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Final Report of
Kifuruga Water Supply Project



Pre-School Kifuruga, training in Handwashing for Corona prevention

Final Report

Narrative and Financial

Execution Period:

January – December 2021

Final Report is made by Eng. Hande D. Mwanjela from Chamavita.

10th of March 2022

SUMMARY

This report outlines the completion of the Kifuruga Water Supply Project which has been constructed within the villages of Kinko (Madala, Kwawapare, Kamshunga "A" and Mkaton), and Mnadani (Kifuruga and Kweilindi). Kinko is part of the Lukozi ward while Mnadani is in Malindi ward, all in Lushoto District.

The project was built by Chamavita in collaboration with the people of the two villages for a period of 12 months; from January to December 2021. The direct beneficiaries of this project are 300 households with a total population of 1400 people and 290 livestock.

The report describes in detail how the construction was carried out and how the people of the two villages were empowered during the implementation.

Each household in their respective location contributed to the work by digging trenches of total 8960m and refilling it after the pipes were connected, collecting stones for 14 domestic points (washing tables and standpipes, transporting sand to domestic points. They did this for 2 days a week (Wednesdays and Saturdays); this gives them the legitimacy that the project is theirs. By December the project was fully constructed consisting of:

- Ø One 45m³ tank - located at a high point overlooking Kifuruga centre;
- Ø One 15m³ tank - located at high point overlooking Mkaton centre on the junction of the Kinko-Kifuruga road;
- Ø 8,960-meter-long pipeline network (in Kinko village 4360 meters and in Kifuruga 4600 metres);
- Ø A total of 13 domestic points (each with a stand pipe and a washing table);
- Ø 1 public standpipes (i.e. no washing table) at a Pre-school and 1 water tap at Mosque ;
- Ø 4 valves in the valleys (for cleaning mud inside the pipe) - 1 at Kwawapare and 2 in Kifuruga and 1 at Mkaton;
- Ø 14 water meters at the DPs.

On project completion, the project activities were 100% implemented and everything was set in place in order to ensure the long-term sustainability of the project.

Local empowerment is an integral part of the project construction, through meetings, on-job training, etc.

INCOME

average exchange rate is 2,693.40 TZS for 1€

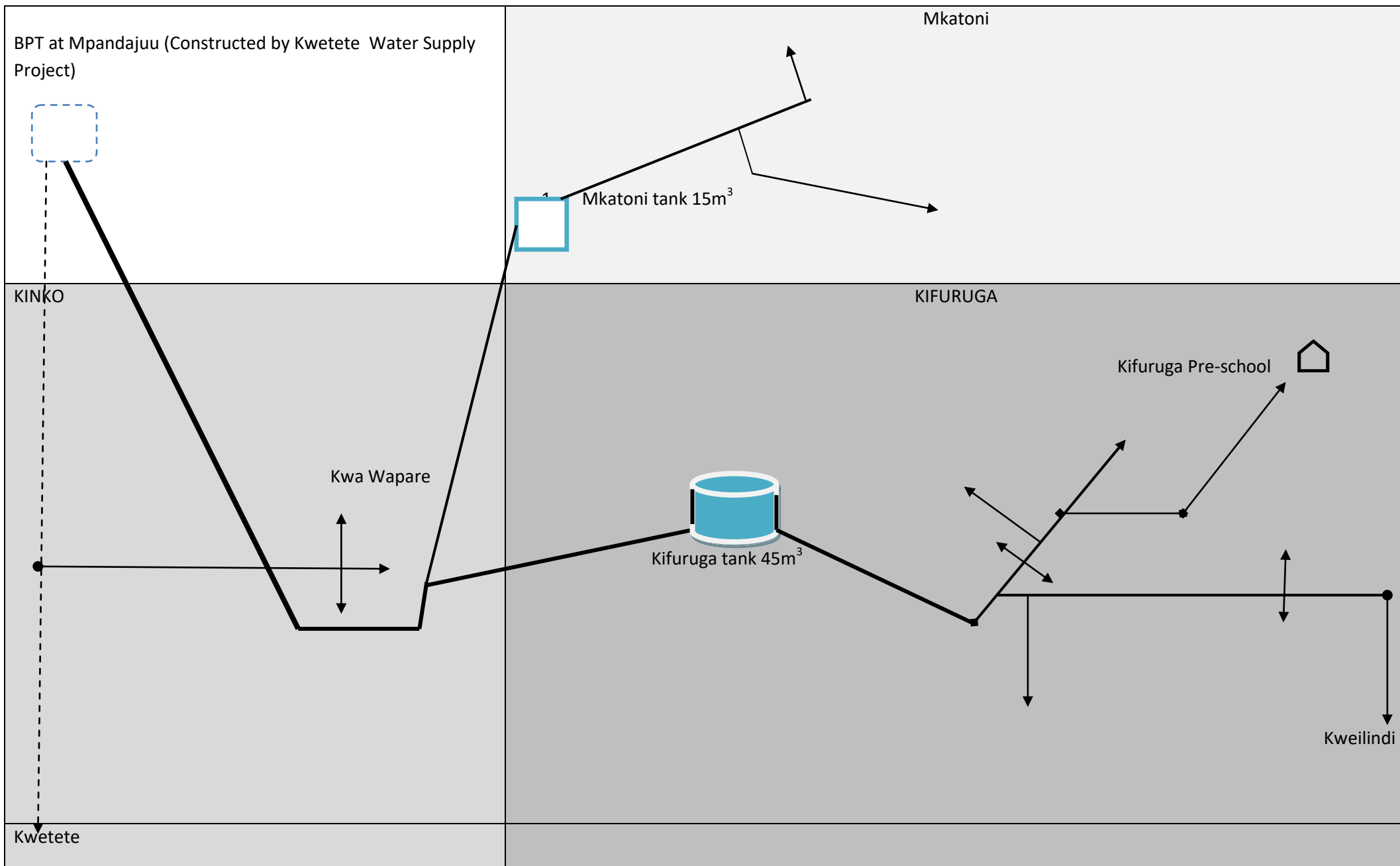
DATE	DONOR	€	1€=TZS	TZS
10.02.2021	a) WILDE GANZEN 1 ST TRANSFER	24,097	2,693.40	64,902,859.80
08.06.2021	b) WILDE GANZEN 2 ND TRANSFER	13,035	2,693.40	35,108,469.00
31.06.2021	c) SPOT-TANZANIA 1 ST TRANSFER (ADMIN)	3,500	2,693.40	9,426,900.00
26.09.2021	d) WILDE GANZEN (ADMIN)	4,381	2,693.40	11,799,785.40
31.11.2021	e) WILDE GANZEN (MKATONI TANK)	4,645	2,693.40	12,510,843.00
	TOTAL	49,658	2,693.40	133,748,857.20

The income (transfers): a), b), d) and e) are done in co-operation with Wilde Ganzen (WG). In reality that means that each transfer is 1/3 from the WG and 2/3 from SPOT. Transfer c) is 100% from SPOT. So in total SPOT contributed €30,767 + 3,500 = €34,267.— Euro's. **The donation of your Foundation is a part of this amount 34,267 Euro's**

EXPENDITURES

NR	ITEM	COST (TZS)	Euro
1	Construction of 45m ³ tank at Kifuruga	12,647,400.00	4,696
2	Construction of 15m ³ tank at Mkaton	4,973,500.00	1,847
3	Construction of 13 water points (DP&WT) and 1 DP at Pre-school	5,102,500.00	1,849
4	Construction of 35 valves and their chambers	4,460,750.00	1,656
5	Construction of pipeline network	54,468,500.00	20,223
6	Construction of rainwater harvesting system at Pre-school	1,624,500.00	378
7	Workers camp	1,018,750.00	603
8	Administration: salaries, transport, overhead cost, capacity building (this is the total of the chapters vii up to xv of the detailed financial report)	51,151,925.65	18,992
	TOTAL	135,447,825.65	50,284

Lay out of the Kifuruga gravity water supply



Description of all executed works

Nr.	Work done for each component	Initial design	Actual	Observations
1	<p>Pipeline (PL): The pipeline has a total length of 10.5km long, and was installed with Φ90mm PVC 3.72km, Φ63mm HDPE 3.64km, Φ32mm HDPE 1.54m, and Φ25mm HDPE 1.6km pipes to water stations.</p> <p>The Φ90mm pipeline starts from the BPT (constructed by Kwetete project) at Mpandajuu all the way to Kifuruga via 45m³ and Mkatonni via 15m³ storage tanks. The 3 water stations, Madala, Kwawapare and Kamshunga "A" which are the hamlets of Kinko village, that were supposed to get their water from this Kifuruga pipeline, now get their water from the Kwetete water pipeline by a Φ32mm pipe. This is done to transport all the required water from the BPT to the Kifuruga and Mkatonni tanks before distributing them to these areas. The line to Mkatonni is a Φ63mm pipeline.</p>	8.96km	10.50km	100% completed
2	<p>Storage tanks: The diagram of the Kifuruga water project had only one 45m³ tank, later on it was revealed that Mkatonni line also needed its own tank despite having only two water stations but with a large number of users. With the support of Wilde Ganzen a 15m³ tank was added for this purpose. All tanks are equipped with a ventilation pipe, a pipe for overflow and washout for cleaning, and an inspection covers. They also have a control box where a gate valve was installed, with the inlet and outlet chambers protected by a concrete lid to facilitate proper security for the valve during operation and maintenance. Also the tanks each have a float valve.</p>	1	2	100% completed
3	<p>Distribution networks: The distribution network was of 1.6km long and was constructed with Φ 75mm HDPE pipes to 14 domestic points.</p>	1.6km	3.14km	100% completed
4	<p>Water points (DPs + WTs): 14 concrete water points (14DP +13WTs) were constructed in the network. 1 concrete DP has been constructed at a pre-primary school. There is 1 stand pipe at a Mosque (kulatain +for washing according the Islam rules)</p>	14	14	100% completed
5	<p>Water meters: 15 water meters have been installed, one at each water stations. Meters are supposedly used by the community to control water consumption.</p>	14	15	100% completed
6	<p>Control valves: Gate valves were constructed at the following points: at the inlets and outlets of the tanks and at branch lines. A total of 20 valves were constructed.</p>	14	20	100% completed
7	<p>Washouts: Three valves for cleaning the pipeline were constructed at the lowest points; one at Madala area and two at Kifuruga.</p>	2	3	100% completed



The 45m³ storage tank for 9DPs at Kifuruga



The 15m³ storage tank for Mkatoni(2 DPs)



Two baby calabashes at Kifuruga Pre-school for handwashing as a Corona measure (preventive).



A water point (DP) at Pre-School (gets water from pipe network or from calabash tank (rain water))



Kulatain at a mosque

Women fetching water at one of the DPs

LOCAL EMPOWERMENT

Strengthening of Water Committees' capacities

The Kinko water board (COWSO, now CBWSO) with 6 village fundis was established in 2017 for O&M for the Kinko A, Kinko B, Kinko C&D, Kwetete, Kifuruga and Makanya projects and it has been being trained on Operation and Maintenance of completed water systems. The CBWSO members are key actors of the project as they are the ones responsible for the water system once the project is completed.

This **CBWSO** of 8 members, according to the new Ministry of Water (MoW)' policy, it is only an interim one pending election according to CBWSO's constitution, which has been drafted. However, during the project construction, the interim CBWSO has been active in the project activities, collecting water fees from DPs that are completed and the users are getting water from it. Now, the project construction is completed the CBWSO has taken full responsible for O & M. It pays for any damaged part of the system; it is paying fundis (though not much) The Board has an office in the Village Office Building

The 2 fundis from Kifuruga received three types of training:

1. On job-training: Kiyango, the head pipe technician, has conducted training to these fundis:
 - a. Types of pipes (PVC, HDPE, Polyethylene, Galvanised steel, IPS, etc)
 - b. In each pipe type, common fittings, e.g. sockets, couplings, elbows, male sockets, unions, T- Coupling, T- Connectors, Reducers, gate valves, plugs, etc
 - c. Strengths of PVS, HDPE and Polyethylene pipes:
 - i. By color: red, blue, green;
 - ii. By PN: PN6, PN10, PN12, PN16
 - iii. What color corresponds to what PN
 - d. Different valves: Air-valves(AV), Washouts (WO), gate valves, etc
 - e. How to read and record a water meter reading
2. Functions of different structures
 - a. Reservoir (dam)
 - b. Storage tank
 - c. Break pressure tank
 - d. Functions of AV, WO
3. Maintenance of the system:
 - a. Employed in all the completed and they will also be employed in the future ones (Makanya) to enhance their technical know-how.
 - b. Preventive maintenance: check functionality of the system, fix minor repairs
 - c. Reparation maintenance: what to do when there is a breakdown somewhere, how to report the repair work

KIFURUGA WATER SUPPLY PROJECT
INCOME AND EXPENDITURES
JAN 2021 TO DEC 2021.

PART ONE: INCOME

	TZS	EURO	EXCHANGE RATE
External Income			
a) 10.2.2021 From Wilde Ganzen	64.902.859,80	24.097	
b) 8.5.2021 From Wilde Ganzen	35.108.469,00	13.035	
c) 31.6.2021 Addition from SPOTT(Administration cost)	9.426.900,00	3.500	
d) 28.9.2021 From Wilde Ganzen (Mkatoni tank)	12.510.843,00	4.645	
e) 28.9.2021 From Wilde Ganzen (Administration cost)	11.799.785,40	4.381	
Total External Income (avg)	133.748.857,20	49.658	

Average exchange rate **2.693,40**

Transfer a,b, d and e are the transfers in Co-operation Wild Geese and SPOT. 2/3 of these transfers comes from SPOT. Transfer c is 100% SPOT. So in total 30,767 + 3,500 is from SPOT, and your donation is in that total

Local contribution

- i) From Chamavita - from Lorry business(lorry grounded)
- ii) Village contribution in kind (voluntary work)

Total Local Contribution (all in kind)	7.323.080,00	2.719	
Total income in cash: External + Local	133.748.857,20	49.658	
Total income in cash + kind	141.071.937,20	52.377	

PART TWO: EXPENSES

i) Construction of 45 m3 storage tank

a) material: sand, cement, aggregate, hardcore, reinforcement, concrete blocks, binding wire, paints, timber, poles, nails etc.

8.764.900,00

b) labour

3.000.500,00

c)Transport: fuel

882.000,00

Total 45 m3 storage tank

12.647.400,00 4.696

ii) Construction of 15 m3 Tank

a) material: sand, cement, aggregate, hardcore, reinforcement, etc.

3.420.000,00

b) labour

1.285.500,00

c)Transport: fuel

268.000,00

Total construction 15m3 Tank

4.973.500,00 1.847

iii) Construction of 14 water points DPs(public + institution)

a) material: sand cement aggregate, hardcore, etc.

1.731.500,00

b) labour

2.244.000,00

c)Transport: fuel

1.127.000,00

Total construction water points

5.102.500,00 1.894

iv) 35 Valves and Valve chambers

a) Materials	2.116.000,00	
b) Labour	2.054.750,00	
c)Transport: fuel	<u>290.000,00</u>	
Total construction chambers	4.460.750,00	1.656

v) Pipe work

a) Pipes and fittings	48.894.000,00	
b) labour	3.824.500,00	
c)Transport: fuel	<u>1.750.000,00</u>	
Total Pipe works	54.468.500,00	20.223

vi) Workres Camps.

Cost: Food and sports	<u>1.018.750,00</u>	
Total workers camp	1.018.750,00	378

vii) Construction of Water system at Kifuruga Pre-school

a) Costruction of 5m3 calabash tank	680.800,00	
b) Construction of 2 baby calabash for hand washing	203.700,00	
c) Construction of gutters	403.000,00	
d) Construction of pipeline to school toilets	337.000,00	
Total Water System at Kifuruga Pre-school	1.624.500,00	603

vii) Administration: monthly meter reading, transport allowances for supervisors, travel, stationery for site works, motorcycles services for supervisors, supervisor salary, etc	4.363.599,00	1.620
viii) Chamavita staff costs : salaries, other		
a) Salaries	29.268.150,00	
b) NSSF Contribution	2.452.000,00	
c) other	<u>417.000,00</u>	
Total Chamavita Staff cost	32.137.150,00	11.932
ix) Transport Costs for pick up, Truck & motorcycle: service, spare parts, repairs, etc	4.413.000,00	1.638
x) Office and general expenses. electricity, ngo fees, society contributions, n.k	3.158.600,00	1.173
xi) office stationaries, office rent, management meeting expenses, p/cup driver allowances, oils and diesels for official works, office upkeep	2.624.700,00	974
xii) Tanzania Revenue Authority (TRA) Quaterly payments, PAYE and SDL payments and penalties	2.985.950,00	1.109
xiv) Travelling and accomodations, staff allowances	360.000,00	134
xv) Bank charges (both accounts)	1.108.926,65	412

<u>Total Expenses</u>	135.447.825,65	50.289
<u>Total Income</u>	<u>133.748.857,20</u>	<u>49.658</u>
Excess of Expenses	- 1.698.968,45	-631

The small excess of expenses is covered by the reserves.