAMBA
Nini uelewa wako kuhusu mkutano huu?	NIMEFURAHI KWA USHIRIKISHWA SI KWA JAMII IMAYO ZUGUKA KUTUNAMRADI HUSIKA
Unataka nini kifanyike kuhusu mradi huu?	MRADI UWEMBELE, UNAUNA MANUFA KWA JAM.
Nini usicho taka kuhusu mradi huu?	—
Sahihi yako	

JINA	P Bibiana
Nini uelewa wako kuhusu mkutano huu?	Tuelewa mpo ni kuhusu mazingira
Unataka nini kifanyike kuhusu mradi huu?	Wahi waanzishe kwenye eneo mji
Nini usicho taka kuhusu mradi huu?	Kuuko kuuko hayoo mazingira
Sahihi yako	P Bibiana

Name	BISHOP DR. ISRAEL-PETER MWAKYOLILE
What is your impression of the meeting?	The meeting shows a positive response of the stakeholders. Govt. leaders are ready to support this project by encouraging the communities to take care of the environment where the rivers begins.
What do you like about the project?	It really supports Energy supply to the Hospital that there will be no Cuts as done by TANESCO
What do you not like about the project?	I will not love the project if the environmental aspect will be neglected.
Signature	+ [signature]

Name	CHRISTOPHER DANIEL
What is your impression of the meeting?	All participants showed high appreciation, acceptance and readiness to participate in the construction of the project. It is a good START.
What do you like about the project?	This project will be beneficial to the hospital & the surrounding villages. It will be the source of expanding development - procedures/activities
What do you not like about the project?	Nothing.
Signature	[signature]

Name	T. Nazareth
What is your impression of the meeting?	my Impression is that the hospital and the villagers will Benefit about the project. talk to the meeting. The meeting builds the good foundation on the start.
What do you like about the project?	what I like is that the near by villagers will be able to use the electricity produced by the project.
What do you not like about the project?	Nothing.
Signature	Nazareth.

Name	Tumpe . A . Mwandumba
What is your impression of the meeting?	The meeting is good. full participation.
What do you like about the project?	I like and I'm happy to get this new project.
What do you not like about the project?	Nothing to Suggest.
Signature	T. Mwandumba.

Annex 6

Translated Copies Feedback Forms Originally Written in Swahili

Name	Tulipona Kabuja
What is your impression of the meeting?	To help our community through hydropower for hospital and the surrounding community.
What do you like about the project?	To protect and improve more water source
What do you not like about the project?	Destruction of environment to respective areas of Kasyabone river
Signature	*[see original]*

Name	Frank Akili Mwanjala
What is your impression of the meeting?	My understanding on this meeting is that I believe all discussions that are going to be discussed here will be implemented in time as promised.
What do you like about the project?	I like this project to be implemented as it has discussed in the Stakeholder consultation meeting.
What do you not like about the project?	Deforestation at river sources should be critically eliminated
Signature	*[see original]*

Name	Modesta D Mihambo
What is your impression of the meeting?	Extension and improvement of the project
What do you like about the project?	The surrounding project areas should be conserved in order to bring efficiency to the respective community.
What do you not like about the project?	
Signature	*[see original]*

Name	REV. Isei B.M Mwakisambwe
What is your impression of the meeting?	The meeting has fully successful
What do you like about the project?	Education to the community members through this project- since the project is theirs. Community members should adhere to their responsibilities of conserving and protecting their environment.
What do you not like about the project?	Destruction and contamination of water source and environment should be eliminated so people should fight to conserve environment.
Signature	*[see original]*

Name	Mwambambale EM.K.
What is your impression of the meeting?	Educating respective community members concerning hydropower.
What do you like about the project?	To improve hydropower services/project
What do you not like about the project?	Deforestation on the hydropower-river sources
Signature	*[see original]*

Name	Zawadi Mbeleko
What is your impression of the meeting?	I'm very happy to get hydropower
What do you like about the project?	To extend the hydro power to Butola village.
What do you not like about the project?	Deforestation should be eliminated
Signature	*[see original]*

Name	Gwamaka J. Somola
What is your impression of the meeting?	To educate the surrounding community members on this services of hydropower
What do you like about the project?	Extension of this project to all our villages
What do you not like about the project?	None
Signature	*[see original]*

Name	Ismail Mwaisumo
What is your impression of the meeting?	consider to distribute power in three villages
What do you like about the project?	To increase more the power of hydro in order to distribute the power to all intended villages.
What do you not like about the project?	Cheating on the distribution of power to the intended villages
Signature	*[see original]*

Name	John Mwandunga
What is your impression of the meeting?	I'm very happy with this meeting
What do you like about the project?	Construction and expansion of the hydro power station should continue
What do you not like about the project?	Deforestation on this project

Signature	*[see original]*

Name	Alfred E. Mwakanyamale
What is your impression of the meeting?	After extension of this hydropower, community members will get services nearly.
What do you like about the project?	Education on environment conservation should be provided to the community members so as to be aloof from environment problems.
What do you not like about the project?	Nothing that I don't want about the project, otherwise, the project should be sustainable.
Signature	*[see original]*

Name	Gervas S.Mwampale
What is your impression of the meeting?	I've got the information that the Evangelical Lutheran Church in Tanzania has bright hydropower to Itete community
What do you like about the project?	The important thing is that, the community members should be educated on the impacts of deforestation on the river sources.
What do you not like about the project?	Nothing that I do not like
Signature	*[see original]*

Name	Atubonekisye Mwaipaja
What is your impression of the meeting?	Renovation and improvement of water project in order to get enough power.
What do you like about the project?	To educate community members to conserve water for the sustainability of the project.
What do you not like about the project?	Agricultural activities and deforestation on the river sources
Signature	*[see original]*

Name	Eston S.Mwakabandila
What is your impression of the meeting?	To create a unity that will be responsible to develop our hydropower project for sustainability.
What do you like about the project?	To enough trees should be planted on the river sources also that trees should be friend to environment
What do you not like about the project?	Deforestation on river source should be strictly prohibited
Signature	*[see original]*

Name	Bathseba Mwamaso
What is your impression of the meeting?	My understanding on this meeting is about good news that we have sponsored the extension and improvement of Itete

	hydropower. The participant members have strong accepted the project and will educate their fellow community to conserve the environment.
What do you like about the project?	Important of environmental conservation and management and planting trees at the river sources
What do you not like about the project?	Deforestation, and water pollution
Signature	*[see original]*

Name	Tukusuma Ipasi
What is your impression of the meeting?	Dissemination of the information to our fellow community members on the techniques to improve the project.
What do you like about the project?	More education on unity and relationship among the community through implementation of hydropower extension project.
What do you not like about the project?	Deforestation
Signature	*[see original]*

Name	Alesi Kibinga
What is your impression of the meeting?	people need more unity and solidarity to implement the project
What do you like about the project?	Improvement of the old hydro electrical power project
What do you not like about the project?	Agricultural activities along the river sources
Signature	*[see original]*

Name	Ndigwako M.Mwasandungila
What is your impression of the meeting?	I'm an important stakeholder of the project and I'm responsible to sensitize the community on the importance of the project and environment management and conservation.
What do you like about the project?	Environmental protection and management Education to the community on the environmental management and safeness of the project. More training for 2 hydropower technicians and addition of another 2 technicians.
What do you not like about the project?	None
Signature	*[see original]*

Name	Webson A.Mwambuga
What is your impression of the meeting?	I feel very happy to reserve the hydro electricity power project in our area.

What do you like about the project?	More education to those people who are carrying out agricultural activities along and to the river sources.
What do you not like about the project?	Nothing bad in this project
Signature	*[see original]*

Name	Mbamba,U.A
What is your impression of the meeting?	I feel happy community members to be involved in the respective project.
What do you like about the project?	Sustainable project and profitable to the community
What do you not like about the project?	None
Signature	*[see original]*

Name	Bibane,P
What is your impression of the meeting?	Environmental projection is a key factor in the project management.
What do you like about the project?	People should not carry out agricultural activities at the sources of water/rivers.
What do you not like about the project?	Destruction of the environment
Signature	*[see original]*