

**Environmental Education & Conservation Programme (EECP)
Kisarawe District, Coastal Region – Tanzania**

Project Report (Final)



Project Proponents:

The Rufford Small Grant Foundation (Donor)



&

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July 2009

Acknowledgement

I would like to express my sincere thanks to JEMA Secretariat based at the University of Dar es salaam for being part and parcel in hosting and implementing this project to the extent of realizing its objectives for sustainable environment management. Their voluntary spirit have proven that being a higher learning student is not a barrier in serving the community but rather a bridge between the community and development in the light of University knowledge and just positive attitudes

I hereby thank my referees: Ms. Linda Sanders (Kent University – UK), Mr. Noah Pauline Makula (Research Fellow - UDSM) and Mr. Samwel Kessy (Ministry of Work and Youth Development – Tanzania) for supporting me and my proposal to the extent of its execution.

I\m also very glad to take this opportunity to recognize the contribution and general collaboration of the forestry department and natural resource department from the initial stages of project notification to selection of tree seeds to establishment of tree nurseries at schools.

Further appreciation to Kisarawe Educational officer Mr. Kalinga H.A and all his staffs for their positive respond especially in selecting schools, introducing JEMA and the project to the primary schools and overall participation in the project.

More thanks should go to the primary schools themselves as main stakeholders, particularly Head teachers, environmental teachers and kids involved. There fully collaboration, involvement and general project acceptance have been tools and secrets behind project implementation in a successful manner.

Last but not least, I would like to thank the Rufford Small Grant Foundation for the financial support through which the carrying out of this project has been possible. More thanks to Jane Raymond for keeping in touch with me, receiving and approving my progress reports. I appreciate.

Abstract

Environmental Education and Conservation Programme (EECP) was designed to involve school children and school environmental teachers to care for and improve educational and communal (especially forest) environment thereby creating an environmentally active generation for sustainable development.

To realize this objective, the program incorporated the provision of basic environmental education to primary school children situated close to the Kazimzumbwi forest reserves in Kisarawe along with formation of school-children's environmental clubs. The program also involved the establishment of tree nurseries at school grounds and provides an opportunity for children to practice outdoor environmental conservation activities. The project seeks to improve and increase awareness on environmental issues for present survival without compromising the ability and aspirations of the future generation to also survive. The project has been implemented for a period of 9 months (September 2008 to May 2009) involving primary school children and teachers as main stakeholders, the Joint Environment and Development Management Action (JEMA) based at the University of Dar es salaam as well as relevant local government authorities in Kisarawe Districts, in the Coastal Region of Tanzania. 8032 children in 21 primary schools have been reached by environmental messages under the project. 1307 school children were subjected to environmental education and 32 imparted a practical knowledge through training related to tree nurseries establishment, seeds preparations, seedlings raising in nurseries, tree planting and caring respectively. On the other hand, 29 primary school environmental teachers did attend the environmental education whereas 19 teachers participated the environmental practical training session. More than 5000 environmental materials were prepared under the project to raise environmental awareness and impose environmental knowledge. These are Posters, Brochures, Flayers and other documents relevant for the education and training.

A total of 105,000 seeds of different species have been equally distributed to schools involved under the project (5000 seeds each school - Indigenous, Fruit and Decorative tree seeds). Schools also have been provided with 2kg of polythene tubes to be able to establish tree nurseries at school grounds. All schools have managed to establish the tree nurseries.

In general terms, the project has received a positive respond from the primary school kids and teachers as main stakeholders. The project has also provided a commendable contribution in the strategy of the government of United Republic of Tanzania to address land degradation and safeguard water catchments which are critical environmental problems.

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LIST OF ABBREVIATIONS:

ARU:	Ardhi University
COET:	College of Engineering and Technology
CSOs:	Civil Society Organizations
DUCE:	Dar es salaam University College of Education
EECP:	Environmental Education and Conservation Programme
JEMA:	Joint Environment and Development Management Action
NEMC:	National Environmental Management Council
NGOs:	Non Government Authority
P/M:	Primary School
RSGF:	Rufford Small Grant Foundation
TTSA:	Tanzania Tree Seeds Agency
UDSM:	University of Dar es salaam
WWF:	World Wildlife Fund

1.0 Project Proponents

Mr. Leonard Gastory Lugali currently is a student pursuing a Master degree of Integrated Environmental Management based at the University of Dar es salaam (UDSM). He is also a research fellow in the Waste Stabilization Ponds and Constructed Wetland Project based at the College of Engineering and Technology (COET - UDSM Campus College). He is a specialist in Water resource engineering, wastewater and solid waste management. He also has experience in coordinating and implementing environmental awareness, training, education and conservation programmes in both rural and urban areas to children, youth and adults.

Mr. Leonard is also the Coordinator of JEMA (Joint Environmental and Development Management actions). JEMA is an environmental organization designed in 1996 to serve environment and communities at higher learning institutions, also to link the higher education and the community in environmental matter. To date, JEMA is a registered public interest organization with registration number 48684 under the laws of the United Republic of Tanzania, and has its headquarters based at the University of Dar es salaam and branches at the Dar es salaam University College of Education (DUCE) and Ardhi University (ARU).

JEMA has members with background of wildlife, sociology, forestry, education, law, economics, environmental engineering and development studies based at the higher learning institutions in Tanzania. JEMA mission is to provide a framework for promoting participatory community based actions in environment and natural resource management for sustainable development through multidisciplinary, collaborative and action based approaches. JEMA believe that sustainable development will not be achieved unless the knowledge gap between Universities and local communities is narrowed down into shared experiences.

JEMA has ten years experience in conservation efforts in Tanzania. JEMA has undertaken a number of schools - community based conservation activities including provision of environmental education, tree planting, conducting workshops, training, debates and managing wastes as part of its voluntary outreach services. As parts of its achievements, JEMA has received 1st prize under the

Coastal Environment Award Scheme for 2002, 2004 and 2005 in Kinondoni which is part of Tanzania Coastal Management Partnership sponsored by GreenCOM, Coastal Resources Centre and USAID. JEMA has also been the first winner under the community environmental award scheme of the environmental education category in Temeke in 2008. JEMA in collaboration with other environmental partners wishes to expand its services to reach as many higher learning students as possible, to serve the wider community and to address many environmental problems to the maximum efficient and participation possible.

2.0 Project Description

Kisarawe district is among the six district of the Coastal Region in Tanzania. The district comprises of four forest reserves both owned by the central government. Being close to the Dar es salaam City, the district experience heavy deforestation especially for those forests surrounded by villages where by trees are cut down in big numbers for daily domestic and business requirements of urban dwellers and villagers themselves. On the other hand, routine tree planting seems not to be a priority to many people due to low education, awareness and participation of the public on environmental conservation issues. Other factors that pose a serious concern include uncontrolled forest fires caused by farmers while clearing their farmlands, fires started by hunters in bush and forests and fires as a result of honey collecting activities.

A number of initiatives have and are continually being done to restore the natural environment and correct the previous mistakes by the government of the United Republic of Tanzania as well as the local and international conservation interest NGOs and CSOs. However most of the initiatives are designed to involve adults in the conservation efforts. Neither school programs nor community based activities have been designed to involve children in the awareness and conservation process despite of their importance for future forest and general environment conservation.

Environmental Education and Conservation Programme (EECP) has been designed to acknowledge the importance of raising environmental awareness among primary school kids and teachers so as to ensure their participation in measures to protect,

preserve and sustain the environment and its resources. The overall aim was to create an environmentally active generation for sustainable development.

The programme also aims at providing basic environmental education to primary school children situated close to the Kazimzumbwi forest reserves in Kisarawe along with forming school-children's environmental clubs. Further more, to establish tree nurseries at school grounds and provide an opportunity for children to practice outdoor environmental conservation activities. The programme has been implemented with the expectation that educated and trained kids will continually have positive impacts and act as watchdogs to the environment at school grounds, residences and reserved areas. Also, increased capacity amongst environmental teachers will bring about continuous improvements on environmental awareness and conservation efforts.

3.0 Overview of activities carried out

3.1 Preparation of Project Implementation Plan

The Implementation Plan for the project was prepared in the initial stages of the project to guide the overall undertakings under the project and to ensure optimum utilization of resources. The plan did accommodate all competing goals of scope, time, cost and quality expected under the project. The table below presents the implementation plan of the project.

Sn.	Item	Activity	Time Frame							
			2008			2009				
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
1	Project notification	Notifying and planning with team members	█							
		Notifying local government authorities	█							
		Obtaining permission to carry out the program	█							
2	Schools involvement	Selection of schools	█							
		Program notification to schools		█						
		School visits for data collection		█						
3	Educator's training (team members)	Preparation of materials & resources		█						
		Selecting and notifying training facilitators		█						
		Training of Educators		█						
4	Environmental education	Preparation of required materials & resources		█						
		Delivering environment education		█	█	█	█	█		
5	Practical Training for school environ. teachers	Materials and site preparations				█				
		Conducting practical training workshop					█			
6	Establishment of tree nurseries at schools					█				
		Preparation of required materials & resources				█				
		School visits and nursery establishments					█	█	█	
7	Ending the program	Program evaluation								█
		Report writing and submission								█

Table 01: Project Implementation Plan

3.2 Project Notification

The project was notified to the local authorities of Kisarawe district including the offices of Executive Director, Education Department, Natural Resource Department as well as the Forestry Department.

3.3 Selection of Primary Schools

Upon notification, the education department assisted the project to select 21 primary school near and surround the Kazimzumbwi forest in Kisarawe to be involved in the project. The Kisarawe Education Officer also did introduce the project to the selected primary schools and offer a permit to carry out the project. To make the project effective, an annual timetable was provided to project proponent to guide the study sessions in primary schools in Kisarawe. Below is a list of Primary Schools selected to be involved in the project.

Serial Number	Name of Primary School
1	Kazimzumbwi
2	Kisanga
3	Kifuru
4	Kibasila
5	Sanze
6	Kitanga
7	Maguruwe
8	Homboza
9	Msimbu
10	Gumba
11	Bwama
12	Mwanzomgumu
13	Visegese

14	Sungwi
15	Masaki
16	Mtamba
17	Kauzeni
18	Kibuta
19	Luhangai
20	Mhaga
21	Marumbo

Table 02: A list of primary schools involved under the project

3.4 Survey and Information Gathering From Schools

After making all proper arrangements with the local government at the district level, Project coordinator in collaboration with JEMA secretariat did visit the selected primary schools for the first time to introduce the project and make a prior survey at school grounds to gather all necessary information that would be required for making decisions on the later stages of the project. The surveys at school grounds were conducted in collaboration with Head Teachers and Environmental Teachers at Primary Schools. The information collected includes;

- Name of the primary school.
- Primary school postal and physical addresses
- Names of head and environmental teachers.
- Number of pupils
- Estimated total primary school area.
- Estimated primary school area without trees.
- Number and types of appropriate shading, fruits and decorative trees.
- Contacts including email address, telephone and mobile numbers.

The table below present a summary of prior information collected from selected primary schools.

S/no.	Name of School	P. O. Box	Physical Adress	Head Teacher	Environmental Teacher	Mobile (Head Teacher)	Mobile (Environment Teacher)	Total Number of Pupils
1	KAZIMZUMBWI	28001	MKUNDI	DAVID J. MWAISWELO	KHALID LUBIKI	784708426	712248569	378
2	KISANGA	28001 KISARAWÉ	KISANGA	CHARLES D. DAMARU	GANDIOZA LAUREANI	0787 451724	0787 155953	432
3	KIFURU	28001 KISARAWÉ	KIFURU	ASHIBAE M. MAKUNGA	LETICIA B. MAPESA	0782 252338	0787 101214	159
4	KIBASILA	28001 KISARAWÉ	KISARAWÉ	STELLA MKUDE	HILDA MALEKANO	0713 396645	0713 396645	534
5	SANZE	28001 KISARAWÉ	SANZE	HAMZA	JUMANNE NAMKUNZI	0713 448659	0757 098681	342
6	KITANGA	28001 KISARAWÉ	MSIMBU	ONESMO ISAKA	PERAZIA KAROLI	782359260	786974580	400
7	MAGURUWE	28001 KISARAWÉ	KISARAWÉ	YAKUBU A. LILOMO	WILLIAM E. MHAWI	782493636	716183729	207
8	HOMBOZA	28001 KISARAWÉ	HOMBOZA	VICTOR MSHANA	TULASCA PAYAWELA	0784 741520	0782 209191	463
9	MSIMBU	28001 KISARAWÉ	KISARAWÉ	BILESHI HAMISI	ASHIRADH KASHINGO	0784 208867	0787 455841	705
10	GUMBA	28001 KISARAWÉ	KISARAWÉ	RAPHAEL A. ATHUMANI	FLORENSIA NDAUKA	0716 887703	0784 893487	362
11	BWAMA	28001 KISARAWÉ	KIBUTA	REUBENI SHEHEMBA	FLAVIANA MATABA	0784 248461	0784 444189	260
12	MWANZOMGUMU	28001 KISARAWÉ	MWANZOMGUMU	HASSANI ABDALLAH	LAMECK REUBEN	0784 504868	0782 683787	423
13	VISEGESE	28001 KISARAWÉ	KISARAWÉ	RAMADHANI MTOSA	RIZIKI KASIMU	0714 814108	0787 064092	184
14	SUNGWI	28001 KISARAWÉ	SUNGWI	STEPHEN FARU	MICHAEL SEMLAMBA	0787 237434	0787 348075	407

15	MASAKI	28001 KISARAWWE	MASAKI	INNOCENT E. MUYEBE	JANE LYIMO	786181641	784740279	706
16	MTAMBA	28001	MTAMBA	DENSON FRANCIS	ERASTO CHAMBO	787922607	784813750	281
17	KAUZENI	28001	KAUZENI	MIKIDADI MBELWA	SELEMANI NGAKALA	786072859	783899284	331
18	KIBUTA	28001 KISARAWWE	KIBUTA	SAUMU MUYA	EDNA MAPFA	0787 955041	0787 167589	405
19	LUHANGAI	28001 KISARAWWE	MSIMBU	ANDREA MGAYA	SHAFII MNANDA	0784 751560	0783 969391	436
20	MHAGA	28001 KISARAWWE	KIBUTA	FIDELIS CHILEMBA	RAHEL L. MBILINYI	784898069	787751045	265
21	MARUMBO	28001 KISARAWWE	MARUMBO	PANCRAS I. DEOGRATIAS	ATHUMANI KONDO	0787 830393	0786 411152	352
Total								8032

Table 03: School information collected during notification survey

3.5 Environmental Education

3.5.1 Environmental materials

Appropriate environmental education materials were prepared for school children and environmental teachers. The materials included posters, flyers and brochures covering a wide range of environmental information and facts presented in simple language with the aid of photos and relevant figures. Standard environmental education and training documents to guide facilitators were also prepared to guide educators in delivering environmental education and training. The project also utilizes some environmental education books from other partners especially WWF Tanzania, Evironcare and the National Environmental Management Council (NEMC) of Tanzania. In total, More than 6300 environmental materials (Education package, brochures, flyers, posters and books) were prepared/collected and disseminated to the stakeholders especially primary school children and teachers. Most of these materials were in Swahili language so as to facilitate stakeholders understanding and participation.

3.5.2 Education delivering

The project employed skilled and experienced JEMA secretariat staffs who are also students and graduate based at the University of Dar er salaam. These are:

Name.	Gender	Remarks
Catory Ntullu	Male	UDSM Graduate (Bachelor) & JEMA Outreach Office
Juliana Yonam	Female	UDSM student (Bachelor) & JEMA Administration Officer
Elijah Kondi	Male	UDSM student (Master) & JEMA outreach Officer
Baseka Muholeza	Female	UDSM student (Bachelor) & JEMA financial officer
Leonard Gastory	Male	UDSM student (Master), JEMA coordinator & project coordinator

Table 04: Project Facilitators

At primary schools, a class of 60 – 80 pupils and 1 to 3 primary school teachers was prepared and arranged. 2 - 3 educators from JEMA secretariat visited each school for the purpose of delivering environmental education for 2 - 3 hours. The education involved presentations, questions and answers sessions as well as comments and recommendations from school children and their teachers. Children were given environmental materials for further reading; other materials were left to environmental teachers for continuous uses eventually. To gain children attentiveness, some motivational materials such as pencils, pens, rulers and exercise books were introduced at the beginning of the education sessions and provided to children at the end of each session.

At the end of the education session, the school environmental club was formed at each school basing on those children attended the education session. This club was given the responsibilities to act positively towards environment protection and to be school environmental watchdogs. Two continuing pupils (a male and a female) out of the participated group were chosen democratically and sometimes with the assistance from teachers to be leaders of the established environmental group.



One of the school Environmental Club at Kazimzumbwi Primary School

The table below present the information gathered by educators during education sessions at schools:

Name of School	Total Pupils Educated	Male Pupils	Female Pupils	Teachers Attended	Preparation Level	Pupils Response	Teachers Response	Selected leaders of Envirn. Clubs	Overall Remarks	Names of Educators
Kazimzumbwi	76	38	38	2	Good	Excellent	Very Good	Said Ally (M) Ambika Kamonga (F)	Very Good	Elijah Kondi Baseka Muholeza
Kisanga	80	45	35	0	Not Good	Good	Nil	Rajabu Abasi (M) Halima Salumu (F)	Good	Leonard Gastory Castory Ntullu Juliana Yonam
Kifuru	60	25	35	1	Very Good	Good	Very Good	Yakobo Siwajibu (M) Nuru Hossein (F)	Very Good	Leonard Gastory Castory Ntullu Juliana Yonam
Kibasila	70	36	34	2	Very Good	Excellent	Excellent	Josephat Masabali (M) Goreth Peter (F)	Nil	Castory Ntullu Baseka Muholeza
Sanze	60	24	36	2	Very Good	Good	Excellent	Abel Kingu (M) Ixundu Jumanne (F)	Good	Castory Ntullu Juliana Yonam
Kitanga	61	31	30	3	Very Good	Very Good	Very Good	Jafari Iddy (M) Christina Jonas(F)	Very Good	Castory Ntullu Elijah Kondi
Maguruwe	68	32	36	1	Average	Very Good	Good	Selemani Yahya(M) Asha Mohamedi(F)	Good	Leonard Gastory Castory Ntullu Elijah Kondi

Homboza	64	33	31	2	Good	Very Good	Good	Baraka Zacharia (M) Ashura Athumani (F)	Good	Castory Ntullu Juliana Yonam
Msimbu	60	23	37	1	Encouraging	Nil	Nil	Mwalami Hamisi (M) Hadija Abdala (F)	Nil	Elijah Kondi Castory Ntullu
Gumba	60	30	30	2	Convincing	Impressive	Supportive	Hamisi Buto (M) Amina Hassan (F)	Good	Elijah Condi Castory Ntullu
Bwama	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Mwanzomgumu	72	38	36	1	Very Good	Very Good	Very Good	Ibrahim Hamis (M)	Very Good	Castory Ntullu Baseka Muholeza
Visegese	60	30	30	0	Very Good	Very Good	Nil	Selemani Said (M) Veronica Stephano (F)	Very Good	Castory Ntullu Julinana Yonam
Sungwi	68	30	38	2	Very Good	Good	Good	Jonas Christian (M) Mariam Mrisho (F)	Well Done	Leonard Gastory Elijah Kondi Baseka Muholeza
Masaki	60	25	35	1	Very Good	Very Good	Very Good	Idd Mkugwa (M) Elizabeth Kanga (F)	Very Good	Castory Ntullu Juliana Yonam
Mtamba	69	33	36	1	Encouraging	Good	Good	Yassin Jummanne(M)	Good	Castory Ntullu Elijah Kondi

Kauzeni	60	27	33	2	Fair	Good	Very Good	Amadalan Rahim (M) Zuena Ramadhani (F)	Very Good	Leonard Gastory Castory Ntullu Baseka Muholeza
Kibuta	69	28	41	1	Excellent	Very Good	Good	Said Jumanne (M) Sikudhani Ramadhani (F)	Very Good	Leonard Gastory Castory Ntullu Baseka Muholeza
Luhangai	70	35	35	2	Well Done	Very Good	Very Good	Justine Samwel(M) Mariyamu Salumu(F)	Very Good	Leonard Gastory Juliana Yonam Baseka Muholeza
Mhaga	60	25	35	1	Impressive	Very Good	Very Good	Ibrahim (M) Sakina (F)	Nil	Castory Ntullu Juliana Yonam
Marumbo	60	30	30	2	Excellent	Very Good	Very Good	Faldhali Salm (M) Halima Mohamedi (F)	Very Good	Castory Ntullu Juliana Yonam
Total	1307	618	691	29						

Table 05: Overall school responses during education sessions

3.6 Selection of Tree Seeds

Appropriate large crowning indigenous trees suitably favored climatic and geologic conditions at Kisarawe were jointly selected by project proponents, forestry and natural resource departments at Kisarawe as well as the National Tree Seeds Agency in Tanzania (TTSA) who also did sell the seeds to the project. Three species of indigenous (local) trees selected. To meet the demands of primary schools as per prior visits to schools, the project proponent also selected one species of ornamental trees and one species of fruit trees for schools. Below is a list of selected tree seeds presented in local and English names.

Shading Trees		
Number	Local/Swahili name	Scientific/English name
1	Mtiki	Tectona Grandis
2	Mkaratusi	Eucalyptus Tereticornis
3	Mkongo	Afzelia Quanzensis
4	Mwerezi	Cedrela Odorata
Fruit Trees.		
Number	Local/Swahili name	Scientific/English name
4	Mpera	Psidium Guajava
Ornamental Trees.		
Number	Local/Swahili name	Scientific/English name
5	Muashoki	
Total	6	6

Table 06: Selected Tree Seeds for establishment of tree nurseries at school grounds

3.7 Environmental Training for School children and Teachers

The training aimed at preparing the primary schools children and environmental teachers to mobilize their colleagues at schools to correctly establish tree nurseries, raise trees, plant trees and continuously take care of them for future benefits. The training was therefore conducted during the rain season to better enable them start establishing the tree nurseries. The training took place at one of the primary school under the project (Masaki primary school) whereby 3 participants from each school; 2 pupils (a male and a female) and 1 environmental teacher attended. Out of 21 schools, 19 schools managed to attend the training. Both; theoretical and practical knowledge were imparted on the that day to participants. The project utilized potential theoretic skills from JEMA – UDSM and practical experience and knowledge from the forestry and natural resource departments at Kisarawe. Training documents and motivational materials were prepared and provided. Project proponents utilized the opportunity to establish a tree nursery at that particular school (Masaki Primary School) and distribute selected tree seeds to other participants (school teachers) so that they establish and care for the tree nurseries at their own schools basing on the knowledge gained at the training. Along with tree seeds, polythene tubes were also provided to schools to assist them in transplanting the tree seedlings. Each school committed to establish, raise and plant the trees at school grounds which some are within and others near the Kazimzumbwi forest reserve. Each school was given the following number of tree seeds:

Shading Trees		Number of seeds Provided
Local/Swahili name	Scientific/English name	
Mtiki	Tectona Grandis	500
Mkaratusi	Eucalyptus Tereticornis	2000
Mkongo	Azelia Quanzensis	500
Mwerezi	Cedrela Odorata	500

Fruit Trees.		
Mpera	Psidium Guajava	1000
Ornamental Trees.		
Muashoki		500
Total Seeds Provided		
		5000
Polythene tubes		
Total length of polythene tube provided		150m

Table 07: Species and quantities of tree seeds distributed to schools

3.8 Project monitoring and evaluation

Project monitoring was done by the project coordinator in collaboration with JEMA staffs and Temeke Forestry Officer from the beginning to the end of the project to make sure that the project implementation plan was put into action as a guideline and that the project objectives are achieved.

Project evaluation was carried out during the practical training sessions where school children, environmental school teachers and project proponents met. Evaluation was also conducted at the end of the project this time involved the Kisarawe forestry, natural resource and education departments as well as JEMA secretariat staffs. The evaluation aimed at assessing the overall project implementation focusing on project relevance, project management, stakeholders' participation, and materials disseminated, knowledge imparted, project achievements, problems encountered and draw comments and recommendations for better conducts of the project in the future. The achievements, problems and recommendations are hereby presented in the following chapters.

4.0 Project Achievements

To a great extent, the project has met its objectives; to raise environmental awareness to school children through dissemination of materials and education sessions, to train school children and teachers on better conservation practices at school grounds and communal areas, and to establish tree nurseries at school grounds, to better manage the environment especially the degraded Kazimzumbwi forest. Pursuant to meeting program objectives, the project has attained the following specific achievement;

- 20 Primary schools have been reached with a total of more than 8000 school children received environmental messages.
- 1307 school children and 29 school teachers have been subjected to a general environmental education.
- 32 school children and 19 school environmental teachers have been imposed to an environmental practical training focusing on tree nurseries establishment, seedlings raising, caring as well as tree planting and maintaining.
- More than 5000 environmental materials including posters, flayers and brochures have been developed and disseminated, in that way increased awareness amongst children and teachers at large about their roles and responsibilities towards sustainable environments.
- 5000 seeds of different tree species (Indegenous, Fruit and Shading) have been distributed to each school (21 schools) to be able to establish tree nurseries at school grounds to better practice environmental conservation.
- 21 tree nurseries have been established at 21 primary school situated within and close to Kazimzumbwi forest.
- Reached primary school children and teachers are more informed about environment protection and conservation and have developed a growing interest on sustainable environments.
- The project has improved information sharing between children, teachers, local government authorities and NGOs. The project has also enabled a link between local government authorities and primary schools with environment being a focal point of contact.

- JEMA staffs and members who have participated in the overall project management, training and delivering environmental education have gained much knowledge and experiences related to the environmental education and conservation to better apply it beyond this project lifetime and geographical reach. Further, the project has enabled students based at the University of Dar es salaam to serve the community.
- By delivering environmental education and training, establishing tree nurseries and promoting action based environmental conservation activities, the project has been an important tool in implementing the environmental policy of the United Republic of Tanzania and is in line with the strategies to address land degradation and safeguard water catchments.

5.0 Problems encountered

Along with meeting project activities and attaining a number of achievements, the following problems and challenges have faced the proponents in the course of implementing the project.

- **Lack of collaboration from schools**
Some primary schools Head and Environmental teachers do not appreciate the importance of environment; as a result they were slow in making proper arrangements for the project activities. The inadequacies were particularly observed in disseminating information to other teachers and school children, preparing children and classes for education sessions, prepare relevant facilities and personnel for environmental education, environmental training and establishment of tree nurseries.
- **Poor infrastructure**
Some schools such as Msimbo, Bwama, Kibuta, Kauzeni, Gumba and some others are very far away from the Dar es salaam and Kisarawe town. In addition, the geographic infrastructure especially roads and communication are very problematic especially during the rain season. This has brought about

transportation and communication difficulty especially during project notification, environmental education and training, and to some extent the problem has affected even the budget arrangement.



It was very difficult to visit schools especially during the rain

- **Presence of environmental problems beyond the project objectives**

From the discussions as well as the questions and answers sessions, a number of environmental problems were observed at almost all schools including lack of water, poor waste management systems, lack of tools and facilities and lack of finance to better implement conservation activities. The project proponents were requested to address them despite of the limiting scope and objective of the project.

- **Changes in climatic conditions**

In Dar es salaam Tanzania we always expect the main rain season to start from February to May every year. This year, things were a little bit different; the rain started on April and it ended on May. This delayed the establishment of tree nurseries at school grounds. This is because; rainfall is an important water source which does supplement water defiance for seedlings growth.

6.0 Comments and Recommendation

a) Post Project Monitoring

The very important step is to continue monitoring what we have accomplished in Kisarawe. In tree planting programs, normally the problem is not to plant trees, rather to maintain and care for the planted tree to the high survival rate to better realize their benefits.

With this view in mind, and in collaboration with especially the local government authority in Kisarawe, we have agreed to continue contacting and where possible visiting the school under the project, to assess the progress of tree nurseries, planted trees (Checking the survival rates) and assess the overall changes brought about by the project

b) Improving and extending the project

Ideally, the project seems to be the appropriate solution to degradation and deforestation problem. This is because, along with promoting action based conservation practices, the project is also preparing a group of environmentally active group which will continually be part of the conservation efforts and educate others.

That being the case, the project needs to be extended in terms of the geographic coverage as well as the target groups. Both; school children, school teachers, local community members/leaders and local community authorities need to be capacitated and enabled to take part along what is called Participatory Management of Environment. This approach will further bring about more cost effective project implementation, reflect the needs and expectations of the local community, assure projects' sustainability, enhance skills development and promote a greater sense of project ownership.

7.0 Financial Statement for the Project

	Project Item	Amounts (Tshs.)	Amount (£)
Project Notification	Transport costs	240,000	116.58
	Facilitators Honoraria	550,000	267.16
Development of environmental materials	80 kids booklets for 21 schools @850	1,428,000	693.65
	80 brochure for 21 schools @500	840,000	408.03
	5 posters for 21 schools @ 3500	367,500	178.51
	5 teachers guiders, 21 schools @2,500	262,500	127.51
	2 environment Policy copies, 21 schools @5000	210,000	102.01
	2 forest policy copies, 21 schools @5000	210,000	102.01
Delivering environmental education to school children	1 note book, 70 kids, 21 schools @ 600	820,000	398.32
	Motivational materials to school children (Pens, Pencils, Rulers, Exercise books)	380,000	184.59
	Honoraria to Educators	1,200,000	582.9
	Transportation costs to schools	800,000	388.6
Environmental Training to school teachers and children	3 flip charts @ 11,500	34,500	16.758
	Training package, 21 schools @ 3000	63,000	30.602
	1 box of mark pen @22,500	22,500	10.929
	1 writing pad, 21 teachers @2000	420,000	204.02
	1 note book, 42 children @600	25,200	12.241
	1 pen, 63 participants @400	25,200	12.241
	Meal and transport, 19 schools @ 10,000	190,000	92.293
	Facilitators transport from Dar es salaam	150,000	72.863

	Facilitators Honoraria	220,000	106.87
Establishment of Tree nurseries at schools	Purchase of seeds (Different species, different quantities)	945,000	459.04
	Purchase of Polythene tubes, 42kg for 21 schools @ 12,500	525,000	255.02
Administrative logistics	Communication, stationery and secretarial services	548,000	266.19
	Local travel costs	378,000	183.61
	Evaluation and monitoring (Supervision) costs	980,000	476.04
	Report writing and dissemination costs	200,000	97.15
	Bank Charges	80,000	38.86
TOTAL		12114400	5884.6

Table 08: Financial Logistics

8.0 Conclusion

More than 70% of the project objectives have been attained, that is: to raise environmental awareness to school children through dissemination of materials and education sessions, to train school children and teachers on better conservation practices at school grounds and communal areas, and to establish tree nurseries at school grounds, to better manage the environment especially the degraded Kazimzumbwi forest.

The project has also become to be relevant in terms of its coverage activities, coverage area, targeted groups and the time within which it has been implemented. It has been put into action at the proper time whereby the government of Tanzania is taking some measures and efforts to address land degradation and safeguard water catchments especially in most environmental sensitive areas and degraded lands as well as raising the livelihood of the school children.

The local government authority in Kisarawe and most of the school children and teachers have shown a positive respond towards project implementation as they were in need of trees and environmental education and training as their tools for ensuring better living and studying environments. In addition, children have appreciated the importance of good environment in relation to every day human and other living organisms' survival and have understood their roles towards environment protection and conservation for present and future benefits.