



# **IMPROVED ENROLMENT AND RETENTION IN PRIMARY SCHOOLS IN WAJIR COUNTY THROUGH CLIMATE CHANGE AND ADAPTATION SENSITIVE APPROACHES**

## **FINAL EVALUATION REPORT**

**(April 2016)**

*Prepared by:  
Dr. Geoffrey O. Owino  
Lead Consultant  
JSIG Consulting Group Limited  
P.O. Box 44762 00100  
Tel: 071263623*



# TABLE OF CONTENTS

TABLE OF CONTENTS .....	ii
LIST OF FIGURES .....	iv
LIST OF TABLES.....	v
ACKNOWLEDGEMENTS.....	vi
EXECUTIVE SUMMARY .....	vii
1. BACKGROUND .....	1
1.1 Objectives of the Evaluation .....	2
2. METHODOLOGY .....	3
2.1 Evaluation Framework .....	4
2.2 Desk Review .....	4
2.3 Key Informant Interviews .....	5
2.4 Direct Observation .....	5
2.5 Focus Group Discussions .....	6
2.6 Data Collection and Analysis .....	6
3. EVALUATION FINDINGS .....	7
3.2 Context of the Project Evaluation Area.....	7
3.3 Relevance and Appropriateness .....	10
3.3.1 Impact of Rocket Stove.....	10
3.3.2 Schools Creating Demand for Climate Friendly Growth.....	11
3.3.3 ICF Improved School Learning .....	12
3.3.4 Greening Schools .....	13
3.3.5 Reduced Barriers to Education .....	13
3.4 Effectiveness .....	14
3.4.1 Impact of Rocket Stove.....	14
3.4.2 Schools Creating Demand for Climate Friendly Growth.....	17
3.4.3 ICF Improved School Learning .....	19
3.4.4 Greening Schools.....	20
3.4.5 Reduced Barriers to Education .....	22
3.5 Linkages to Long-term Needs of Beneficiaries.....	24
3.6 Geographic Coverage.....	25
3.7 Coordination.....	25

3.8	Targeting .....	26
3.9	Transparency and Accountability.....	26
3.10	impact.....	27
4	CONCLUSIONS AND RECOMMENDATIONS.....	40
4.4	Conclusions.....	40
4.5	Recommendations .....	41

# LIST OF FIGURES

Figure 1 Survey Methodology .....	3
Figure 2 Type of School .....	7
Figure 3 Impact of Rocket Stove .....	15
Figure 4 Demand for Climate Friendly Growth .....	18
Figure 5 ICF Improved School Learning.....	<b>Error! Bookmark not defined.</b>
Figure 6 Greening Schools.....	21
Figure 7 Reducing Barriers to Education.....	23
Figure 8 Average Annual Enrolment Per School .....	<b>Error! Bookmark not defined.</b>
Figure 9 Average Monthly Attendance Rate .....	<b>Error! Bookmark not defined.</b>
Figure 10 Average Annual Drop- out Rate per School.....	37
Figure 11 Average Annual Transition Rate per School.....	39

## LIST OF TABLES

Table 1 Evaluation Framework.....	4
Table 2 Household reasons for children being out of school.....	27
Table 3 Perceptions about parents investing in education .....	35
Table 4 Community awareness and use of sustainable alternatives .....	37
Table 5 School enrolment information (year 2015).....	39
Table 6 School enrolment information (year 2016).....	27
Table 7 Average annual enrolment per school .....	35
Table 8 Enrolment as at march 2016 .....	37
Table 9 Average monthly attendance rate .....	39
Table 10 Change in overall attendance .....	27
Table 11 Drop-out rate.....	35
Table 12 Baseline annual drop-out rate per school.....	37
Table 13 Average Annual Transition per school .....	39

# ACKNOWLEDGEMENTS

JSIG Consultancy Group would like to convey sincere thanks and gratitude to the management and staff of RACIDA who did a great job organizing and ensuring logistical support throughout the course of the study; Sincere gratitude also goes to WASDA and ALDEF for their participation; I would like to appreciate the contribution of all the enumerators, school head teachers and household heads without whom the study would not have been successful. Finally, I would like to thank all community members for their cooperation during the survey.

Geoffrey O. Owino (PhD)  
Lead Consultant  
JSIG Consulting Group Ltd

# EXECUTIVE SUMMARY

The Rural Agency for Community Development and Assistance (RACIDA), Arid Lands Development Focus – Kenya (ALDEF) and Wajir South Development Agency (WASDA) implemented the project “Improved Enrolment and Retention in Primary Schools in Wajir County through Climate Change and Adaptation Sensitive Approaches” in the Wajir sub counties of Eldas, Tarbaj, Wajir East, Wajir North, Wajir South and Wajir West from April 2015 to March 2016.

The overall objectives of the project were to improve enrolment and retention in primary schools through climate change adaptation and mitigation. To achieve this, the project focused on installation of solar systems in schools, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, construction and provision of WASH facilities, improving environmental awareness and distribution of sanitary towels while working in partnership with local communities and relevant local and national government departments.

The evaluation exercise was carried out during April 2016 and the data necessary for the evaluation were generated from review of project documents, reports, key informants, focus group discussions, beneficiaries, interviews with staff and partners of the implementing organizations and observations. A total of 17 enumerators participated in the evaluation process, and the findings are as follows:

**Relevance and Appropriateness:** The overall project purpose and the key intervention activities are in line with the school and community priorities, and both the county and central government’s policies and strategies. In the opinion of the local community groups, the school heads and line staff of relevant local and national governments, the project deliverables were in sync with their plans and aspirations. Rocket Stove benefits met the communities desire for efficient fuel sources, Schools were the most appropriate facilities for Climate Friendly Growth demonstration, improved School Learning Environments were not only in the interest of the children, but also of the parents, Greening Schools, Supplementing Food, Nutrition and income Generation were all activities the community was keen about, and, Reducing Barriers to

Education empowered the girl child as noted by the head teachers and most community members.

**Effectiveness:** A total of 55,877 children had benefited from the project of which ALDEF supported activities had benefited 16,168 children, RACIDA supported activities benefited 33,982 children and WASDA supported activities 5,727 children. Average monthly attendance indicate an overall baseline attendance of 80% and end-line at 63%, which despite the decrease, indicate above average attendance as such significant retention of pupils in schools was also realized. There were also progressive increments in the average school attendance a reflection of project effectiveness. Coverage of PEV solar systems were also largely achieved based on the project capacity although needs were still high.

The project delivered institutional energy saving stoves as planned, the relevant know-how to operate the facilities economically provided. Cost savings were also recorded as a result of the energy saving stoves. This reflects significant improvement in appropriate technology adoption as a result of the project and less trees being cut down to service firewood demands. School environmental clubs were established, and became the stewards of climate change adaptation through sustainable tree generation in schools and within the communities at large. In the duration of the project 1428 boys and 1320 girls had joined up an environmental club. This augured well for climate change mitigation intentions of the project.

Significant gains were also realized through construction of climate friendly classrooms and boarding facilities. Schools in Wajir West had an average pupil to class ratio of 1 to 60, Wajir South had an indicative ratio of 1 to 36, Tarbaj had 1 to 68 and Eldas had a ratio of 1 to 18 while Wajir North had a ratio of 1 to 28, Wajir East 1 to 45 and Habaswein had a ratio of 1 to 22. Overall pupil to class ratio in Wajir stood at 1 to 39 based on the survey; a significant drop when compared to the baseline survey of 1 to 89 pupil to classroom ratio. Although other factors may have influenced the drop, significant project impact were derived from project deliverables, which included classroom construction works at Buna primary schools, kibilay primary schools, ICF primary schools, Volunteer primary schools, Hadado primary schools and rehabilitation works at Eldas and Griftu primary schools that benefited 971 pupils directly. The classrooms improved the learning environment, reduced congestion, motivated the children to learn and



parents to contribute towards learning activities and school development. The survey indicated Kutulo primary school, Griftu primary school and Leheley primary school were equipped with dormitories, which had 379 pupils accommodated. Access to water and latrines had also significantly improved in the schools. And this had tremendous impact on improvement of attendance due to fewer afflictions by waterborne pathogens. Overall, the deliverables that the project set out to provide to schools were satisfactorily achieved. These tremendous changes serve as an indicator of project effectiveness.

The distribution of sanitary towels covered girls in class 4 to 8. In ALDEF school's catchment, the beneficiaries of sanitary pads were 421 girls, WASDA covered 422 girls and RACIDA 1637 girls respectively. The total number of beneficiaries were 2480 girls over the project timeframe. The average attendance pre-distribution of sanitary pads was 71% and post-distribution average attendance increased to 89%, generally distribution of sanitary pads improved girls' attendance of school. The project met the intended aim of enhancing school attendance of girl child, with collaborative effort of a broad coalition of both local and international NGO's as well as the local and national governments. Although provision of sanitary towels is an on-going activity, on the part of the project the objectives were successfully achieved.

**Linkages to Long-term Needs of Beneficiaries:** The long-term needs of the beneficiaries were generated through interviews and focus group discussions and were identified as availability of spacious classrooms, school feeding program, lighting in school, sufficient number of toilets and availability of water, and the overall project objectives fit with these concerns voiced by the community either directly or indirectly. The key intervention activities were also in line with not only the community priorities, but also schools' priorities as voiced by the head teachers themselves. Additionally, the project activities met the county and central government's policies and strategies. The project supported establishment of 100 environmental clubs as stewards of the climate change adaptation sensitive approaches. The project set up robust communication channels based on long term relationship with not only the head teachers, but also with the school board of governors. The project staff also had relevant educational qualification mixed with local experience of the social dynamics of the project sites to make an informed analysis of

the community desires and lead the community to choose their own development priorities and to have them participate in tracking their own goals over time.

**Geographic Coverage:** The project coverage included the sub counties of Eldas, Habaswein, Tarbaj, Wajir East, Wajir North, Wajir South and Wajir West of which 100 schools were evaluated. The project in particular had beneficial effect on the local primary school going children, the community and tremendously supplemented county and national governments goals.

**Coordination:** project implementation required operations of the Kenya Essential Education Program (KEEP), Rural Agency for Community Development and Assistance (RACIDA), Arid Lands Development Focus-Kenya (ALDEF Kenya), Wajir South Development Agency (WASDA), the National Government and the County Government through various ministries and departments as well as the community and head teachers of schools. The success of the project therefore depended on seamless coordination of human capital, equipment, materials and logistics. These were achieved through inclusivity and complementarity, project level planning and communication, timeliness, decentralized management and effective decision making structures.

**Targeting:** The project targeted 100 schools that were the neediest, and that included 20 schools in Wajir East 9 schools in Wajir South, 20 schools in Wajir West, 8 schools in Habaswein, 16 schools in Tarbaj, and 12 schools in Wajir North. Delineation based on recipients of classrooms, boarding facilities, water and sanitation facilities had to be matched with criticality of the need thereby making it possible for the project to have maximum impact. The project benefited a total of 42,958 learners, and made special effort to create an enabling environment for girl's enrolment, retention and attendance of school. The project also identified categories of special needs affecting school going children for dedication of project deliverables.

**Transparency and Accountability:** The implemented project had the full awareness of all the stakeholders including county and national government line officers, local leaders and religious leaders. At the local level, the investment works were coordinated by the head teachers of the beneficiary schools. The project also had a highly accountable and transparent information

sharing mechanism that encouraged knowledge transfer to schools and local communities and vice versa. All the planning, performance and financial status of activities were readily accessible to the beneficiaries to facilitate quality feedback and input. Beneficiaries had also been empowered to assume project accountability.

**Impact:** The reduction in use of wood fuel, savings to schools' activity budgets, cost savings to households, Time Savings, Demand for rocket stoves, Community awareness and sustainable tree plantations are all factors that created the right environment for the communities of Wajir, most of whom are disadvantaged, to have enhanced capacity to adapt to climate change challenges facing them. Schools as the nucleus of project activities were equipped with appropriate infrastructure that included Dormitories and Classrooms, WASH facilities, Green technologies, Water storage tanks and rainwater harvesting facilities to create not only a suitable school learning environment, but also to build on that climate friendly growth in the community. More importantly the project adequately addressed barriers to education of girls in the target areas.

As a result of project interventions, schools benefited, in the short run, from installation of solar, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, distribution of sanitary pads and life-skill trainings for vulnerable girls, and increase access, retention and improved quality of education, but also created in the long run a platform for the community to adapt to climate change.

**Conclusions:** The project inputs were highly relevant, and project planning, organization and implementation were participatory and targeted the needs prioritized by the beneficiaries. Rate of project activity implementation is high, and installation of solar systems in schools, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, construction and provision of water and latrine facilities, distribution of sanitary towels and sensitization on climate change were fully delivered. The project is effective in terms of meeting its specific objectives for the target beneficiaries, and improvements were realized in enrolment, retention, attendance and completion in schools; however, climate change benefits are long term and require more resources and time.

**Recommendations:** includes a review of the specific needs of schools on a regular basis to get a deeper understanding of changes affecting sustainability of project deliverables. Develop novel mechanisms for scaling up climate change adaptation and mitigation approaches. Supplementary effort need to consider construction of latrines and water points with physically challenged in mind. Fully engage county government line ministries in project implementation to enhance sustainability of infrastructure deliverables and assurance of lasting benefits. Include supplementary budget in future for local inexpensive mechanisms for ascertaining the quality or fitness of water for school children’s consumption supplementary effort need to take into account ecologically sustainable management of pit latrines. Increase the number of community members, living in the vicinity of the schools, equipped with the relevant skills to provide maintenance services for infrastructure developments. On the strength of the good results achieved, continue to promote increased access to improved WASH facilities, classroom and boarding infrastructure, distribution of sanitary pads and action on climate change and its impact.

# 1. BACKGROUND

The project “Improved Enrolment and Retention in Primary Schools in Wajir County through Climate Change and Adaptation Sensitive Approaches” was implemented in several sub counties of Wajir County by Rural Agency for Community Development and Assistance (RACIDA) and its partner organizations along 2015-2016 timelines.

The project sites were spread throughout Wajir County, which borders Somalia to the east, Ethiopia to the north, Mandera County to the north-east, Isiolo County to the south west, Marsabit County to the west and Garissa County to the south. Wajir county is expansive, with no tarmac road or rail network, receives average annual rainfall of 240 mm and temperatures average 27.9 degrees centigrade as such stifling, amidst numerous challenges of underdevelopment.

There are eight sub-counties of Wajir, which include Wajir East, Tarbaj, Wajir West, Eldas, Wajir North, Buna, Habaswien and Wajir South. And these have three lower tiers that include 28 divisions, 128 locations and 195 sub-locations. The numbers of primary schools prior to 2015 were 203 with enrolment of 59,065 pupils made of 35,928 boys and 23,137 girls. Several NGO’s are active in the region, among them is RACIDA itself, others are WASDA, Arid Land Development Focus (ALDEF), Oxfam, World Food Program (WFP), Save the Children-UK, Kenya Red Cross Society, Islamic Relief-UK, Veterinary Sans Frontiers (VSF), World Vision, Mentor and District Pastoral Association.

It is within this background that The Improved Enrolment and Retention in Primary Schools in Wajir County through Climate Change and Adaptation Sensitive Approaches project was implemented in the sub counties of Eldas, Tarbaj, Wajir East, Wajir North, Wajir South, Wajir West and Habaswein by RACIDA, Arid Lands Development Focus – Kenya (ALDEF) and Wajir South Development Agency (WASDA) to address the challenges of accessibility, retention and completion in basic education as well as increased awareness of climate change and its impact in the region.

The proposed project targeted 100 primary schools situated in the six sub counties, and included 40,159 children as beneficiaries. The intervention areas were installation of solar systems, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, and distribution of sanitary pads. The project ended on March 2016 and JSIG Consulting Group Limited was contracted to carry out the evaluation exercise. The evaluation work took place from April 1<sup>st</sup> to 15<sup>th</sup>, and involved RACIDA and WASDA employees in various capacities as well as local communities and school agents, either as informants or implementers of the exercise.

## 1.1 OBJECTIVES OF THE EVALUATION

The overall objectives of the evaluation were to assess the relevance and appropriateness, outcomes, support linkages for long term needs of schools, coverage, effectiveness, coordination, transparency and accountability of the project. The requirement was specifically to undertake the following work.

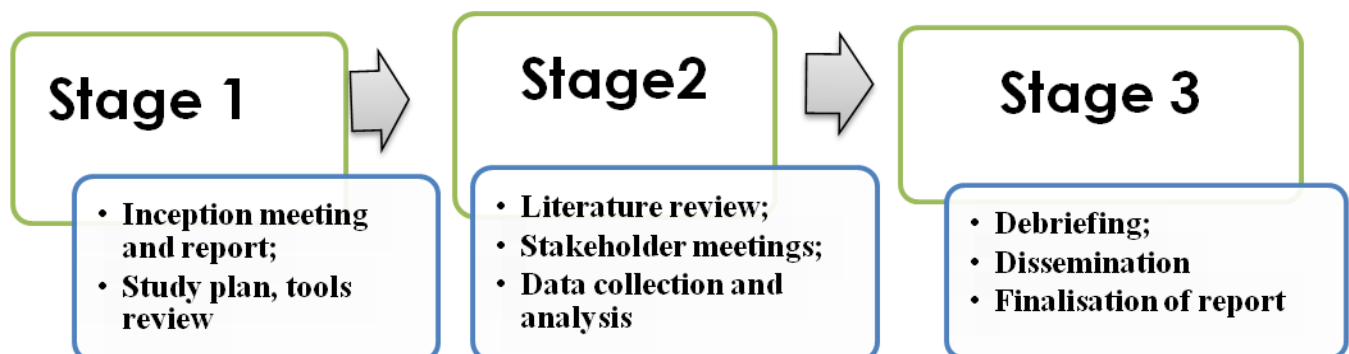
- i) Assess the relevance and appropriateness of the project to the context;
- ii) Measure the outcomes of the project against the original results using the objectively verifiable indicators.
- iii) Assess the connectedness of the project or how well project links support to long-term needs of the schools and their host communities and recommend how to address any gaps;
- iv) Assess whether the geographic coverage of the project is adequate and beneficiaries reached compares to the identified targets set out in the proposal;
- v) Determine the effectiveness of programme delivery in both the project design and implementation;
- vi) Ensure that the evaluation research plan takes into account good practice in the implementation of the project by RACIDA and conduct interviews and focus group discussions with SMCs/BOM in the targeted schools;
- vii) Assess the nature and quality of coordination with other actors;
- viii) Assess the level of accountability to beneficiaries in terms of transparency to beneficiaries, beneficiary feedback systems and beneficiary involvement in the project;
- ix) Assess the degree to which the program specifically targeted and reached the needy schools and learners as well and any other marginalized groups in the project area;
- x) Assess the extent to which the project has complemented other education programs in Wajir County; and
- xi) Provide a summary of key findings and any recommendations to improve the programme in the future.

## 2. METHODOLOGY

The evaluation included field work, which covered schools in Eldas, Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West. Participation of stakeholders was an important factor in the evaluation process, and included RACIDA, WASDA, cooks, environmental clubs, head teachers, artisans, and boarders, board of managements, government officials and pupils. The evaluation used desk reviews, key informant interviews, direct observation and focus group discussions as well.

The survey adopted a participatory approach in managing the assignment to ensure the stakeholder's influence and share control over development initiatives and the decisions and resources which affect them. To this effect, the consultant used Participatory Rural Appraisal (PRA) techniques. Participatory rural appraisal is a specific form of rapid rural appraisal (RRA) (a research technique developed by researchers in international development). The approach enables learning from and with the stakeholders through investigation, analysis and evaluation of constraints and opportunities regarding developmental issues facing the stakeholders. The approach was systematically employed to collect information. The study was done in a three stage study methodology as shown by the figure below.

**Figure1 Survey Methodology**



## 2.1 EVALUATION FRAMEWORK

An evaluation framework was developed as a basis for discussion with RACIDA to clarify the objectives, assessment tools, and main sources of information.

**Table 1 Evaluation Framework**

Evaluation Framework				
Study Objectives	Detailed Questions	Indicators	Sources of Data	Proposed Analysis
The main issues and objectives presented in the ToRs	A detailed elaboration of the study questions	Key indicators of change, based on the detailed questions and a review of the available secondary literature and data	Clear specification of the sources of data will ensure the team identifies precisely whom we need to interview and what kind of material we need to examine.  Methods are expected to include: review of literature and analysis of secondary data; structured interviews; site visits and observations; in-depth interviews and focus group discussions.	The analysis column helped the team to clarify exactly how results would be presented, to make sure that the proposed data was suitable for the planned analysis

Within this framework, each objective was broken down as much as possible to develop sub-objectives and questions. Appropriate tools were developed for soliciting adequate and relevant information for analysis. The framework provided a basis for systematic expansion of the study questions into sub-questions, which then was used to compile questions, interview guides and checklists to guide the study team during fieldwork.

## 2.2 DESK REVIEW

Desk review was done using baseline survey documents and logical framework as well as progress reports to understand mainly how school enrolment, retention, attendance and completion as well as awareness about climate change and its impact matters concerning Eldas,



Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West were standing at the start of the project, and the realized outcomes.

## 2.3 KEY INFORMANT INTERVIEWS

The survey ensured that data was collected through informant interviews, household surveys and focus group discussions. Survey tools that captured all the relevant data was developed by the funding party. Primary data was collected through a series of discussions with key stakeholders, Data collection was carried out by a team comprising of the lead consultant and enumerators. The informant interviews and survey was ideal for this kind of work because this enabled the consultant to come in direct contact with people who were studied. Informant interviews and survey also enabled greater objectivity as the data was not influenced by any ones belief. Additionally, this approach brought to light a number of problems and prepositions allowing full emotional impact of social situations and social dynamics impacting the targeted communities. Cooks, environmental clubs, head teachers, artisans, board of managements, government officials, pupils and boarders, were the key informants. The interview questions were designed to provide information concerning the Impact of Fuel Efficient Rocket Stove, schools as demand creators for climate friendly growth, ICF climate friendly green technology for improved school environments adoption, greening schools supplementing food, nutrition and income generation and reducing barriers to education.

## 2.4 DIRECT OBSERVATION

A checklist was developed to capture the situation concerning interventions of installation of solar systems, construction of institutional energy stoves; construction of climate friendly classrooms and boarding facilities; distribution of sanitary pads. The classroom observations checklist included general conditions, adequacy for boys and girls, the nature of lighting, special needs friendliness, adaptation for hot climate. The observation checklist regarding boarding facilities covered general conditions, adequacy, lighting, availability of equipment's such as beds, consideration for local climatic conditions were taken into account in building designs and have special needs considerations.

The checklist on water and sanitation facilities included general conditions of latrines, adequacy for boys and girls, disability friendliness, availability of water, water storage facilities and availability all year round. Sanitary towels observations included reusability, adequacy and source, and finally the observations included general conditions and connectivity of water facilities, adequacy for hygiene and sanitation, drinking and vegetable plots or tree planting as well as existence of water storage facilities.

## 2.5 FOCUS GROUP DISCUSSIONS

Focus group discussions were conducted during field evaluation exercises and included community groups, pupils, teachers and school management committees, and were aimed mostly at collecting qualitative contextual information on the characteristics of project interventions, achievements and the intervention environment that included Eldas, Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West. The focus group discussions used participatory methods and tools to assess the intervention. School environmental clubs and community, girls' camps and forums and boards of management were the main focus.

## 2.6 DATA COLLECTION AND ANALYSIS

Two consultants from JSIG Consulting Group supported with the staff of RACIDA, WASDA and ALDEF collected data from 100 schools, covering Eldas, Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West. Triangulation was one of the approaches used. Collected data was captured in suitable software such as CSPro (Census and Survey Processing System). After capturing the data, it was exported to SPSS (Statistical Package for Social Scientists). The data was analysed using descriptive statistics (tables, graphs and summary measures). Qualitative analysis of information gathered through focus group discussions and key informant interviews was analysed systematically where emerging common issues as well as areas of convergence and divergence with respect to issues surrounding the study criteria were

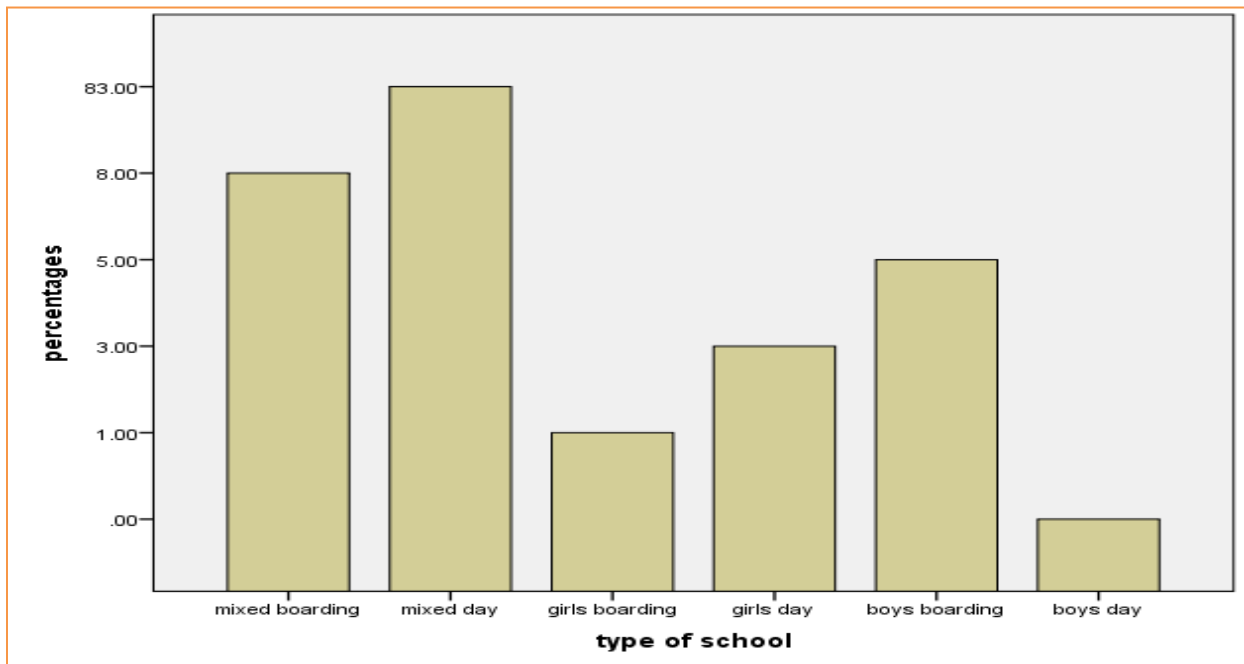
picked. The analysis followed three steps of data reduction; data display and conclusion drawing. Secondary quantitative data was extracted from various sources including institutional databases, national assessment reports. This data was analysed and presented either in tabular or graphical form.

### 3 EVALUATION FINDINGS

#### 3.2 CONTEXT OF THE PROJECT EVALUATION AREA

The community household members were 42 % male and 58% female. Majority of them (87%) were pastoralists and 8.3% were agro pastoralists while 8.3% were urban oriented. Head of households included 66.7% males and 33.3% females and majority (35.3%) were in the 31-40 age brackets. The respondents generally had no formal education (85.9%), enrolled primary were 8.6% and those who had finished primary or enrolled in secondary constituted 1.1% each while those who had finished secondary were 23.3%.

**Figure 2 Type of School**



On average majority of the schools were within a radius of 5 Km from majority of the households. 96.4% of the households were using the three stone Jiko while 3.6% relied on traditional metal Jiko, as such firewood use was higher at 80% while use of gas at 3% compared to the baseline values at 93.7% firewood use. Figure 2 shows that majority of the schools (83%) that participated in the survey were mixed day, 8% of them were mixed boarding, 1% girls boarding, 3% girls' day, 5% boys boarding while none were boys' day.

Qualitative findings indicate an improvement in the attitudes towards education. For example, among the reasons for why children are kept out of school, the factor that had the greatest significance was that of children having to look after livestock at 30% for boys and 40% for girls, followed by how poor and ability to afford taking children to school at 24% for boys and 30% for girls as indicated in table 2. This contrasts to the baseline observations in which the respondents scored highest for the factor; having the children look after livestock at 59.9% for boys and 47.9% for girls respectively.

**Table 2: Household reasons for children being out of school**

<i>Reason for children being out of school</i>	<i>Boys (%)</i>	<i>Girls (%)</i>
<i>I am too poor to afford to take children to school</i>	24	30
<i>I need the children to look after livestock.</i>	30	40
<i>I need the children to help me at home with domestic work</i>	20	6
<i>I do not believe public school education is worth the investment</i>	6	6
<i>Schools are too far away for the children</i>	8	9
<i>I prefer to send my children to Duksi.</i>	5	4
<i>There is no public school that meets the needs of my child with disability</i>	7	5
<i>Total</i>	100	100

Also, the perception about parents investing in education, table 3, indicate that 98% of the parents held the view that they were making an investment for the future compared to 82.9% at the baseline survey, while as fewer as 2 % of the parents were of the opinion that they were wasting family resources and it was not worth the investment compared to 3.6% at the baseline

survey. There were no parents with opinions as to whether they should buy animals instead of wasting money with school or they should send children to Islamic Duksi schools instead.

**Table 3: Perceptions about parents investing in education**

<i>Perception about taking children to school</i>	<i>Percent (%)</i>
<i>They might be wasting family resources thus not worth the investment</i>	2
<i>They are making an investment for the future</i>	98
<i>Total</i>	100

The survey found that the main family sources of water were from water vendors at 48% followed by tap water at 41% and rain water harvesting at 11% while none was from river sources. The baseline survey indicates that the main sources of water were from water vendors at 45.6%, rain water harvesting at 39.9% and 13.3% used tap water. There was an increase in use of water vendors and a sharp drop in water harvesting use and a marked increase in tap water use.

Table 4 provide the level of community awareness regarding sustainable alternative energy sources based on the survey undertaken indicate that relative awareness for solar lighting was highest at 50% while water harvesting awareness at 14% was lowest on the other hand use of the technologies had water harvesting showing highest use at 32% followed by solar lighting at 30% and energy saving stoves at 20%. The baseline survey indicates 5.1% had ever used energy saving stoves and 15.4% had ever used water harvesting technologies.

**Table 4: Community awareness and use of sustainable alternatives**

<i>Awareness of sustainable alternatives</i>	<i>Ever heard (%)</i>	<i>Ever used (%)</i>
<i>Solar lighting</i>	50	30
<i>Energy saving stoves/lighting</i>	16	20
<i>Water harvesting</i>	14	32
<i>Clay Pot irrigation</i>	18	18
<i>Total</i>	100	100

## 3.3 RELEVANCE AND APPROPRIATENESS

The overall objectives of the project were to improve enrolment and retention in primary schools through climate change adaptation and mitigation. This was intended to be achieved through installation of solar systems in schools, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, construction and provision of WASH facilities, improving environmental awareness and distribution of sanitary towels.

The overall project purpose and the key intervention activities are in line with the school and community priorities, and both the county and central government's policies and strategies. In particular, the Wajir County First Integrated Development Plan (2013-2017) seeks to manage and lessen the impacts of climate change and calls for efforts towards adoption of renewable alternative sources of energy, afforestation, reforestation and proper environmental management and includes participatory approaches. In addition to that, the county government also acknowledges that improvement in infrastructure facilities in schools and the creation of a favourable environment for learning would contribute to its vision and mission.

Community perceptions about education includes availability of spacious classroom, proximity to home, reliable water supply, school feeding program, lighting in dormitories, and sufficient number of toilets, school fencing/security, textbooks and other amenities are important factors to the beneficiaries.

---

### 3.3.1 Impact of Rocket Stove

In all the schools, the main source of lighting were solar PEV system although in a number regions like Wajir West and Wajir East electricity is available for some schools and natural lighting is only useful during the day and translucent roofing is also available for some schools, but the most important cost effective source of lighting for the schools as indicated in the discussions with the stakeholders is the solar system of lighting, especially the PEV type, which the project installed in a number of schools.

Installation of solar lighting in schools was an objective intended to provide additional time for school going children to study and improve not only their performance and future opportunities, but also enhance the overall performance of Wajir County, which has been dismal in the past years. This intervention therefore was highly relevant in the perspective of the local communities and from the standpoint of the, head teachers, teachers and school going children it expanded the time available for extra coaching and for those students wanting to have preps. Nevertheless, not all the schools, especially those that have boarding facilities had solar lighting installed or any other form of night lighting. There is still greater need for such facilities.

The aim of constructing institution energy stoves was to mitigate the rate of firewood consumption and to decelerate climate change causes in the region, and to improve the provision of meals of children while in school. As indicated in the focus group discussions, the activities of fetching firewood were consuming more time as nearby sources get depleted, and even the use of vendors was becoming increasingly costly, but with the construction of energy efficient stoves in some of the schools, as identified through the checklist, tremendous gains have been realized in terms of cost savings for schools. The indicative cost savings per term to school activity budgets, which had been redeployed to other school resources, and as a result of rocket stoves were up to 50% while 53% was the estimated amount saved on fuel wood per school on account of the rocket stove. Cooks interviewed indicated improved operations in the kitchen, less smoke and more energy per kg of firewood equivalent to Kenya shillings 1000 per cartload of firewood on average. Significant quality of food has also been noted by children interviewed. Before the construction of institutional energy stoves cooking used to take a lot of time and cost a lot of money for the schools, and was also a frustrating affair for both the cooks and the head teachers in some schools. The introduction of institutional energy stoves has alleviated to a large extent some of the school problems that were consuming, unnecessarily, the aggregate time of the school stakeholders, and mitigated causes of climate change.

---

### 3.3.2 Schools Creating Demand for Climate Friendly Growth

Schools played a central role as the focal points of community development activities, and therefore respondents indicated that the project design and implementation met the needs and

priorities of majority of them. The communities have generally been at the core of establishment and management of the beneficiary schools, and therefore projects that target schools show ripple effects among the surrounding communities. Although most of the community members have low educational attainment, they nonetheless have very high interest in the education of their children and the school development.

A number of artisans have been trained and equipped with the necessary skills to build the rocket stoves themselves and to assist others who are interested in acquiring the equipment do so, as such they have become facilitators agents of increased uptake of the energy efficient rocket stoves among the community members. Through women's and youth group's tree nurseries have been established by the groups and families assisted with seedlings to plant in their farms and compounds. The level of cooperation between the community and these, groups as noted, was very instrumental in ensuring the project achieved its objectives.

---

### 3.3.3 ICF Improved School Learning

Construction of climate friendly class rooms and boarding facilities were satisfactorily delivered and have had incremental benefits to the target communities and school, in Eldas, Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West. The activities are in line with the needs of the community members, in that getting children to attend school is an investment for the future where the acquired knowledge may lead to improved productivity and economic value of the pastoralist way of life. It was noted that the Climate friendly classrooms and boarding facilities also mitigated the level of heat in the rooms, improved concentration of children in class and enabled a favourable environment for the children to undertake their studies.

Thus the intervention had significant value to the schools and educational aspirations of the children and also met and supplemented the county government's policy on development of school infrastructure. More importantly expanding access and quality of facilities gave girls a better chance for enrolment, education and poverty reduction in the local communities.



---

### 3.3.4 Greening Schools

The construction and provision of WASH facilities had the objective of improving the general health of school going children. WASH facilities that were installed in schools not only benefited the school children health wise, but also saved time. The facilities also supported the surrounding communities to some extent. There was a strong attachment of the local communities to schools in their vicinity, and the community's involvement through school management committee's or other forums were highly valued by the head teachers and vice versa. This close liaison among the stakeholders enhanced the value derived from the WASH facilities constructed in schools.

The WASH facilities had positive psychological and environmental implications as well, despite some instances of water contamination being reported. Some of the benefits WASH facilities have supported include availability of water for cooking purposes and farming, both for crops and commercial trees. Some of the environments clubs are actively engage with communities in tree planting activities, overall this is a positive awareness of the importance environment plays in the life of the community.

The head teachers interviewed indicated the need for rainwater harvesting facilities to supplement borehole and vendor supplies. In some instances, latrines lacked doors, and coverage was still low in terms of water and latrines facilities, and the demand very high as noted by focus group discussions across schools in Eldas, Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West. Generally, the WASH facilities raised environmental awareness among school children, in regard to hygiene matters, and provided impetus for the local communities to develop equivalent facilities for themselves. Thus construction of WASH facilities had significant relevance for the school children, the community as well as to the local government aspirations in the sector.

---

### 3.3.5 Reduced Barriers to Education

The projective was to give school girls dignity, healthy lives and opportunity to be free to participate in the daily activities of school, in general to empower the girls with the sanitary

towels. Girls no longer feel ashamed or embarrassed and are psychologically better off than before, which is the result of distributing sanitary towels to schools in Eldas, Tarbaj, Habaswein, Wajir East, Wajir North, Wajir South and Wajir West.

Evidence shows that coverage in project schools was satisfactory although a few cases of inadequacy were mentioned. A lot of effort was nonetheless still on-going to fully meet the requirements in all the schools in a timely manner. The distribution of sanitary towels was viewed by the school girls in all the project areas as a positive improvement in their lives, and played an important role in retention of girls in schools, as opined by head teachers interviewed. The distribution of sanitary towels also fitted well with both the local and national government's policy on girl child access to education.

## 3.4 EFFECTIVENESS

The overall objectives of the project were to improve enrolment and retention in primary schools in Wajir County through climate change and adaptation sensitive approaches. To a large extent substantive improvements have been made in all the schools of the project in terms of installed solar systems, construction of institutional energy efficient stoves, construction of climate friendly classrooms, construction and provision of WASH facilities, distribution of sanitary towels and environmental awareness. The project objectives were adequately achieved and planned activities implemented within specified period of time. The desired outcomes were realized with all the outputs.

---

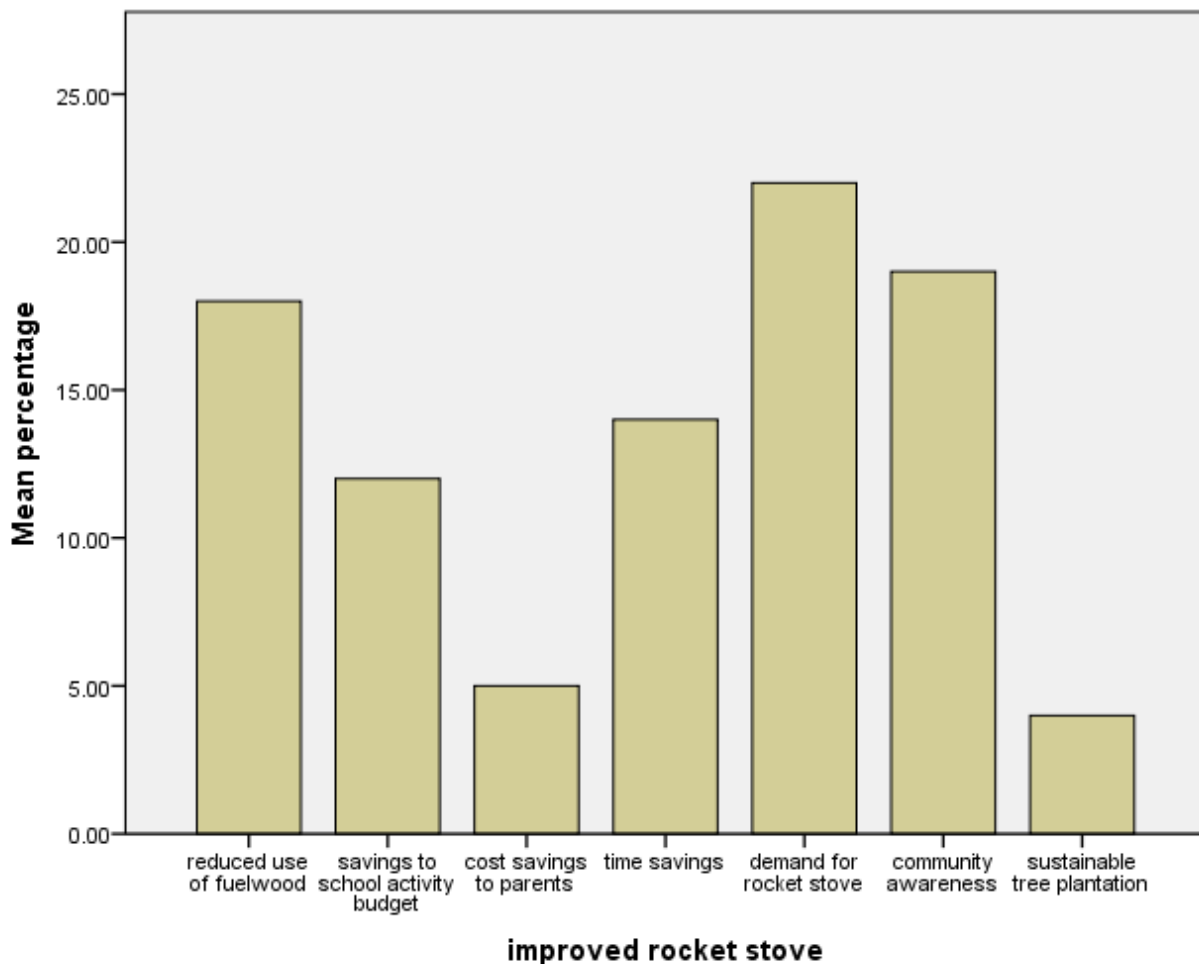
### 3.4.1 Impact of Rocket Stove

A total of 16 rocket stoves were constructed in the Project schools and 16 artisans trained in rocket stove technology. The rocket stove capacities are between 150 to 600 lts. Kenya shillings 802,100 was the average expenditure before rocket stove, but after rocket stoves were introduced, the expenditure dropped to an average figure of Kenya shillings 395,100. Majority of the schools achieved on average more than 50% reduction in fuelwood consumption as well as in

the time it takes to have a meal cooked, except for Volunteer Primary School, Salama Primary School, Burder Primary School and Kibilay Primary Schools.

All the schools that had rocket stoves indicated substantial savings in their operations. Cost savings were used to repair and purchase detergents to clean the kitchen, to pay the PTA teachers, paying the school cook and other support staff, buying trees for the nurseries, buying uniforms for the needy pupils, buying water and general maintenance of school infrastructure and utilities. Challenges of local production of the improved stoves were cited as unavailability and high cost of transportation of the materials, however opportunities for collaboration with Clay Works was cited as a possibility. Potential for establishment of a savings and credit scheme by youths and women groups was also noted as an approach that can increase accessibility of the stoves to the domestic, of interest is the ALDEF supported women group.

**Figure 3 Impact of Rocket Stove**



There were indications that demand for the stoves from the local community was notably created as a result of the demonstration undertaken by the project, mostly through parents' day meetings and school cleaning days, people also regularly visited the schools to see the technology and indicated their interest for them as well, although others found the Kes 4000 price beyond their reach. Demand for the stoves was also expressed by schools that were not supplied by the project. Generally, members of the public, WFP, UNICEF, MOE officials, TSC Staff, DEOs all had paid a visit to some of the schools to see the stoves. A local branch of ISAK was yet to be formed by the project beneficiaries, but talks had been opened with the representatives of the organization.

*"Now I have more time to attend to my domestic issues and do clean up in good time and the student don't get late for their classes after meals"*

Figure 3 represents a five point likert scale rating criteria on attitudinal responses in terms of reduced use of fuelwood, savings to school activity budgets, cost savings to parents, time savings, demand for rocket stoves, community awareness and sustainable tree plantation, in which levels of responses were calculated using the formula: highest score-lowest score/total rating level, as a result reduced use of fuelwood had 0.18, savings to school activity budgets had 0.12, cost savings to parents had 0.05, time savings had 0.12, demand for rocket stoves had 0.22, community awareness had 0.19 and sustainable tree plantation had 0.04.

Figure 3 is the indicative percentages in which 18% of the respondents indicated reduced use of fuel wood while 12% Savings to school's activity budget, The demand for rocket stoves was at 22% where as 19% of the respondents informed community awareness and 4 % sustainable tree plantation. On the other hand 5% of the respondents indicated cost savings to parents and 12% of the respondents informed time savings. Indicatively, Hodhan, Wajir girls, ICF and Riba primary schools with installed stove capacities of 450, 600, 600 and 150 realized savings occasion by the drop in average expenditure on fuelwood by Kshs 3200, 2166, 1680 and 678 respectively. Wagala, Elnur, Shantabaq, Jowhar, Dasheg, Eldas, Jogbarow and Hadado primary schools realized savings to the tune of Kshs 3100, 2867, 3700, 2067, 2600, 3133, 2500 and 2567

respectively per term. Kibilai, Dif and Abakore primary schools also realized savings to the tune of Kshs 2123, 2221 and 4930. As a result of the savings associated with installed stoves, other benefits linked to it included reduced use of firewood and time savings for children who otherwise would have spent more time in the activity both at home and school for purposes of meal preparations, school activity budget on firewood item also reduced availing more funds for activities directly associated with learning such as payment of teachers for extra time, and the cooks also had the experience of reduced time required for meal preparation.

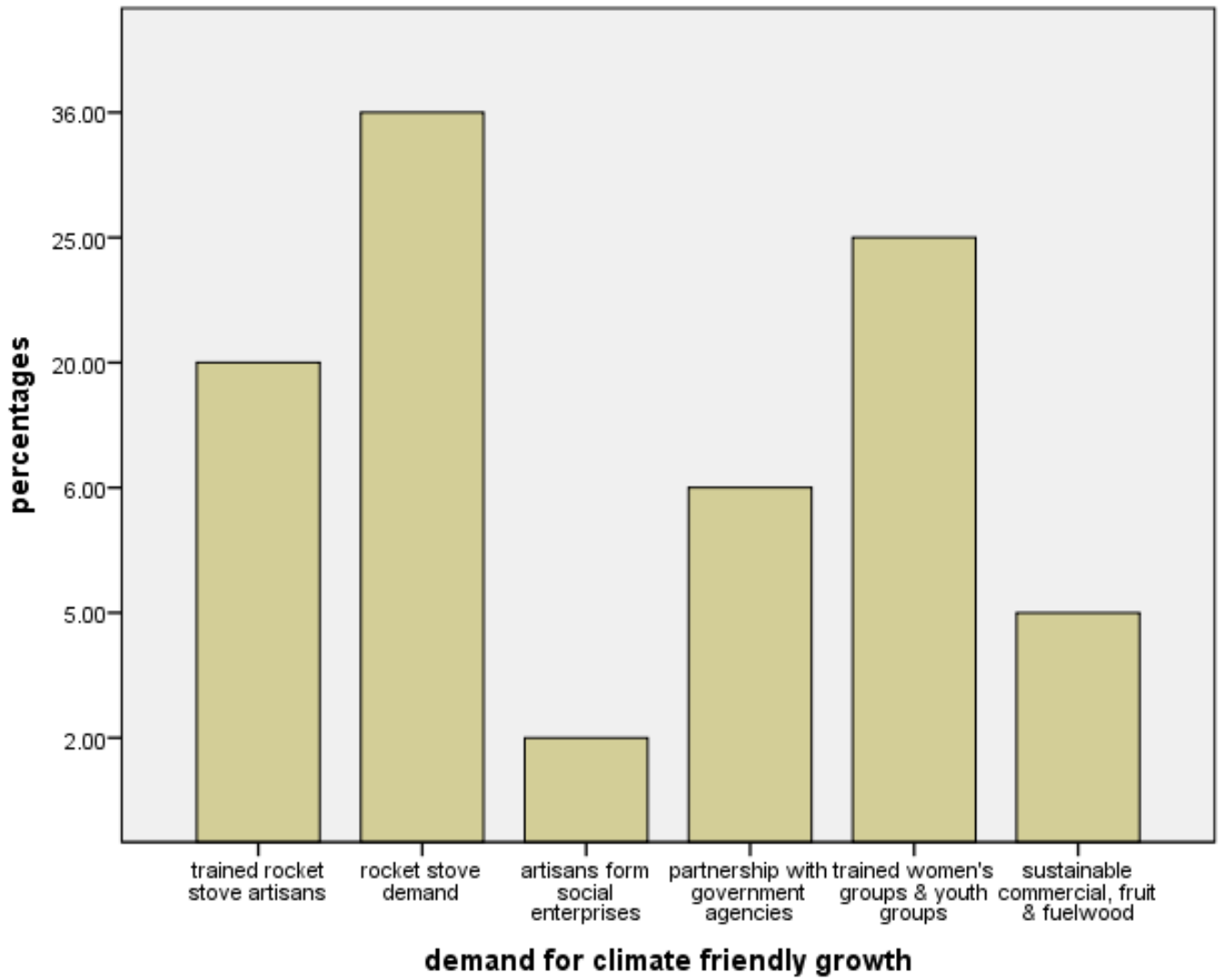
---

### 3.4.2 Schools Creating Demand for Climate Friendly Growth

As indicated by figure 4, 20% of the informants indicated training of rocket stove artisans was undertaken while the demand for rocket stoves was cited by 36% of the respondents, on the other hand 2% of the respondents indicated that artisans had formed social enterprises, however it was noted by some of them that materials were not locally available, and cost of transportation was high. There was also hopefulness that once a cooperative had been registered access to funds would be realized; respondents also suggested collaboration with Clay Works Limited in future as a way of kick starting enterprises.

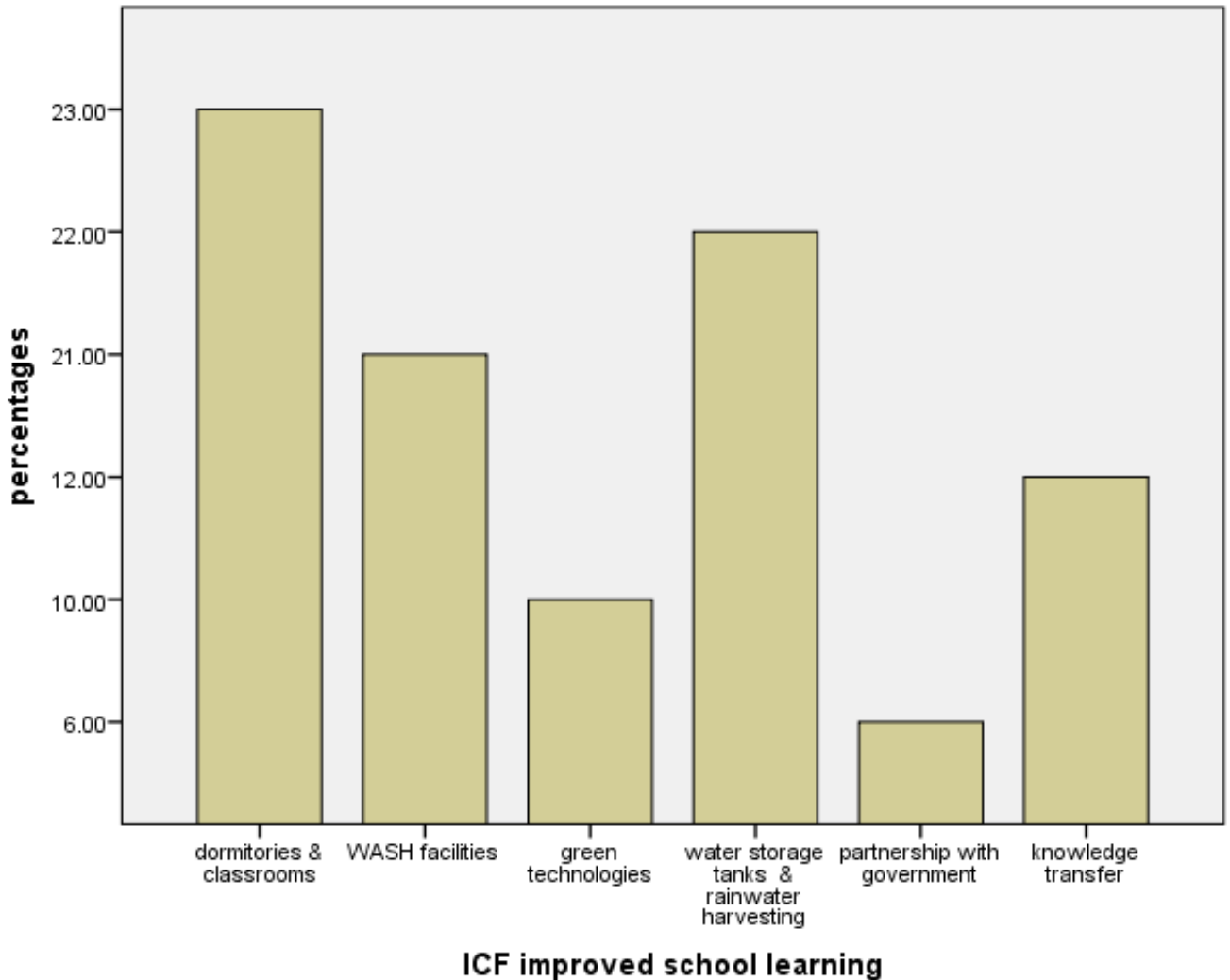
The level of partnership with government agencies as indicated by the respondents was at 6% while 25% of the respondents informed training of youth and women group had taken place. Sustainable commercial fruit and fuel wood activities were initiated, but only 5% of the respondents informed that it had taken off.

**Figure 4 Demand for Climate Friendly Growth**



### 3.4.3 ICF Improved School Learning

**Figure 5 ICF Improved School Learning environment**



Various green technologies are being used by all the project schools, and except for Gotade Primary School, I.C.F Primary School, Riba Primary School, Volunteer Primary School, Hadado Primary School, Salama Primary School, Burdher Primary School and El-adow Primary School the rest of the schools were using clay pot to grow fruits, vegetables and trees. School infrastructure works included 14 units inclusive of classrooms and dormitories while WASH facilities developed were 29 together with 40 water storage tanks. Greening technologies that the project initiated included installation of 36 units of solar panels in the schools, 40 improved energy efficient stoves in the kitchens of schools and development of knowledge transfer

channels that included 8 community awareness actions, 20 radio programs and trainings of artisans. Figure 5 reflects relative effectiveness of the interventions, where 23% of the informants viewed dormitories and classrooms interventions as effective, 21% of them, informed on WASH facilities, green technologies were cited by 10% of the respondents, which included school stakeholders basically, water storage tanks and rainwater harvesting facilities had 22% effectiveness while 6% of the respondents cited partnership with government and 12% knowledge transfer.

---

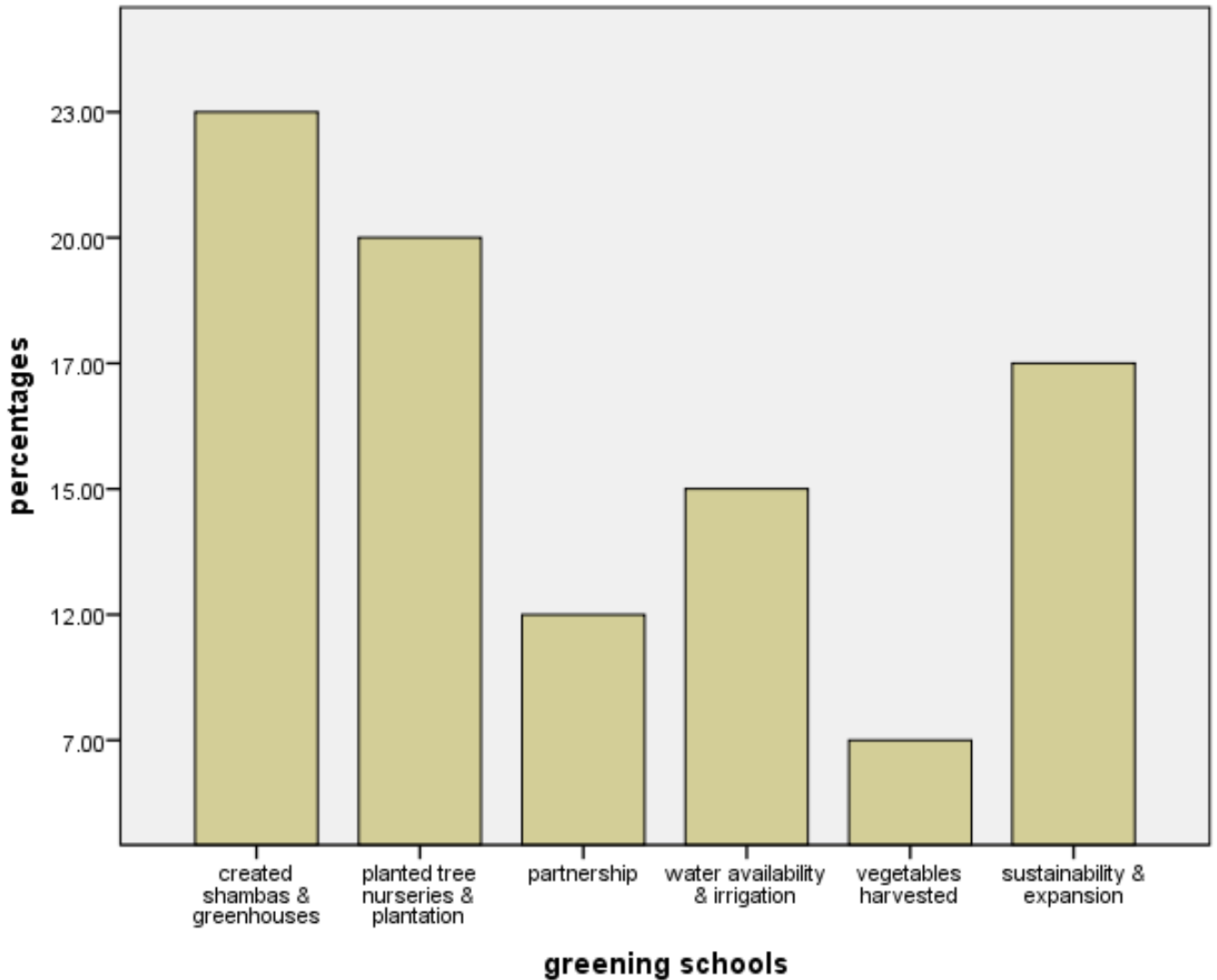
### 3.4.4 Greening Schools

Environmental clubs have created shambas in all the schools except for Gotade Primary School, I.C.F Primary School, Riba Primary School, Kibilay Primary School and Burdher Primary School, the shambas however have not been used in the feeding program so far. 6 out of the 20 schools have fruit trees, commercial trees are grown by 7 schools, pawpaw, lemon, guava, oranges and lemons are some of the fruits trees planted by the environmental clubs. Ministry of Agriculture and forest department has provided support to Hodhan Primary School, the Ministry of Agriculture also provided 60 pvc pipes for drip irrigation to Wajir Girls Primary School. El-Adow Primary School also indicated receiving support from sub county agriculture officers.

The kind of support that Schools indicated as important for them were to have a viable tree and vegetable shambas, and the respondents also cited need of pesticides, fertilizers, generator, more trees, farm tools, tree boosters, spraying cans and capacity building, water connection, fencing, constant water connection and more funds to buy more farm tool.



**Figure6 Greening Schools**



As indicated by figure 6, 23% of the respondents informed that shambas or greenhouses had been created and that 20% of them informed tree nurseries had been created while 12% of the respondents indicated partnerships had been created in the implementation of greening schools program. 15% of the respondents cited availability of water for the activities of greening the schools, and 7% of the respondents indicated vegetables had been harvested from the greening schools shambas while 17% cited potential for sustainability and expansion.

---

### 3.4.5 Reduced Barriers to Education

The distribution of sanitary towels had the objective of addressing costs to the school girls, associated with access to sanitary towel, absenteeism where girls stay at home rather than attending school, unhygienic ways, embarrassment and low self-esteem. These aims have all been successfully achieved by the project.

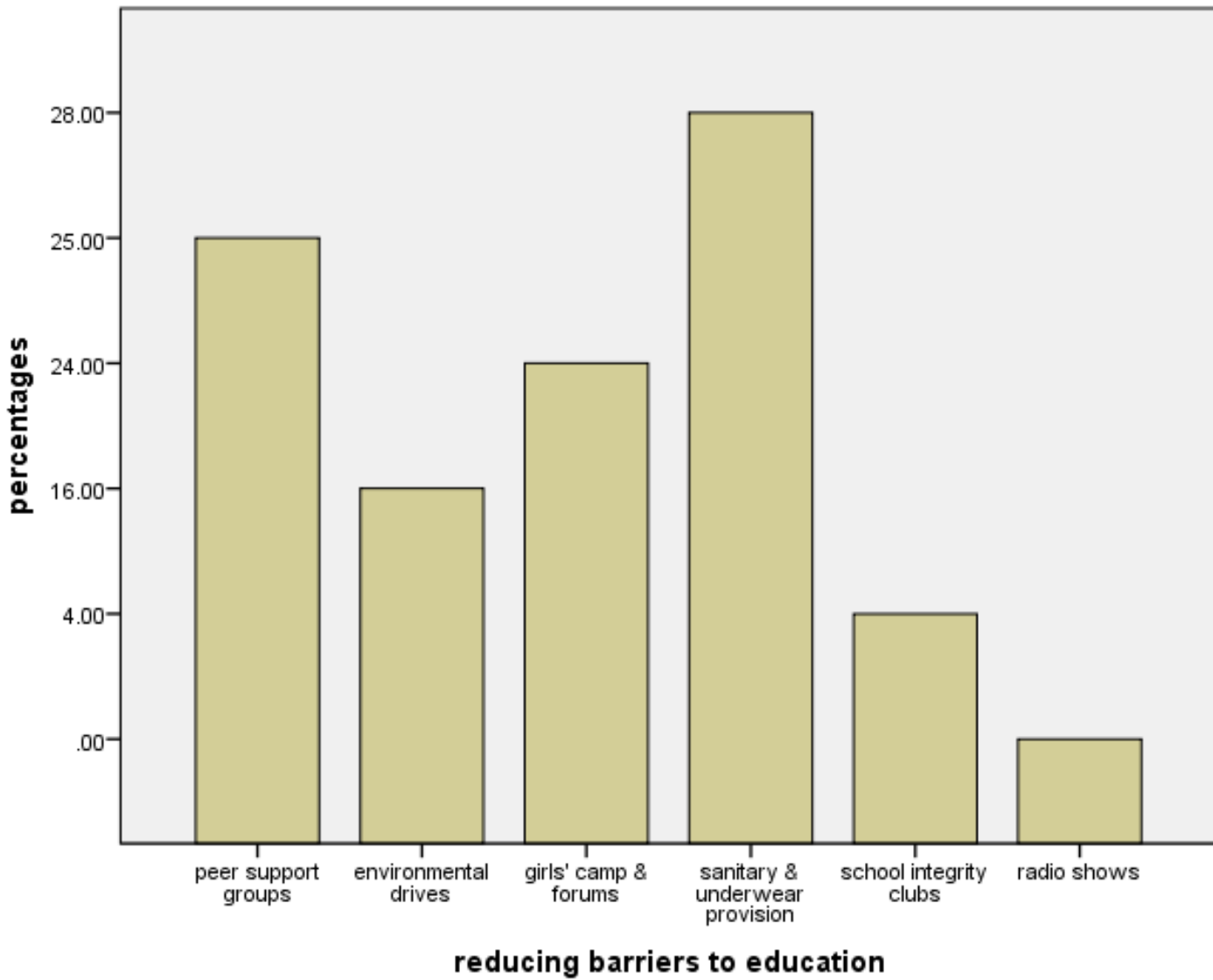
714 girls benefited from sanitary pads, where 2 packs were issued to the girls per month. The girls' camps were initiated at most of the project schools except for Buna Primary School, Kutulo Primary School, Eldas Primary School and Leheley Primary. A total of 260 girls participated in the activities, which included instructions on academic performance, change of carrier choice, and about being responsible as well as improvement of self-esteem. The camps were also supposed to advise the girls on the negative impact of early marriages. The girls interviewed indicated socialising with girls from different schools and exchanging ideas as well as increased motivation to learn and perform better in the exams as important outcomes for their participation in the camps.

Figure 7 indicates 25% realization of peer support groups and enrolment drives cited by 16% of the respondent's while 24% of the respondents cited activities of girls' camps and forum. 28% of the respondents indicated sanitary and underwear provision had largely been met, although 4% of the respondents indicated subdued activities on the part of the school integrity club while radio shows elicited lack of activity at all.

Generally, coverage met the needs that the project intended to achieve, and the collaborative effort put on ensuring that all the school-going girl child access sanitary towels included broad coalition of both local and international NGO's as well as the local and national governments. Although provision of sanitary towels is an on-going activity, on the part of the project the objectives were successfully met. On the question of whether classrooms had sufficient lighting, 58% of the respondents were affirmative while 42% had an opposing view on classing lighting sufficiency. WASH coverage had 61% of the respondents indicating agreement on availability of water in the schools while 39% were of an opposite opinion. On the question of water

sufficiency, 35% of the respondents indicated sufficiency of water in schools while 65% indicated insufficiency. On whether schools have latrines, 88% indicated they had while 12% were of the opposite view.

**Figure 7 Reducing Barriers to Education**



### 3.5 LINKAGES TO LONG-TERM NEEDS OF BENEFICIARIES

The long-term needs of the beneficiaries as generated through interview and focus group discussions were identified as availability of spacious classrooms, school feeding program, lighting in school, sufficient number of toilets and availability of water, and the overall project objectives fit with these concerns voiced by the community either directly or indirectly. Furthermore, the key intervention activities are in line with not only the community priorities, but also schools' priorities as voiced by the head teachers themselves. Additionally, the project is in line with county and central government's policies and strategies.

The project worked collaboratively with the beneficiaries, and the management of project activities included documentation and filing of information regarding progress on project implementation by the head teachers of schools in which the projects were being done. The project also supported establishment of environmental clubs as stewards of the climate change adaptation sensitive approaches. The project also set up robust communication channels based on long term relationship with not only the head teachers, but also with the school board of governors.

More importantly the need for project deliverables, which included installation of solar systems in schools, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, construction and provision of WASH facilities, distribution of sanitary towels are still not fully met due to resource constraint. Nonetheless the beneficiaries have been trained on appropriate use and maintenance of project deliverables. The achievement of the project will however have to be leveraged and maintained through greater involvement of all the stakeholders and optimization of limited resources to address inherent inadequacies.

The project staff also had relevant educational qualification mixed with local experience of the social dynamics of the project sites to make an informed analysis of the community desires and lead the community to choose their own development priorities and to have them participate in tracking their own goals over time. The project in particular had beneficial effect on the local

primary school going children, the community, and tremendously supplemented county and national governments goals.

### 3.6 GEOGRAPHIC COVERAGE

The project coverage included the sub counties of Eldas, Habaswein, Tarbaj, Wajir East, Wajir North, Wajir South and Wajir West. 100 schools were meant to benefit from the activities implemented, and the distributions of benefits were made in line with equitable approaches and principles for which the project holders stand for. In terms of need all these areas that were focused on, including the target beneficiaries, share, more or less, the same challenges, and it is, based on the information gathered, prudent to have the presence of a project in a wider catchment, which may result in broader awareness and ripple effect. Overall, the project coverage supported the overall project objectives.

The evaluation teams in particular visited the 100 schools spread throughout the sub-counties and collected information from the schools and surrounding communities, and checklists confirm the interventions proposed by the project. The project in particular increased accessibility, retention, attendance and completion in the targeted schools

### 3.7 COORDINATION

The design of the project included a multi-pronged approach in which project funds were disbursed to different actors to undertake particular activities. The actors included operations of the Kenya Essential Education Program (KEEP), Rural Agency for Community Development and Assistance (RACIDA), Arid Lands Development Focus-Kenya (ALDEF Kenya), Wajir South Development Agency (WASDA), the National Government and the County Government through various ministries and departments as well as the community and head teachers of schools. The success of the project therefore depended on seamless coordination of human capital, equipment, materials and logistics. These were achieved through inclusivity and complementarity, project level planning and communication, timeliness, decentralized management and effective decision making structures.

## 3.8 TARGETING

The overall project objectives were to improve enrolment and retention in primary schools through climate change adaptation and mitigation. Therefore, the plan targeted 100 primary schools drawn from Eldas, Habaswein, Tarbaj, Wajir East, Wajir North, Wajir South and Wajir West. The intended outcomes were increase enrolment, retention, attendance and completion of primary school education and increase climate change adaptations and mitigations. The interventions needed to achieve the desired outcomes included installation of solar systems in schools, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, and distribution of sanitary towels.

Specifically, the project intended to reach needy schools, learners and the marginalized through screening. There are 203 ECD Centre's with a total estimated enrolment of 20,000, and 203 primary schools with 59,065 enrolment figure that includes 35, 928 boys and 23,137 girls. The project targeted 100 schools that were the neediest, and that included 20 schools in Wajir East 9 schools in Wajir South, 20 schools in Wajir West, 8 schools in Habaswein, 16 schools in Tarbaj, and 12 schools in Wajir North.

Noting that the project resources could not support all the schools equally, delineation based on recipients of classrooms, boarding facilities, water and sanitation facilities had to be matched with criticality of the need thereby making it possible for the project to have maximum impact. The project benefited a total of 55,877 learners, of which ALDEF supported activities benefited 16,168 children, RACIDA supported activities benefited 33,982 children and WASDA supported activities 5,727 children, and more importantly creating an enabling environment for girl's enrolment, retention and attendance of school. The project also identified categories of special needs affecting school going children for special dedication of project deliverables.

## 3.9 TRANSPARENCY AND ACCOUNTABILITY

The implemented project had the full awareness of all the stakeholders including county and national government line officers, local leaders and religious leaders. At the local level, the

investment works were coordinated by the head teachers of the beneficiary schools who kept tabs on the project inputs as well as outputs. The project also had a highly accountable and transparent information sharing mechanism that encouraged knowledge transfer to schools and local communities and vice versa. All the planning, performance and financial status of activities were readily accessible to the beneficiaries to facilitate quality feedback and input. Beneficiaries had also been empowered to assume project accountability.

### 3.10 IMPACT

The impact of the project is dependent on the activities undertaken and outcomes achieved, sustainability measures and compliance to changed practices and leveraging linkages developed with partners such as county government and national government line departments have a measure of impact on the socio-economic, political, and ecological conditions of not only the communities, but also on the performance of the school pupils.

**Table 5. SCHOOL ENROLMENT INFORMATION (YEAR 2015)**

CLASS	PUPILS	REGION							TOTAL
		ELDAS	HABAS-WEIN	TARBAJ	WAJIR EAST	WAJIR NORTH	WAJIR SOUTH	WAJIR WEST	
<b>ECD</b>	boys	260	194	675	1696	320	160	851	<b>4156</b>
	girls	154	133	628	1423	221	113	889	<b>3561</b>
<b>Class 1</b>	boys	354	383	487	1101	384	403	765	<b>3877</b>
	girls	258	261	453	942	283	365	607	<b>3169</b>
<b>Class 2</b>	boys	326	366	487	954	350	298	702	<b>3613</b>
	girls	121	168	244	745	160	88	523	<b>2049</b>
<b>Class 3</b>	boys	317	297	403	882	316	206	629	<b>3050</b>
	girls	115	134	251	680	175	76	510	<b>1941</b>
<b>Class 4</b>	boys	239	199	373	884	229	178	497	<b>2599</b>
	girls	104	152	231	633	178	51	378	<b>1727</b>
<b>Class 5</b>	boys	209	172	371	947	244	157	539	<b>2639</b>

	girls	96	164	228	562	159	37	377	<b>1623</b>
<b>Class 6</b>	boys	181	174	323	796	219	154	445	<b>2292</b>
	girls	86	150	157	568	169	36	347	<b>1513</b>
<b>Class 7</b>	boys	126	188	302	632	233	151	415	<b>2047</b>
	girls	59	113	123	507	169	20	295	<b>1282</b>
<b>Class 8</b>	boys	115	169	260	588	232	148	402	<b>1914</b>
	girls	54	96	108	415	139	20	257	<b>1089</b>

**Table 6. SCHOOL ENROLMENT INFORMATION ( YEAR 2016)**

CLASS	PUPILS	REGIONS							TOTAL
		ELDAS	HABASWEIN	TARBAJ	WAJIR EAST	WAJIR NORTH	WAJIR SOUTH	WAJIR WEST	
<b>ECD</b>	boys	443	453	865	2122	492	430	1043	<b>5848</b>
	girls	353	388	649	1890	433	346	1131	<b>5190</b>
<b>Class 1</b>	boys	663	587	827	1459	658	591	1024	<b>5809</b>
	girls	365	341	505	1116	378	375	875	<b>3955</b>
<b>Class 2</b>	boys	667	573	798	1379	603	596	899	<b>5515</b>
	girls	347	349	423	818	355	348	719	<b>3359</b>
<b>Class 3</b>	boys	507	571	593	1118	523	390	715	<b>4417</b>
	girls	335	320	355	704	344	251	542	<b>2851</b>
<b>Class 4</b>	boys	427	381	493	1015	303	258	614	<b>3491</b>
	girls	225	226	372	658	327	224	457	<b>2489</b>
<b>Class 5</b>	boys	319	289	378	898	203	259	497	<b>2843</b>
	girls	226	223	320	581	251	200	365	<b>2166</b>
<b>Class 6</b>	boys	230	289	366	913	193	210	545	<b>2746</b>
	girls	208	232	309	563	157	184	355	<b>2008</b>
<b>Class 7</b>	boys	201	277	338	870	185	222	552	<b>2645</b>
	girls	132	155	157	539	128	85	329	<b>1525</b>
<b>Class 8</b>	boys	239	267	299	297	188	220	529	<b>2039</b>
	girls	67	102	102	420	134	62	286	<b>1173</b>



**Table 7. Average Annual Enrolment per School**

<i>Pupils</i>	<i>Average Annual Enrolment per School</i>				
	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016
<i>Boys</i>	184	200	287	252	277
<i>Girls</i>	166	164	253	191	214
<i>Total</i>	<b>350</b>	<b>364</b>	<b>540</b>	<b>443</b>	<b>491</b>

**Figure 8 Average Annual Enrolment Per School**

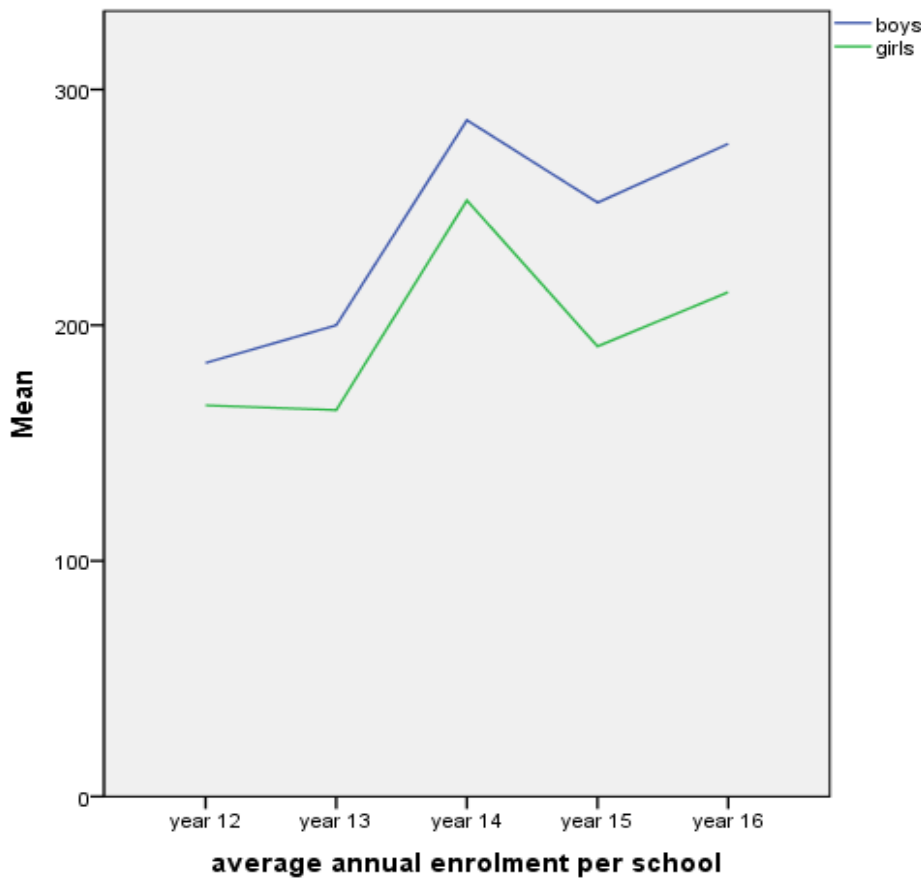


Table 5,6,7, 8 and figure 8 indicates the average annual enrolment rate per school, and other data concerning enrolment in the schools, table 8 in particular indicates the full enrolment figures for the school evaluated. Average enrolment figures show that the highest enrolment for boys was realized in the year 2014 at 287 in number, while the lowest enrolment for boys was in the year

2012 at 184. On the other hand, average enrolment of girls indicate that the highest number was similarly in the year 2014 at 253 while the lowest number was in the year 2013 at 164.

The trends for both boys and girls follow a similar pattern, although in all instances average enrolment of boys over the period of interest were higher than that of girls. The period between 2014 and 2015 signifies the trend as captured by the baseline survey while the year 2016 indicates the end-line evaluation figures, and evidently enrolment improved from the baseline figure of 252 in 2015 to the end-line figure of 277 for boys while for girls it improved from 191 to 214.

**Table 8. Enrollment as at March 2016**

<i>School</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
<i>Wajir primary school</i>	637	352	989
<i>Wajir girls primary school</i>		874	874
<i>ICF Primary School</i>	1708	1230	2938
<i>Got-Ade Primary School</i>	570	454	1111
<i>Makoror Primary School</i>	508	515	1023
<i>Barwaqo Primary School</i>		508	508
<i>Kallacha Primary School</i>	870	645	1515
<i>Township primary school</i>	530	320	850
<i>Shalete Primary school</i>	360	100	460
<i>Catholic primary school</i>	559	477	1036
<i>Volunteer primary school</i>	426	457	883
<i>Halane primary school</i>	358	229	587
<i>Arbaqeramsa primary school</i>	303	147	450
<i>Riba primary school</i>	291	185	476
<i>Wajirbor primary school</i>	189	163	352
<i>Khorfharar primary</i>	378	240	618

<i>school</i>			
<i>Hodhan primary school</i>	367	302	669
<i>Argane primary school</i>	175	118	293
<i>Abakore primary school</i>	280	220	500
<i>Meri primary school</i>	211	187	398
<i>Machesa primary school</i>	138	89	227
<i>Burder primary school</i>	152	103	255
<i>Salama primary school</i>	132	76	208
<i>Diif primary school</i>	326	170	496
<i>Dadajbulla primary school</i>	323	142	465
<i>Sarif primary school</i>	285	151	436
<i>Sabuli primary school</i>	282	208	490
<i>Eladow primary school</i>	168	120	288
<i>Kibilai primary school</i>	0	220	220
<i>Karu primary school</i>	158	87	245
<i>Bron primary school</i>	63	35	98
<i>Kursi primary school</i>	283	148	431
<i>Leheley primary school</i>	242	127	369
<i>Hubsoi primary school</i>	132	98	230
<i>Welari primary school</i>	96	50	146
<i>Ganyure primary school</i>	207	154	361
<i>Elnur primary school</i>	328	115	443
<i>Jowhar primary school</i>	243	145	388
<i>Lafaley primary school</i>	203	1511	354
<i>Tarbaj primary school</i>	344	212	556
<i>Lambib primary school</i>	187	122	309

<i>school</i>			
<i>Elben primary school</i>	251	165	416
<i>Wagberi primary school</i>	358	302	660
<i>AMA primary school</i>	613	319	932
<i>Jogbarow primary school</i>	424	456	880
<i>Hudule primary school</i>	410	279	689
<i>Wagala primary school</i>	412	246	658
<i>Elmi primary school</i>	264	177	441
<i>Maadathe primary school</i>	225	127	352
<i>Godoma NEP primary school</i>	208	106	314
<i>Kutulo primary school</i>	455	300	755
<i>Mansa primary school</i>	266	150	416
<i>Ogarale primary school</i>	160	58	218
<i>Duntow primary school</i>	123	66	189
<i>Sarman primary school</i>	204	126	330
<i>Jajai primary school</i>	71	35	106
<i>Dambas primary school</i>	252	193	445
<i>Hargal primary school</i>	82	45	127
<i>Wargadud primary school</i>	193	137	330
<i>Dasheeg primary school</i>	236	71	307
<i>Kajaja I primary school</i>	240	109	49
<i>Kajaja II primary school</i>	206	113	319
<i>Boji primary school</i>	282	175	457
<i>Lagbogol primary school</i>	468	291	759
<i>Ademasajida primary school</i>	344	272	616
<i>Waso girls primary school</i>	0	270	270

<i>school</i>			
<i>L.M.D primary school</i>	76	92	168
<i>Lol-kuta south primary school</i>	167	133	300
<i>Lol-kuta north primary school</i>	223	69	292
<i>Hadado primary school</i>	495	368	863
<i>Adhibohol primary school</i>	407	231	638
<i>Garsedkoftu primary school</i>	375	156	531
<i>Arbajahan primary school</i>	430	250	680
<i>Barmish primary school</i>	288	142	430
<i>Shantabag primary school</i>	329	208	537
<i>Boa primary school</i>	207	117	324
<i>Griftu primary school</i>	473	249	722
<i>Hon Khalif girls primary school</i>	0	300	300
<i>Matho primary school</i>	187	108	295
<i>Wabery girls primary school</i>	0	300	300
<i>Tulatula primary school</i>	330	194	524
<i>Abdiwako primary school</i>	292	122	414
<i>Kikiley primary school</i>	164	74	238
<i>Eldas primary school</i>	474	298	772
<i>Wargadud primary school</i>	215	115	330
<i>Anole primary school</i>	265	89	354
<i>Jukala primary school</i>	200	65	265
<i>Dela primary school</i>	330	127	457
<i>Balatul Amin primary school</i>	297	59	356
<i>Korondille primary school</i>	299	164	463

<i>Malkagufu primary school</i>	166	135	301
<i>Fullo primary school</i>	141	98	239
<i>Buna primary school</i>	250	173	423
<i>Funanbua primary school</i>	147	201	348
<i>Beramo primary school</i>	152	79	231
<i>Bute Aridzone primary school</i>	488	329	817
<i>Malaba primary school</i>	271	246	517
<i>Adadijole primary school</i>	130	65	195
<i>Gurar primary school</i>	180	168	348
<i>Qarsaabula primary school</i>	128	64	192
<i>Danaba primary school</i>	459	268	727
<i>Qanjara primary school</i>	137	113	250
<i>Handaraka primary school</i>	139	84	223
<i>Catholic primary school</i>	559	447	1006
<i>Forest primary school</i>	117	70	187
<i>Rabsu primary school</i>	162	84	246
<i>Milsaded primary school</i>	267	73	340

Table 9 and figure 9 shows the average monthly school attendance. Table 9 in particular indicates the baseline data in which attendance for boys was at 87% and girls at 79% while overall monthly attendance stood at 80 %. At end-line, average monthly attendance for boys was 63% and that for girls was 61% while overall attendance stood at 63%. Indicatively, attendance seem decrease when the baseline and end-line values are compared.

**Table 9. Average Monthly Attendance Rate**

<i>Pupils Enrolled</i>	<i>Average Monthly Attendance</i>		
	<b>Boys (%)</b>	<b>Girls (%)</b>	<b>Overall (%)</b>
<b>Baseline</b>	87	79	80
<b>End-line</b>	63	61	63

**Figure 9 Average Monthly Attendance**

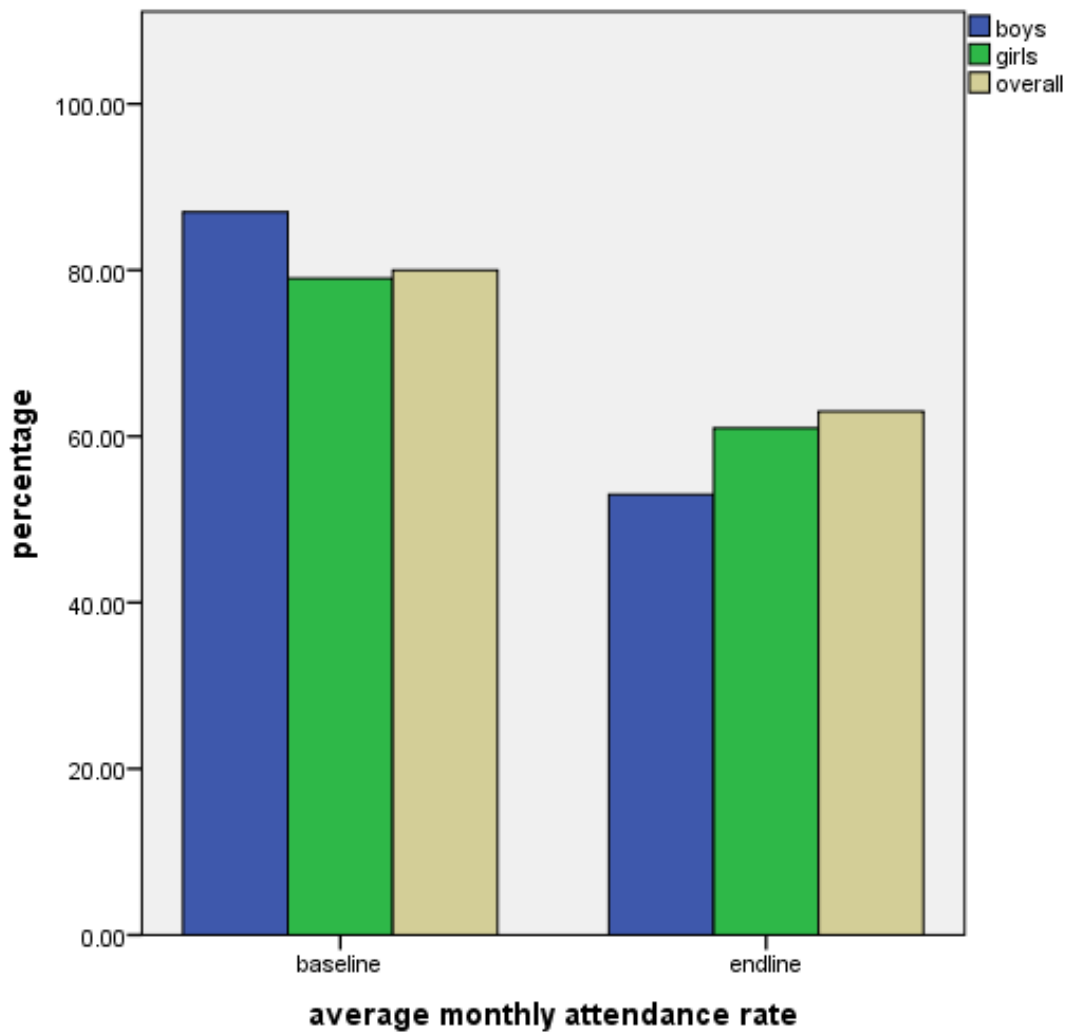


Table 10 provides the full data for change in overall attendance for various schools that were sampled.

**Table 10. Change in Overall Attendance**

<i>School</i>	<i>Baseline</i>			<i>End line</i>		
	Boys (%)	Girls (%)	Average (%)	Boys (%)	Girls (%)	Average (%)
<i>wagala primary school</i>	78	76	84	84	81	83
<i>Elnur girls primary school</i>	90	81	86	77	84	81
<i>Shantabaq Primary School</i>	92	88	90	83	87	85
<i>Jowhar Primary School</i>	86	80	83	85	83	84
<i>Dasheg Primary School</i>	90	77	84	87	81	84
<i>EldasPrimary School</i>	82	69	76	87	75	81
<i>Jogbarow Primary School</i>	90	86	88	93	85	89
<i>Hadado primary school</i>	87	82	85	92	84	88
<i>Hodhan primary school</i>	96	98	97	58	58	58
<i>Wajir girls primary school</i>	0	70	35	34	57	46
<i>ICF primary school</i>	96	94	95	59	58	58
<i>Riba primary school</i>	67	45	56	50	56	53
<i>Leheley primary school</i>	0	0	0	33	33	33
<i>Kibilai primary school</i>	0	0	0	34	34	34
<i>Diff primary school</i>	0	0	0	35	35	35
<i>Abakore primary school</i>	0	0	0	36	36	36
<i>hubsoi primary school</i>	0	0	0	37	37	37



**Table 11. Drop-out Rate**

<i>Pupils</i>	<i>Drop-out Rate</i>				
	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016
<i>Boys</i>	0.58	0.45	3.38	1.35	0.12
<i>Girls</i>	0.68	0.75	3.28	1.55	0.14
<i>Total</i>	1.26	1.20	6.66	2.90	0.26

**Figure 10 Average Annual Drop- out Rate per School**

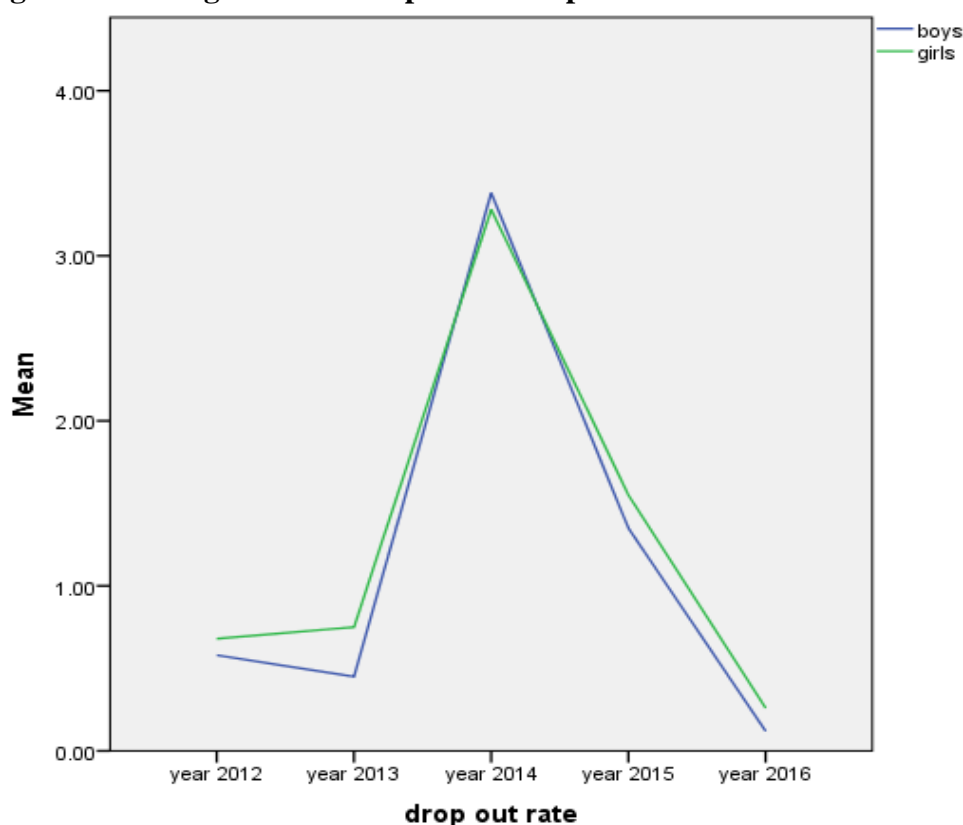
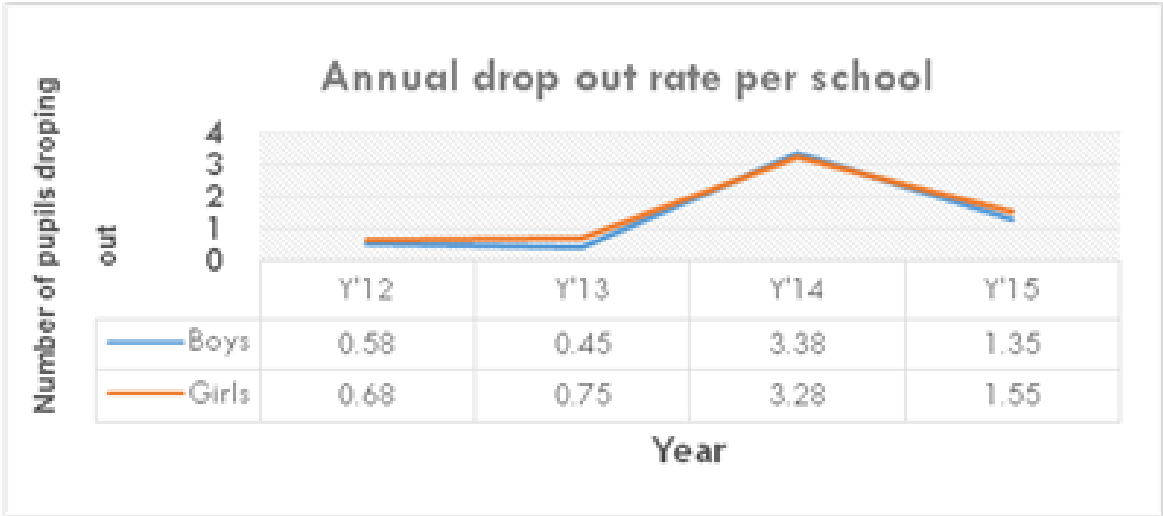


Table 11 and figure 10 indicates the drop-out rate. The data shows drop-out rate levelling between the years 2012 and 2013 at 0.58 and 0.45 for boys and 0.68 and 0.75 for girls, thereafter spiking in the year 2014 to a high of 3.38 for boys and 3.28 for girls followed by a steep decline between the years 2015 and 2016 where the drop-out rate for boys and girls were 1.35 and 0.12 and 1.55 and 0.14 respectively in those years.

Generally, the drop-out rate over the project period indicate significant decline by the year 2016, which may be explained by aggregate project outputs that motivated the children to sustain high attendance rates, and more importantly the improved and intensified school feeding programs could also have contributed to decreased drop-out rate as well as WASH facilities and ICF facilities. Interaction with the community at large and the community participatory nature of the project could also have provided an avenue for sensitization of the community on the value of taking their children to school, especially girls who normally would be given less consideration on schooling activities.

**Table 12. Baseline Annual Drop-out Rate per School**



A comparative analysis is provided using Table 12, which indicates the baseline survey graph of the drop-out rate in which, as evident, there is a sudden increase in the drop-out rate in the year 2014 from a 2012 and 2013 more level trend, and a decline in 2015. The sudden drop out rate is explained by periodic situations, activities or campaigns that may have been occasioned by back and forth movement of students, or some other factors such as outbreak of diseases such as cholera or typhoid, which are common in the region (more importantly the sharp drop may not be as it seems, and can be accounted for by the constricted x-axis of the graph, which when compared to the more stretched baseline annual drop-out rate per school graph, a different perception may arise).

**Table 13. Average Annual Transition per School**

<i>Pupils enrolled</i>	<i>Average Annual Transition per School</i>			
	<b>Year 13</b>	<b>Year 14</b>	<b>Year 15</b>	<b>Year 16</b>
<i>Boys</i>	<b>1.16</b>	<b>0.93</b>	<b>0.90</b>	<b>1.25</b>
<i>Girls</i>	<b>1.01</b>	<b>0.93</b>	<b>0.86</b>	<b>1.04</b>
<i>Total</i>	<b>2.17</b>	<b>1.86</b>	<b>1.76</b>	<b>2.29</b>

**Figure 11 Average Annual Transition Rate per School**

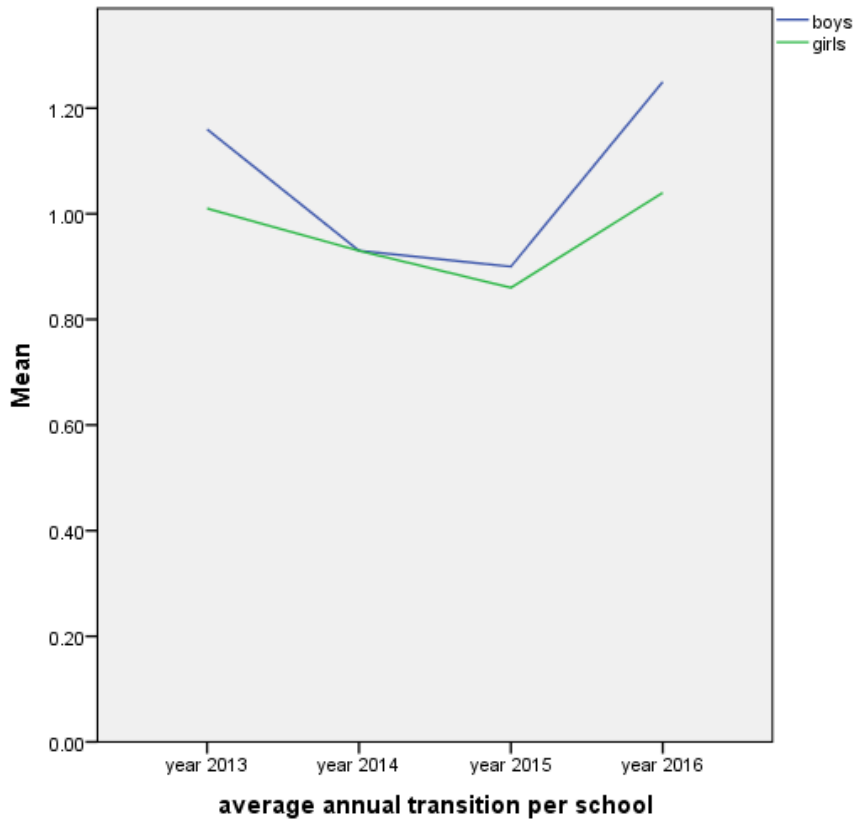


Table 13 and figure 11 indicates the average annual transition rate per school and it can be seen that between the period 2013 and 2015, there is indication of gradual decline in the average annual transition rate per school, which reaches the lowest point in 2015, but picks up again steeply with a significant high, over the review period, of 1.25 for boys and 1.04 for girls. This shows that the project contributed a great deal to overall transition of pupils enrolled per school.

The reduction in use of fuelwood, savings to schools' activity budgets, cost savings to households, Time Savings, Demand for rocket stoves, Community awareness and sustainable tree plantations are all factors that created the right environment for the communities of Wajir, most of whom are disadvantaged, to have enhanced capacity to adapt to climate change challenges facing them. Schools as the nucleus of project activities were equipped with appropriate infrastructure that included Dormitories and Classrooms, WASH facilities, Green technologies, Water storage tanks and rainwater harvesting facilities to create not only a suitable school learning environment, but also to build on that climate friendly growth in the community. More importantly the project adequately addressed barriers to education of girls in the target areas.

As a result of project interventions, schools benefited, in the short run, from installation of solar, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, distribution of sanitary pads and life-skill trainings for vulnerable girls, and increase access, retention and improved quality of education, but also created in the long run a platform for the community to adapt to climate change.

## 4 CONCLUSIONS AND RECOMMENDATIONS

### 4.4 CONCLUSIONS

The following main conclusions can be drawn from the evaluation:

- a) The project inputs were highly relevant, and project planning, organization and implementation were participatory and targeted the needs prioritized by the beneficiaries.
- b) Rate of project activity implementation is high, and installation of solar systems in schools, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, construction and provision of water and latrine facilities, distribution of sanitary towels and sensitization on climate change were fully delivered.
- c) The project is effective in terms of meeting its specific objectives for the target beneficiaries, and improvements were realized in enrolment, retention, attendance and

completion in schools; however, climate change benefits are long term and require more resources and time.

## 4.5 RECOMMENDATIONS

The evaluation found that the project has largely achieved its objectives of improving enrolment, attendance, retention and completion through installation of solar lighting, construction of institutional energy stoves, construction of climate friendly classrooms and boarding facilities, distribution of sanitary towels and increased awareness of climate change and its impact. Project documents were analysed, key project staff interviewed together with data collected from the field survey to arrive at the assessment presented; however, there are still a number of areas that may be improved to increase relevance, effectiveness, impact and sustainability.

- a) Review the specific needs of schools on a regular basis to get a deeper understanding of changes affecting sustainability of project deliverables.
- b) Develop novel mechanisms for scaling up climate change adaptation and mitigation approaches.
- c) Supplementary effort need to consider construction of latrines and water points with physically challenged in mind.
- d) Consideration for fully engaging county government line ministries in project implementation to enhance sustainability of infrastructure deliverables and assurance of lasting benefits.
- e) Include supplementary budget in future for local inexpensive mechanisms for ascertaining the quality or fitness of water for school children's consumption
- f) Supplementary effort need to take into account ecologically sustainable management of pit latrines.
- g) Increase the number of community members, living in the vicinity of the schools, equipped with the relevant skills to provide maintenance services for infrastructure developments.

- h) On the strength of the good results achieved, continue to promote increased access to improved WASH facilities, classroom and boarding infrastructure, distribution of sanitary pads and action on climate change and its impact.