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**FIRST REPORT ON KWESIMU SCHOOL WATER HARVESTING
PROJECT**

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April 2013

1.0 INTRODUCTION

Kwesimu Primary School water harvesting project is the 4th school benefitting from the rainwater supply project sponsored both by Diana Women Empowerment group of Lushoto and Arendal Soroptmist Club of Norway and other friendly schools from Norway also individual and institutions. The other schools that benefited so far under the same arrangement include Kizara Primary school (2012)), Ubiri primary school (2011) and Kitopeni primary school (2010)

2.0 TECHNICAL INFORMATION

Kwesimu Primary School water harvesting project was designed to cater for 309 pupils, 20 staff and 4 dependants as well as 1 guard. The system is composed of corrugated iron roof catching area of 224 m² connected to the series of rainwater gutters, which empty water into a first flush diversion unit and finally to the semi underground Ferro-cement tank with cylindrical upper part 15.54 m³ and ground spherical part of 1.07 m³ giving effective volume of 16.61 m³. The design volume is almost 10% of the desired volume of 153.2 m³. The designed volume will assure pupils and staff to get not less than 0.5 liter of whole some water per day and the rest of the requirement will be met from a nearby spring. Provision for tap water from Lushoto township water supply scheme is given when time is due. Ball valve to be connected to the supply main has been provided

See picture 45 (tank) attached.

The tank was recommended basing on the site location (sloppy area) hence semi underground tank suitable for the location. The tanks constructed out of sand cement blocks reinforced by a single sheet of chicken and strips of 6mm iron bars has proved strength and relatively cheap building material to cater for such situations.. The design has been done by Environmental Engineer John Nshunju and approved Eng. John Malange with inputs from the Project overseer Mr. Kamugisha. The structure is the 3rd after those of Shukilai primary 39 m³, and Ubiri primary school of 59 m³

See picture 34 (System arrangement). Attached

As usual the first flush diversion unit form an essential part of the system to ensure water quality throughout by letting dirty and foul first flush discarded before clean water ascend to the tanks inlets

3.0 FINANCIAL INFORMATION

The project was designed and estimated to cost 8,063,300.00. The money would be disbursed as per the attached schedule and real expenditure after completion of the project is shown below

What is new to this budget is that the schools were willing to contribute part of the building materials (stones and aggregate). By their contribution of 252,500.00 the first instalment receive was 7,113,300.00

3.1 Payment Schedule:

No	Description	1st instalment	2nd Instalment	Total
1	Contractor			
	Consultancy fees	750 000.00	750 000.00	1 500 000.00
	Labour charges	1 320 000.00	0	1 320 000.00
	Transport	210 000.00	0	210 000.00
	Communication & stationery	50 000.00	0	50 000.00
	Excavation	149 500.00	0	149 500.00
	Subtotal	2 479 500.00	750 000.00	3 229 500.00
	Material supplier			
2	construction materials	2 310 000.00	0	2 310 000.00
	pipes and fittings	1 150 000.00	0	1 150 000.00
3	transport of build materials	80 000.00	0	80 000.00
4	Form work materials & roofing materials	746,300.00	0.00	746 300.00
4	Subtotal	4 286 300.00	0.00	4 286 300.00
	Diana administration			
4	Supervision of the works	200 000.00	200 000.00	400 000.00
4.1	Transport of members to site	200 000.00	0.00	200 000.00
4.2	Sign board and handing over	150 000.00	0	150 000.00
4.3	stationery & communication	50 000.00	0	50 000.00
	subtotal	600 000.00	200 000.00	800 000.00
	Gland total	7 365 800.00	950 000.00	8 315 800.00
	Less : school contribution			
	Half cost Hard core material (stones) + transport	93000	0	93 000.00
	Half cost Aggregate (stone + transport)	52500	0	52 500.00
	water	107000	0	107 000.00
	Total school contribution	252500	0	252 500.00
	Request from donor	7 113 300.00	950 000.00	8 063 300.00

The 1st instalment came in 08/12/2012 and was expected to take 8 weeks or 2 month. It was not till end of March 2013 that the work has been completed. Almost one and half months over the expected time e deeply regret that! The reason for time extension is not much related to the technical issue rather laxity on the part of the contractor workers who were not much trust worthy for coming to work frequently after they received a large amount of their contractual sum. This was learnt hence piecework will be the new mode of work terms. The change of gutter system to new class also consumed some time though not significant to

justify the lost time to work contract. Waiting for community to mobilize stones and aggregate also consumed some time.

Picture no 225..... Attached

3.1 Income and expenditure during implementation

Date	Description	Income	expenditure	Balance
08/12/2012	Received money from Mr Kamugisha	7,113,300.00	7,113,300.00
12/12/2012	A: Payment to Contractors		2,479,500.00	4,633,800.00
12/12/2012	B:Payment to Supplier (Mvungi)			
	Building materials		2,057,500.00	2,576,300.00
	Pipes and fittings		1,150,000.00	1,426,300.00
	Transportof build materials		80,000.00	1,346,300.00
	Formwark materials &roofing		746300.00	600,000.00
	Subtotal		4,033,800.00	-
	C: Diana women administration cost			
20/12/2012	Supervision of the works		200,000.00	400,000.00
20/12/2012	communication		50,000.00	350,000.00
28/03/2013	painting and sign writing		150,000	200,000.00
	Transport of members for supervision		200,000.00	-
	Subtotal		600,000.00	-
	TOTAL	7,113,300.00	7,113,300.00	0.00

4: Conclusion

The job in our view has been done as designed with minor alterations when some adjustment was made to suit the situation on the ground. For instance the two classrooms were used for collection roof area after former class roof levels failed to deliver expected results. There are an increase number of institutions asking for the service after seeing the commissioned structure of similar nature. In fact the impact is made both at individual and institutional level including the government which is now implementing Rural Water and Sanitation Programme in the district. The contractor has been approached to give expertise on ferro cement and water jar in two villages of Irente and Bumbuli.

Lastly we thank SANDNES SKOLE, TROMØYA, ARENDAL SOROPTIMIST CLUB, and NORWAY for raising money that has been spent to support construction of the schools' project. We assure them that their money has been used properly to give the real value of money for the built structure. This has been achieved because of good cooperation between Diana group, the school authority and the contractor Env.Engineer. John Nshunju and Kamugisha who tirelessly urged us to finish the job in time.

See picture 245: (Close supervision by DIANA members and Kamugisha)