

**FINAL REPORT ON KIZARA PRIMARY SCHOOL RAINWATER  
HARVESTING PROJECT**

**DIANA WOMEN EMPOWERMENT GROUP**

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## **Contents**

1.0 INTRODUCTION .....	3
2.0 TECHNICAL INFORMATION .....	3
3.1 Payment Schedule:.....	4
3.1 Income and expenditure during implementation .....	5
4: Conclusion .....	6

## **1.0 INTRODUCTION**

Kizara primary School water harvesting project is the 3<sup>th</sup> school benefitting from the rainwater supply project sponsored both by Diana Women Empowerment group of Lushoto and Arendal Solopmist Club of Norway. The other schools that benefited so far under the same arrangement include Kitopeni primary school (2010), Ubiri primary school (2011) and Kizara primary school 2012.

## **2.0 TECHNICAL INFORMATION**

Kizara primary School water harvesting project was designed to cater for 759 pupils and 23 staff. The system is composed of corrugated iron roof catching area of 22 x 8 m<sup>2</sup> connected to the series of rainwater gutters, which empty water into a first flush diversion unit and finally to the first cement jar tank. The series of 5 tanks tanks of 3000 liters each are connected in such a way outflow of the first one become inlet of the following tank. There are 5 tanks linked to a domestic point with four taps. In total the cement jar are able to store 15 000 liters of rain water. Hence the total volume of water will be 12.5% of the available collection capacity.

See picture 1 ( tanks in series) attached.

The tanks were recommended basing on the site location (rocky area) hence ground tank suitable for the location. The tanks are cheap and ease to construct as was proved by many people who happened to look at the construction stages. Many have vowed to construct one for them. The design and approvals have been done by John Nshunju and approved Eng. John Malange with inputs from the Project overseer Mr. Kamugisha.

The structure has a unique feature that is new compared to the previous projects. The innovation lies on the diversion unit structure constructed by 3'' nipple and socket that are female and male allowing a discharge arm rotate along horizontal axis thus if pulled aside let foul first rain collection be discarded off the tank inlet.

See picture 2 (first flush diversion unit). attached

## **3.0 FINANCIAL INFORMATION**

The project was designed and estimated to cost **7 906 800.00**. The money would be disbursed as per the attached schedule and real expenditure after completion of the project is shown below

### 3.1 Payment Schedule:

No	Description	1st Instalment	2nd Instalment	Total
A	contractor			
1	Form work equipment	121 000.00	-	121 000.00
2	Levelling & excavation	62 500.00	-	62 500.00
3	Transport	245 000.00	-	245 000.00
4	Labour	1 450 000.00	-	1 450 000.00
5	consultancy	825 000.00	825 000.00	1 650 000.00
6	communication scan and printing	50 000.00	-	50 000.00
	<b>Subtotal</b>	<b>2 753 500.00</b>	<b>825 000.00</b>	<b>3 578 500.00</b>
B	Hardware and equipment supplier			
1	Building materials	1 610 300.00	-	1 610 300.00
2	Hardware	1 498 000.00	-	1 498 000.00
3	Transport of building materials	80 000.00	-	80 000.00
	<b>Subtotal</b>	<b>3 188 300.00</b>	<b>-</b>	<b>3 188 300.00</b>
C	Diana administration cost			
1	communication	50 000.00	0	50 000.00
2	Follow up work & reporting	225 000.00	225 000.00	450 000.00
	Water for construction	90 000.00	-	90 000.00
3	painting and sign writing	300 000.00	-	300 000.00
4	Transport of members for supervision	250 000.00	-	250 000.00
	<b>Subtotal</b>	<b>915 000.00</b>	<b>225 000.00</b>	<b>1 140 000.00</b>
	<b>Gland total</b>	<b>6 856 800.00</b>	<b>1 050 000.00</b>	<b>7 906 800.00</b>

The 1<sup>st</sup> instalment came in 4.5.2012 and was expected to take 5 weeks or one month. It was not till first week of August. The reason for time extension was because of time spent for hardening of the constructed tank before saw dust could be shifted. If we had enough saw dust then two tanks would be done simultaneously hence meet our schedule time. See picture 3 (form work building)

### 3.1 Income and expenditure during implementation

Date	Description	Income	expenditure	Balance
4 <sup>th</sup> may 2012	Received money from Mr Kamugisha	6,856,800.00	.....	6,856,800=
17 <sup>th</sup> may 2012	<b>A: Payment to Contractors</b>	2,753,500.00	2,753,500.00	.....
	<b>B:Hardware and equipment supplier</b>			
17 <sup>th</sup> may 2012	Building materials	1,610,300.00	1,610,300.00	.....
	Hardware	1,498,000.00	1,498,000.00	.....
17 <sup>th</sup> may 2012	Transport of building	80,000.00	80,000.00	.....
	<b>Subtotal</b>	<b>3,188,300.00</b>	<b>3,188,300.00</b>	....
	<b>C: Dianawomen administration cost</b>			
20 <sup>th</sup> june 2012	Follow up work & reporting	225,000.00	225,000.00	....
17 <sup>th</sup> may 2012	communication	50,000.00	50,000.00	....
17 <sup>th</sup> may 2012	Water for construction	90,000.00	90,000.00	....
14 <sup>th</sup> august 2012	painting and sign writing	300,000,00	300,000.00	....
20 <sup>th</sup> june 2012	Transport of members for surpervision	250,000.00	250,000.00	.....
	<b>Subtotal</b>	<b>915,000.00</b>	<b>915,000.00</b>	.....
	<b>Grand Total</b>	<b>6,856,800.00</b>	<b>6,856,800.00</b>	....

#### **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. The structures are admired by the beneficiaries (see picture 4) and other stakeholders, villagers and passerby and some have shown interest to own one. We hope there will be replication of this technology as preconceived idea when we opted to this design.

Lastly we thank Soroptimist International of Europe, Action Fund, and Arendal Soroptimist Club 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 Eng. John Nshunju

See picture 5: ( Close supervision by Diana members and the contractor)