



HARAAD REEB (*Quenching the Thirst*) II FINAL REPORT

October 2013 – April 2016



Figure 1: Girls are now happy to fetch water at kiosks that are located closer to their homes

Project Title	Haraad Reeb- Quenching the Thirst II
Contract No	2013.1822.9
Report Title	Interim-Final report
Project Period	Oct- 2013-April 2016 (1/10/2013-31/04/2016)
Recipient Organisation	CARE Germany
Local Counterpart	CARE Somalia Country office

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TERMS AND ACRONYMS

ACD	Assistant Country Director
AM	Area Manager
Berked	Under-ground water harvesting storage
BH	Borehole
CAAC	Catchment Area Advisory Committee
CD	Country Director
CFW	Cash for Work
CLTS	Community Led Total Sanitation
DFID	<u>Department for International Development (UK)</u>
DWO	District Water Officer
EC	
FC	Finance Controller
FFP	Foundation for Peace
FGD	Focus Group Discussion
GIFT	Governance-Into-Functionality Tool
HH	Household
IEC	<u>Information, Education and Communication</u>
INGO	International Non-governmental Organization
IGAKH	<u>Income Generating Activity</u>
KII	
M&E	Monitoring and Evaluation
MDG	Millenium Development Goal
MEWNR	Ministry of Environment, Water and natural Resources
MOFA	<u>Ministry Of Foreign Affairs</u>

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MOH	Ministry of Health
MOU	Memorandum of Understanding
MoWR MoWR	Ministry of Water Resources
MWS	Mini Water System
NERAD	National Emergency Relief and Disaster
NFI	
NGO	Non-governmental Organization
O&M	Operations and Management
ODF	Open Defecation Free
P2P	Project to Program
PC	Program Coordinator
PPP	Public Private Partnership
PPP4RA	Public Private Partnership for Rural Areas
RWMP	Rural Water Management Policy
SD	Security Advisor
SOMGEP	Somali Girls Education Promotion Project
SPO	Senior Project Officer
TOT	Training of Trainers
TSR	Towards Self Reliance
UN	United Nations
UNDP	<u>United Nations Development Programme</u>
UNICEF	<u>United Nations International Children's Emergency Fund</u>
VLOM	Village Level Operations and Management
VSLA	Villages Savings and Loan Associations
WASH	Water Sanitation and Hygiene
WASRER	Water Services Regulatory Board

WG Women's Group
WMC
WRMA Water Resource Management Authority
WRUA Water Resource User Association
WSTF Water Services Trust Fund
WTI Water Technology Institute

I. INTRODUCTION

[To be filled in by CARE Deutschland-Luxemburg]

II. Background

Somaliland, and particularly the three target regions of, Sool, Sanaag and Togdheer, is drought prone, receiving erratic rainfall of 100–200mm per annum. The livelihood of this nomadic population depends on herding of livestock. As water and pasture have often been scarce, family members migrate looking for pasture, with children, while mothers and elderly people typically remain in the village. Most of water sources in the area are *berkeds*: shallow wells and a few boreholes. Lasting longer, boreholes are the main source of water during prolonged drought.

CARE has been working in Somaliland since 1994 and implemented various interventions across the area. In 2010, CARE restructured its working approach from project to program, and re-sized its geographical area coverage to cover the three regions of Sool, Sanaag and Togdheer. The regions were selected by CARE as the geographic working area, meaning communities in these regions will benefit from CARE inputs to maximize the impact of CARE work. The program approach contributed to the success of the Haraad Reeb project, due to the synergies created with other CARE projects in the same villages. Some of the projects being implemented in these regions include: Somali Girls Education Promotion Project (SOMGEP), Foundation for Peace (FFP) and Towards Self Reliance (TSR II). SOMGEP focuses on education and empowers women to play a meaningful role in public life through access to formal education, which would enable them to participate in decision making in the community. FFP implements peace building activities, therefore offering an effective leverage for Haraad Reeb II. This is particularly important, as conflict is common with water being a scarce resource in these regions. TSR II supports households to improve their purchasing power and build asset bases through the establishment of Village Savings and Loans Associations (VSLA) associates with capital injection through Cash for Work (CFW) activities. CARE has developed effective working relationships and collaborations with communities, the line Ministry, and other stakeholders.

Haraad Reeb project's objective is to increase drought resilience in the project target group by enhancing access to clean water. The first phase-part of the project (Haraad Reeb I) focused on the improvement of water infrastructure and sanitation facilities through the rehabilitation of boreholes, and construction of water sources such as berkeds, shallow wells, water catchments, and communal and household (HH) latrines. Additionally, an innovative pilot cost recovery mechanism was introduced and seven pilot mini power water supply points were constructed in seven target villages.

The experiences learnt from phase-part one of the project (Haraad Reeb 1) have been taken into consideration in the design of Haraad Reeb II, such as priority being given to the operation and maintenance component of the project and creating a cost recovery mechanism. The piloted mini solar powered water supply system and other cost recovery mechanisms are-were implemented in 31 villages throughout Somaliland. Additionally, from the experience of the previous project and in relation to Water Act assessment, a Rural Water Management manual was developed to be used to govern all Somaliland rural water supplies.

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Commented [H2R1]: Implemented

Commented [UK3]: It would be really helpful if there could be more explanation of what happened during Phase 1 here. Throughout the report, it's confusing as to what happened in Phase 1 (which is not part of this report?) and what is actually being reported for Phase 2.

For example, in this last paragraph of the Background, it's unclear whether these are things that were determined as future recommendations during Phase 1 or if they were simply activities carried out during Phase 2 (in which case they should not be in the Background section, but instead fully explained in the body of the report)

Commented [H4R3]: The report is focusing only phase 2, of the project. Phase 1 project which was implemented Sept 2011 – April 2013, had almost similar project concept with the one of phase 2. The experience learned from phase 1 was built phase of the project. In the Phase 1 project little consideration was given the operatio and maintenance of the water supply.

Summary

The Haraad Reeb II project aims to contribute to the resilience and drought recovery in the Sool, Sanaag and Togdheer regions of Somaliland and reduce vulnerability to future droughts. The project implemented a disaster risk reduction plan as a way of increasing resilience of the beneficiaries and addresses strategic gaps of rural water in Somaliland.

The original design focused on the more water-stressed eastern regions, but the project covered virtually all regions of Somaliland – from the border with Puntland in the east to the borders with Ethiopia and Djibouti to the west. On one hand, this extensive coverage spread the project resources rather thinly; but on the other hand it addressed perceived and/or real clan, social and economic inequalities. Moreover, the Ministry of Water Resources (MoWR) realized that CARE's rural water supply management model had potential for nationwide application and therefore requested that the model be piloted in as diverse of conditions as possible. Thus, the project made a deliberate attempt to reach remote villages. Specifically, the project reached 15 new villages in the Sool region in the less secure locations around Las Anod. Success in these new villages was based on a well cultivated relationship with the local regional and district water offices.

The project addressed water infrastructure improvement and constructed 33 water supply infrastructures for the targeted communities. The water wells were rehabilitated, water pumping systems mounted and water storage and supply pipelines constructed. In addition, solar powered lighting side business was added to the water supply scheme of 20 shallow wells, with the revenue generated from the village lighting and mobile charging used to cover the operation and maintenance cost of the water supply facilities. As a result, 33 water points are in operation and have been handed over to the local management system by MoWR and CARE's project team.

Household water storage capacity and transportation facilities have also improved. 580 HHs were provided with a wheel-barrow, two Jerricans and a drum of 120 litres capacity each, which contributed to the storage capacity and transportation of the water at HH level. This has increased the consumption of water and hence improved the hygiene of the community.

The project provided training scholarships to 35 village based water technicians from the rural water schemes for a six month course at the Water Technology Institute (WTI) in Hargeisa. All 35 fully trained village based water technicians are now in operation at the respective water schemes where they were selected, as the 15 second batch village based water technicians graduated in March 2016. Moreover, the second batch village based water technician's graduation came in during the national El Niño prompted drought emergency and they have been deployed to join the national drought response unit and help to rehabilitate the strategic water points across the country. Therefore, Haraad Reeb project was recognized for its active role in the water sector and the contribution of drought resilience in eastern regions of Somaliland as well as the drought emergency

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response in Western regions of Somaliland. During the ceremony, which was attended by high level delegates including Minister of Water, Minister of Education, members of parliament, CARE officials and Haraad Reeb project staff, CARE was praised for its great work and presented with an award of appreciation by the MoWR.

The project facilitated a learning exchange visit to Kenya for the MoWR officers to learn how other countries manage water resource at national level. The ministry team visited four counties in Kenya and had the opportunity to meet and see water sector developments and management structures in Kenya. The ministry staff learned lessons from the visit and decided to borrow some of the initiatives seen in Kenya.

Promotion of hygiene and sanitation through Community Led Total Sanitation (CLTS) were undertaken in 30 villages in Sool, Togdheer and Sanaag regions of Somaliland. The communities were provided with CLTS trainings to show the open defecations health hazards and the importance of construction and usage of latrines. To strengthen the message and community education, 90 community health promoters were trained in hygiene and sanitation. The promoters undertook regular mobilization on hygiene and sanitation education at village level.

III.IMPLEMENTATION

Table 1. Comparison of the projected activities with the effectively implemented activities

Objective/ Target	Output/ Activity	Implementation	Indicator/Additional Information
OVERALL OBJECTIVES Contribute to the resilience and drought recovery of Sool, Sanaag and Togdheer and reduce vulnerability to future droughts	<ul style="list-style-type: none"> ▪ Enhanced access to water by improving water infrastructure ▪ Improved operations and maintenance of rural water supply ▪ Improved sanitation and hygiene practices in the rural communities 	<ul style="list-style-type: none"> • 27 shallow wells rehabilitated with cost recovery facilities established in 27 villages • 6 boreholes rehabilitated and cost recovery facilities established in 6 communities • 580 HHs provided with water transport and storage facilities 	<ul style="list-style-type: none"> • 6400 HH have access to clean water • 33 water schemes are functional with water cost recovery mechanism • 580 HH have improved water storage capacity

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		<ul style="list-style-type: none"> • 35 rural water technicians graduated from Water Technology Institute (WTI) and provided with hand tools • Rural water management manual developed and endorsed by the <u>MoWR</u> • National hydrological drought preparedness strategy developed • 90 community hygiene promoters received health and sanitation trainings • 390 hygiene promotion mobilizations undertaken in 30 villages 	<ul style="list-style-type: none"> • <u>MoWR</u> capacity in Rural rural water management enhanced • 35 trained operators are in operation at rural water schemes
EXPECTED RESULT 1. Enhanced access to water by improving water infrastructure	1.1 Community mobilization and start up activities in new villages	<ul style="list-style-type: none"> • Meetings with line ministry and district authorities conducted • MOU signed with the MoWR • Community meetings carried out in collaboration with district authorities and Ministry of Water • 33 target communities selected in collaboration with local authority and consultation of the larger community and MoWR • Project baseline assessment conducted 	<ul style="list-style-type: none"> • Closer partnership with MoWR

		<ul style="list-style-type: none"> • Community profiling conducted for all target villages 	
	<p>1.2. Construction of 27 improved shallow wells with solar panels installed.</p>	<p>20 mini water schemes improvement plans implemented</p> <ul style="list-style-type: none"> • 20 new mini water schemes with cost recovery mechanism established for 20 communities • 7 shallow wells rehabilitated with solar panels installed • 16 village water storage tanks constructed • Water piping connections constructed for 4 mini water schemes <p>6 boreholes schemes Improvement plans implemented</p> <ul style="list-style-type: none"> • 2 new water tanks constructed for two boreholes • 1 tank rehabilitated for boreholes • 3 sanitation units (shower/latrines) for 3 boreholes constructed as <u>income generating activity (IGA)</u> • 4 connection/distribution pipes to kiosks installed in the villages 	<ul style="list-style-type: none"> • Sustainability and accessibility of water enhanced as the system generates income • 33 existing systems' functionality improved • 5% of Somaliland strategic boreholes subsidised

	<p>1.3. Construction of 120 roof water harvesting storage tanks</p>	<ul style="list-style-type: none"> • 177 roof water catchment tanks distributed to 34 rural communities 	<ul style="list-style-type: none"> • 34 villages improved Water storage capacity • 19 villages with water tracking tanks/facilities
	<p>1.4. Safe water storage facilities provision for women</p>	<ul style="list-style-type: none"> • 580 water storage drums distributed to 580 HH • 1160 20-litre jerricans distributed to 580 HHs • 580 wheelbarrows distributed to 580 HHs • 580 washing basins distributed to 580 HHs • 84 cartons of laundry soap distributed to 500 HHs 	<ul style="list-style-type: none"> • Improved HH water storage and water transportation facility • Average consumption rate reached 160 liters per HH (average HH size 6 members) • 79% of target HHs consume average of 140 litres per day
<p>EXPECTED RESULT 2. Improved operations and maintenance of rural water supply</p>	<p>2.1 Review the Water Act with a consultant and the MoWR and assess it against the practices on the ground situation in the targeted districts (district by district exercise)</p>	<ul style="list-style-type: none"> • Water act assessment carried out • Water act assessment outcome Presented • Action plans of water act gaps developed • Rural water management policy <u>(RWMP)</u> developed, and validated by <u>Water Sanitation and Hygiene (WASH-)</u> stakeholders and endorsed by MoWR • National Rural water management policy<u>RWMP</u> manual developed 	

	2.2 Develop an action plan by district on how to improve implementation of the Water Act	<ul style="list-style-type: none"> • Assessment of situational analysis on Operations and Management (O&M) water schemes carried out in districts of all regions • Strategic water schemes to be financed selected • Resources needed of each targeted water schemes evaluated • Action plan for implementation of water schemes to be financed developed 	
	2.3 Finance Action plan through training provision of tools, subsidy of staff and other resource in each district.	<ul style="list-style-type: none"> • 27 water mini schemes and 6 boreholes selected • Needs required to operationalize and subsidize 33 schemes to ensure sustainability assessed 	<ul style="list-style-type: none"> • 33 water points financed
	2.4 Provide 6 months' training scholarship support for 35 government technicians in water systems and maintenance	<ul style="list-style-type: none"> • 6 month training scholarship received by 35 rural water technicians • Water Technology InstituteWTI equipped and furnished • Trained technicians equipped with tools and provided certificates 	<ul style="list-style-type: none"> • 35 trained technicians graduated from WTI • 35 trained technicians are in operation at rural water schemes • 1 out of 20 trainees is employed at the WTI as instructor assistant • Employment opportunities for graduates increased • Targeted water schemes attained 84% sustainability check score

	2.5 Conduct learning session of O&M Models	<ul style="list-style-type: none"> • Governance-into-functionality (GIF) assessment conducted for 12 boreholes and 19 mini water systems • Exchange learning visit to Kenya for the MoWR official facilitated, including the Director General and project staff • Learning workshops and discussion meetings for rural water point operation and management models conducted • Validation workshops of rural water management <u>policy RWMP</u> at national level conducted • Drought preparedness strategy validation workshop conducted 	<ul style="list-style-type: none"> • GIF assessment found that 75% of water schemes managed by individuals not accountable to any institution • GIF assessment found 100% preferred tri-party management modality- MoW <u>Ministry of Water</u>, District authority and community member • MoWR leadership influenced on the national priorities on water management • Stakeholders who participated in policy validation workshops appreciated the policy and underlined positive impact of the policy • MoWR endorsed RWMP
	2.6 Agree on improvement management plans boreholes and shallow wells	<ul style="list-style-type: none"> • Workshop for development of rural water management conducted • Workshops and desk review for agreed management modality facilitated • National RWMP rural <u>water management policy</u> drafted 	<ul style="list-style-type: none"> • Water management policy from the stakeholders and endorsed by the ministry validated • PPP management modality for rural water supply schemes validated and agreed on

			<ul style="list-style-type: none"> • RWMP in place
	2.7 Improve government drought disaster preparedness plan for the WASH sector	<ul style="list-style-type: none"> • Disaster preparedness plan for the WASH sector developed, including early warning mechanism • Strategy development attended and validated by all WASH stakeholders and National unit for disaster preparedness • Establishment and equipment of rapid response unit for water sector facilitated • Rapid drought impact assessment (El Nino effect) carried out with national unit for disaster 	<ul style="list-style-type: none"> • Disaster response manual developed • Disaster response working group formed
Expected Result 3: Sanitation and hygiene practises improved in the rural community	3.1 Conduct Community Led Total Sanitation (CLTS) training as Training of Trainers (ToT)	<ul style="list-style-type: none"> • 7 ToT-ToT trainees trained in CLTS approach on rural community hygiene and sanitation improvement • 1292 community participants trained on hygiene sanitation promotion through CLTS • 30 villages received hygiene and sanitation awareness conducted through CLTS 	<ul style="list-style-type: none"> • People living in the 30 target villages showed positive attitude to eliminate the open defecation • Project monitors observed individuals starting to dig pits to be used as toilets

<p>3.2 Raise awareness in water sanitation and hygiene</p>	<ul style="list-style-type: none"> • 90 hygiene promoters trained from 30 villages • 390 hygiene promotion mobilizations undertaken in 30 villages • 20 villages provided with awareness tools like portable microphones & <u>Information, Education and Communication (IEC)</u> material • 30 villages provided with written hygiene sanitation messages 	<ul style="list-style-type: none"> • 3 hygiene promoters available in each of the 30 target villages • Mass communication means are available in 20 villages • 27,000 beneficiaries received hygiene messages • 84% of beneficiaries are practising good hygiene practices
<p>3.3 Produce hygiene and sanitation books (IEC)</p>	<ul style="list-style-type: none"> ▪ 3500 hygiene and sanitation books produced and distributed to 30 villages 	<ul style="list-style-type: none"> • 3500 HHs in 30 villages have access to hygiene messages in the booklets

Procurement of non-food items (amount, costs, procurement location);

Items procured are shown in Table 2 below and as reported in the previous reporting period.

Table 2. Water facilities

	List of items	Phase 1			Phase 2			Grand total
		Quantity	Unit price US\$	Total US\$	Quantity	Unit price US\$	Total costs US\$	
1	Wheel barrows	500	25	14,500	80	30	2400	16,900
	Washing Basins	500	11	6,380	80	10	800	7,180
3	Jerricans (20 Litres)	1000	4	4,640	160	4.5	720	5,360
4	Barrels (120 Litres)	500	25	14,500	160	33	5280	19,780
5	Barrels_(60_Litres)	500			80			0
6	Laundry soap in cartons (50 /carton)	84	15	1,260				1,260
7	Water tanks	120	260	31,200	20	480	9600	40,800
	Total			72,480			18,800	91,280

Transport by sea/air/rail/road:

Some of the project items were purchased in the capital city of Somaliland (Hargeisa) and transported to the field office by road. Such items include the water storage materials, wheelbarrows and soap. Other items were shipped to the field through Berbera Port. These items include batteries, charge controllers, pumps and converters which were shipped in, while solar panels were transported by air and sea. All items were received and distributed from the Burao field office to communities.

Arrival of relief items, damage, loss

All materials were safely stored in CARE’s field office before being transported to target communities and all materials transported to the villages were received with no damages.

Transport within the country/storage/handling

All material purchased were transported to and stored in Burao CARE office.

Table 3. List of items as distributed in project locations

	List of items	Total No
1	Wheel barrows	580
	Wash basins	580
3	Jerricans (20 Litres)	1160
4	Barrels_(120_Litres and 60 Litres)	820
5	Laundry soap in cartons (50 /cart)	84
6	Water tanks	177

Number and composition of beneficiaries; if applicable: explanation of discrepancies from proposal:

The project target beneficiaries are inhabitants of 44 pastoralist village settlements, and surrounding nomads in Sool, Sanaag and Togdheer regions in Somalia. The beneficiaries are communities living in arid-lands where the average rainfall is very low per year. The target communities are vulnerable to recurrent droughts that frequently affect the livestock due to scarcity of water for humans and animals which also creates a challenge in obtaining fodder for the animals. 100% of the target communities are poor pastoralists whose livelihoods depend on the livestock. When drought occurs, people move their livestock from place to place and women and some young children are left in the villages. Haraad Reeb project is addressing water scarcity for the arid land to ensure that these vulnerable communities have access to adequate water and sanitation services.

According to the project monitoring reports, the project reached 44 rural villages with an estimated total of 18,520HHs (Table 4). 16395HHs of out 18,520HHs have functional water schemes. People living in these areas are benefiting from the project components directly or indirectly. Among the total beneficiaries with schemes, 13264 HHs currently have access to clear, safe water with a minimum consumption rate of 120 litres per HH per day from the project built water schemes. Out of the total direct beneficiaries getting water from the system, 60% are women and girls.

Table 4: Distribution of households in all target villages, ~~and those include~~ including those with or without water scheme.

S.N	Village Name	Population HH	HH access with the scheme	S. N	Village Name	Population HH	HH access water from scheme
1.	War-idad	180	No scheme	24	Dhagaxdheer	160	No scheme
2.	Higlo	210	210	25	Balanbaal	142	142
3.	Xaaxi	500	200	26	Haberiheshay	372	200
4.	El-dhaab	196	196	27	Haradagubata xil	846	200
5.	Ulasan	83	83	28	Waraabeye	249	No scheme
6.	Bali-Arale	183	183	29	Fadhigaab	210	200
7.	Wadamo-go	720	200	30	Qudhackudle	174	174
8.	Harashiikh	737	200	31	Waraabod	100	100
9.	Abdi-farah	88	88	32	Xariirad	400	400
10	Gol-jano	43	No scheme	33	Gedbalaadh	1500	1500
11	Tukub	43	No scheme	34	Allaybaday	2000	2000
12	Duruqsi	690	No scheme	35	Dhubato	500	500

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1 3	Qoryaale	113 2	200	36	Cadaadlay	700	700
1 4	Barwaaqo	40	No scheme	37	Geel-lokor	300	300
1 5	Siincaro	76	No scheme	38	Biyoolay	200	200
1 6	Qorulugud	102 3	200	39	Suuqsade	800	800
1 7	Ali Essa	80	No scheme	40	Yeyle	500	500
1 8	Kiridh	52	52	41	Ceel-la helay	200	200
1 8	Badweine	55	No scheme	42	Dalyare	150	150
2 0	Bali-hiile	230	No scheme	43	Gambadhe	300	300
2 2	Gadh- gumured	137	No scheme	44	Awrbogays	2000	2000
2 3	Bilcile	219	200				
	Total					18,520	13,264 2,578

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Involvement of the target group in project implementation

The project target group and stakeholders have been involved in every stage of implementation. The Ministry of Water Resources (MoWR) has been actively involved from the development of the concept note to the selection of the beneficiaries and actual implementation of the activities. The Ministry assigned four staff members to support the implementation at the field level. The project staff in collaboration with ~~MoWR~~MoWR and district authority participated in setting up project management committees at the village level, identified communal water points and jointly came up with working modalities. For instance, VSLA members took the role of writing and submitting a pre-list of the vulnerable individuals and preparation of the distribution sites, and they were dominant volunteers during the distribution of items. Communities have also contributed to the implementation of the project activities through in-kind donations and taking a leading role in the management process.

Documentation of foodstuff distribution;

N/A

Adequate use of relief items

N/A

Tasks performed/responsibilities of the project staff

The project implementation has involved a number of personnel at varying hierarchy. The project officers, area manager and project engineer are providing day to day direct support to the projects. The program coordinators, finance controller, security advisors are providing coordination, controlling and overall guidance of the project. The country and assistant

country director undertake the leadership role of the country office. As reported in the Year 1 report, find in Annex 1 the details of the tasks and responsibilities of each staff involved in the project implementation.

IV. IMPACT

ACHIEVEMENT OF PROJECT ACTIVITIES

Specific Objectives:

Contribute to the resilience and drought recovery of Sool, Sanaag and Togdheer and reduce vulnerability to future droughts

EXPECTED RESULT 1. Enhanced access to water by improving water infrastructure

1.1. Community Mobilization and Start Up of Activities in New villages

Haraad Reeb II was developed in consultation with district authorities and Ministry of Water Resources (MoWR) considering the lessons learned and challenges of Haraad Reeb I. The ~~MoWR~~MoWR and district authorities were familiar with the project concept prior to project implementation. Once the project was approved and funds released, the project staff shared the final document with the MoWR and district authorities, to plan and mobilize project resources and start-up the project. In addition, Haraad Reeb project and the Ministry of Water signed an MOU agreement to clarify the roles and responsibility of each stakeholder. The project team, in collaboration with the ministry and district, discussed the need and selection of the project target villages. Since the project's main focus is the operations and maintenance component, which had not been given attention for the last two decades, the criteria for the selection of the new water points was ~~central to the concept of operations and maintenance~~crucial. The aim of the intervention on operations and maintenance is to enhance technical skills of rural water point operators, operationalize water regulation in the rural areas and subsidise water points for sustainability. Therefore, the MoWR advised to select sample water points across Somaliland so that all regions could benefit from the experience and application of ~~rural water supply management~~RWSM policy, which filled the gaps of the water regulatory framework. A team from CARE and MoWR carried out an assessment of rural water points that could self-sustain if technical and managerial support was provided. More in depth feasibility studies and assessments were done on the selected water points and the team came up with the list of interventions in collaboration with the village leaders, water point operators and district water officers. Furthermore, another technical team revisited the selected water points and produced a technical guide on the rehabilitation and sustainable management of the water points.

The selections of project target villages were done in two phases. In phase 1, 30 target villages were selected where 15 villages were new and the other 15 villages were beneficiaries of Haraad Reeb I. Another 15 water points were selected in phase II of the project from all Somaliland regions. In total the project worked in 45 villages, with some from the project target regions of Sool, Sanaag and Togdheer and some from other regions. The details of project target villages' selection process can be found in Annex I.

Baseline Assessment

The project baseline was undertaken in January 2014 in Togdheer region (Ainaba district). The assessment looked at the benchmark of the project logframe indicators on the access of clean water for the community, HH water consumption, existing and effectiveness of water regulation, rural water management approaches and water schemes functionality.

In Somaliland most of the rural water supply services were inadequate due to a high rate of dysfunctional rural water supply schemes. These schemes completely rely on external support for operation and maintenance. Several reports emphasize that the problems related to the failure of community based management are linked with poor capacity of local stakeholders. Therefore, over 70% of the rural water supply project failures can be attributed to institutional, rather than technical, inadequacies, due to poor regulations and insufficient support to community based institutions (SWALIM 2014).

A lot of work has been done by various international agencies in Somaliland to either rehabilitate or construct water sources. Soon after, these water sources break down and the process has to be repeated by another agency. There is little effort that has been put into improving the sustainability of these water sources for them to function efficiently and effectively so that beneficiaries can have access to water over a prolonged period of time and especially during drought. CARE's approach of the Towards Sustainable Operation and Maintenance of Rural Water Supply utilized an effective national water policy and solar lighting side business that ensures reliable and sustainable rural water supply.

The study also looked at the level of community hygiene and sanitation and the good practices of hygiene and sanitation. More details of the baseline outcomes can be found in the YR 1 report. A summary of findings is also captured in Annex 3.

Performance: Measured against the indicator targets, the project's performance is as summarised in the following table.

Table5: Project performance against targets

Target	Performance	Comment
Enhanced access to water		
30% beneficiary households with average 15 litres per person	46 % beneficiary households with at least 15 litres per person available daily on average	153% achievement
32,400 people gaining access to an improved drinking water source, 30% will be women and girls	Over 36,000 people gained access to an improved drinking water source – more than 50 % of them women and girls	111% achievement against the original target
100 households targeted for rain water harvesting mechanism/systems	120 households supplied with tanks	112 120% achievement against the original target
Improved operations and maintenance		

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The water act disseminated and adapted by key stakeholders in rural water supply	100%	100% achievement
12 water systems managed through public-private partnerships (PPP) in a cost recovery mechanism	16 PPP projects established	133% achievement against the original target
20 community technicians are able to service and maintain water systems	35 technicians trained	175% achievement against the original target
Sanitation and hygiene		
5 villages certified as "open defecation free" communities	5 village certified ODF	100% achievement
15% of people who observe the four key handwashing times (washing hands after defecation, after cleaning a child's bottom, before eating and preparing food)	78%	520% Note: The reporting may have been biased by the cultural hand washing practices in Somaliland

1.2. Construction of 27 improved shallow wells with solar panels installed

Haraad Reeb II has exceeded expectation and rehabilitated/constructed 27 water schemes with cost recovery mechanism, of which 20 are mini-water schemes. Hence, the total improved water schemes consist of 6 boreholes and 27 mini-water system. The list of water schemes supported and what support each scheme received is summarised in Table 3 in Annex 4.

The purpose was to increase access to clean water for rural communities by putting water supply closer to the HH and increasing HH water storage with effective community based operation and maintenance that enhanced the functionality of the water facilities and reliability of the water supply. Most of the constructed and rehabilitated water points were protected from contamination and mounted with water extraction mechanisms, solar powered submersible water pumps and a diesel power generator water pumping system (for boreholes).

Previously, there was very little consideration for human resource technical **knowhow, maintenance, repairing the system and management of water points capacity**; the constructed and rehabilitated water sources were handed over to people that did not have technical skills and had limited managerial skills. The ability to operationalize and maintain all water infrastructures was difficult for the MoWR with very limited technical and financial capacity to manage rural water supply. Additionally, more than 70% of the work of the Ministry is spent on the provision of rapid response action to water points. Based on the assessments done, the nature and the situation of water points can be categorised in the following manner:

- (a) **Seasonal water points:** These are boreholes drilled in the livestock grazing areas where nomadic communities get water during dry season. This type of water point generates

Commented [UK8]: I don't understand the numbers here: If 20 of 27 water schemes with cost recovery mechanisms are mini-water schemes, what are the other 7? From this paragraph, the only other option listed is boreholes, but there are only 6 of them... It's also a bit unclear the use of water 'scheme' versus water 'system.' Are they being used synonymously?

revenues during the dry season and is closed down during the wet season, as the machinery and water pumping is generally ineffective. The water pumps get damaged because of deposition of salts dissolved in water and the power generator does not get the required maintenance. Restarting the pumping system in the dry season usually involves high investment, which is always funded by the UN and INGOs through MoWR.

- (b) **Water point that can generate little or zero revenue:** The Nomadic village settlements in Somaliland have small number of HHs. The revenue generated from water sales is very little and cannot cover the running costs, human resource or machinery parts. These kinds of water points usually do not have good management and usually result in the collapse of the whole system.
- (c) **Water points that can generate revenue for operation and maintenance but with poor management:** These kinds of water points supply village residents with water and also provide revenue but the revenue is poorly managed, and during low revenue seasons the system doesn't cover the necessary expenses for the care takers. Support is requested from MoWR and other development partners when maintenance is required.

Therefore, Haraad Reeb II project addressed the above gaps utilizing the lessons learnt from previous project interventions in the water sector. The project improved the operation and maintenance mechanism for 33 rural water points to minimize the need for external support and improve the long-term functionality of the rural water supply.

- **Rehabilitation of water infrastructure and machinery:** The project provided infrastructure support to 33 water points after a technical assessment. Technical teams were sent to identify infrastructure support that can contribute to the operation and maintenance, through revenue collection from the water supply sales or from side business, with management training support on the link between the revenue management and long-time functionality rate of the rural water supply. Moreover, the main activities of this particular intervention were to rehabilitate the selected water points, including protecting the open water sources, installing solar powered submersible pumps and water storage tanks and constructing water pipelines including water supply kiosks, coupled with capacity building and policy development.
- **Establishment of side business to generate revenue or compliment the water revenues:** The other support provided to water points is any other infrastructure or machinery that can support water points in the revenue generation. Solar powered village lighting is the major successful side business that generates revenue to run water systems. Stand pipes for truck tanker supply, sanitary unit and site gardening were also designed to generate revenue for the water point particularly for the boreholes. Table 10 summarises the intervention of each water point; see the case study in Box 1.
- **Human resource technical capacity of rural water:** The lack in technical expertise of rural water technicians is one of the major challenges of the rural water supplies. The project is also providing support to train rural water technicians.
- **Improve coordination and collaboration with water sector institution and rural water by developing water management policy:** The project supported the MoWR in the development of regulatory frame works in general and the development of **rural water management policy** RWMP in particular, which will contribute to the smooth management of rural water.

Box 1. Case Study - Successful Rural Water Supply Management Models

1. Hariirad pre-urban:

Hariirad Mini water system is a current example of the Public Private Partnership for Rural Areas (PPP4RA) management model. The project team worked with a group of self-established community members who were operating a mini water system in the pre-urban settling of Hariirad of Awdal Region. The mini system (shallow well) was improved with flood protection, water pumping, a solar system and a water kiosk extension. Additionally, a village level water technician was trained. The management system follows the Public Private Partnership for Rural Areas (PPP4RA) model, which is working well by increasing pipeline home connections in a community that is willing to pay for water supply services. Hariirad water system is managed by a group of individuals chaired by a local businessman (shop keeper). They have 6 paid staff who manage the activities related to the 256 household piped connections, 16m³ capacity elevated tank and 6 kiosks.

2. Ulasan Viilage:

Ulasan is located 18km north of Kiridh village (which lies along the tarmac road to Ainabo), with an estimated 280HH. There are more than 60 unprotected shallow wells which are used by pastoralists living in the surrounding area to water their livestock and supply their household water consumption. CARE protected one of the shallow wells for human consumption and added a sand dam to increase the yield of the well. The mini water system is equipped with a solar hybrid water supply system, including a distribution of an elevated GI water tank of capacity of 4cum and 2 kiosks. The solar system is currently supplying electric power to 20-25 connections (shops and merchants), and revenue generated from village lighting and mobile charging covers the routine operation and maintenance of the water facilities. The management model is the community based management unit of the Village Level Operation and Maintenance (VLOM) and the village based water technician was trained in the Water Technical institute (WTI) managed by Ministry of Water Resources.

- Commented [UK9]: What is GI?
- Commented [H10R9]: Galvanised Iron water tank
- Commented [UK11]: Is this m3?
- Commented [H12R11]: Yes m³

Figures 2-3: Unprotected open shallow well and Improved Shallow well with hybrid Solar water supply system



Table 6: Sustainable O&M Analysis of the Solar powered Rural Water Supply

Name of the Village	No. HH served	Mngt Model/Cost recovery	Water production	Revenue generated per annual	Cost of the O&M
Qoryaale/Sool region	185 HH	Village Level Operation and Maintenance (VLOM)	14m ³ per day	Electricity for 25 HH \$214.2 per month Mobile Charging \$10.8	\$840 - \$1,160

		Cost recovery through Solar lighting and mobile charging		Total revenue \$2,700	
Haroshiekh/Togdher	180 HH	Village Level Operation and Maintenance (VLOM) Cost recovery through Solar lighting and mobile charging	12m ³ per day	Electricity for 15 HH connections each \$0.29 Elec: \$128.5 Monthly Mobile Charging \$21.5 Total revenue \$1,800	\$830- \$1,020
Dhubato/Marodijeh <i>(One of the additional sites)</i>	130HH	Village Level Operation and Maintenance (VLOM) Cost recovery through water sales.	12m ³ per day	Pilot monthly HH payment tariff of \$2.14 Business \$4.29 Total revenue \$4,008	\$680- \$1250

Table 7: List of Individual WASH Schemes Activities

	Water point	Type	Region	Support provided(specific interventions)
Newly financed water point				
1	Geedbalaadh	Borehole (BH)	MaroodiJeex	<ul style="list-style-type: none"> • 516m water pipe distribution • Construction of 2 public sanitary structures (shower and toilet rooms) • Construction of new concrete elevated water tank of 14m³ volume • Minor generator repairs • 2 new kiosks + rehabilitation of old ones
2	Damaarabob	BH	MaroodiJeex	<ul style="list-style-type: none"> • Rehab of water tanks • Rehab of transmission line and kiosk • Rehab of stand pipe • Fencing of well field 240m linear • Construction of new kiosks • Supply and reinstalling of water pump
3	Xariirad	Mini water system (MWS)	Awdal	<ul style="list-style-type: none"> • Solar water pumping system provided and installed • Flood protection 50m gabion line along riverbed (two layers over each other) installed • Public toilet construction • Rehab kiosks and construction of two new ones • Providing and laying distribution line and rehabilitation of existing one
4	Waraabood	BH	Awdal	<ul style="list-style-type: none"> • Construction of water distribution line + 2 new kiosks • Construction of 2 pit latrines • Repairing of electric generator
5	Geelookor	BH	Saxil	<ul style="list-style-type: none"> • Maintenance of solar system • Rehab pipeline • Rehab kiosks • Construction of 1 new latrine • Construction of new concrete tank of 14 M³ volume
6	Biyoolay -	MWS	Saaxil	<ul style="list-style-type: none"> • Establishment of new solar water system • Rehab water well • Construction of 2 new kiosks in the centre of village • Replacing 680 m distribution lines from shallow well to tank and then to village (kiosks)

7	Suuqsade	MWS	Saaxil	<ul style="list-style-type: none"> • Shallow well flood protection; Repairing of existing sand storage dam • Rehabilitation of exiting kiosk • Installation of solar system (solar water pump + all required materials) • Installation of stand pipe for water tankers
8	Cadaadlay	MWS	Maraadijeex	<ul style="list-style-type: none"> • Maintenance of the solar system • Rehab of kiosk pipeline • Construction of new kiosks • Supply and fixing minor repairs
9	Dhubato	MWS	Maroodijeex	<ul style="list-style-type: none"> • Rehabilitation of Shallow well • Installation of new water pump, and extension of solar power • maintain distribution • Construction of two kiosks • Construction of sand storage dam
10	Gambadhe	BH	Sool	<ul style="list-style-type: none"> • Supply and installation of 60m x 40m fence wall • Installation of water distribution pipeline to two kiosks • Repairing of generator
11	Yeyle	MWS - PPP	Sool	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
12	Dalyare	MWS - PPP	Sool	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
13	Awrbogays	BH	Sanaag	<ul style="list-style-type: none"> • Minor repairing/maintenance of generators • Installation of water distribution system • Construction of 3 animal water troughs • Installation of stand pipe for supply truck tanker
Previously supported water points , provided extra input				
14	Ceeldhaab	MWS - PPP	Sool	<ul style="list-style-type: none"> • Installation of elevated water tank • Installation of water distribution pipeline • Construction of two kiosks • Upgrade of solar power generation
15	Xaaxi		Togdheer	<ul style="list-style-type: none"> • Enhancement of lighting power • Extension of kiosk

		MWS - PPP		
16	Harosheik	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Enhancement of lighting power • Extension of kiosk
17	Bilcile	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Enhancement of lighting power • Extension of kiosk
18	Dhoqoshay	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Enhancement of lighting power • Extension of kiosk
19	Qorulugud	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Extension of kiosk establishment of Complete solar lighting system • Construction of complete solar water system
20	Ulasan	MWS - PPP	Sool	<ul style="list-style-type: none"> • Construction of new kiosk • Pipeline extension to kiosks • Maintain water system • Maintenance of shallow well
21	Kiridh	MWS - PPP	Sool	<ul style="list-style-type: none"> • Kiosk extension • Extension of pipeline to kiosks
22	Higlo	MWS - PPP	Sool	<ul style="list-style-type: none"> • Construction of two new kiosks • Extension of solar power generation
23	Qoryaale	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Extension of pipe line and kiosks • Enhancement of lighting power
24	Adamagoo	MWS - PPP	Sool	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
25	Harada Gubataxil	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
26	Cabdi Farax	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
27	Ballicaraale	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system

				•
				•
				•
				•
28	Quhackudle	MWS - PPP	Togdheer	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
29	Habarihesh ay	MWS - PPP	Sool	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
30	Fadhigaab	MWS - PPP	Sanaag	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
31	Balanbaal	MWS - PPP	Sool	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
32	Bohol	MWS - PPP	Sanaag	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system
33	Sincarro	MWS - PPP	Sanaag	<ul style="list-style-type: none"> • Rehabilitation of shallow well • Installation of complete hybrid water powers system • Construction of water tank and kiosks with distribution pipeline • Establishment of solar lighting system

1.2.1. Quantity of water increased at HH level and at Village level

The combination of interventions improved community access to protected water and increased water consumption at household level. The establishment of mini-electric power supply and water supply and other side business mechanism facilitated access to adequate water for 44 targeted communities. The project facilitated the construction or rehabilitation of water storage tanks for 31 villages, with an average storage capacity of 8 cubic meters. Water tanks are connected to kiosks that supply the village, and house connections in some places. The average population size of villages is estimated at 1500 people and the water consumption demand as per the project target is about 22 cubic meters per day. The project provided the target villages 72% of demanded water storage tanks if the water tank is filled twice a day, and 109% if the tank is filled three times a day. The average mounted water pump's flow rate is 2.0-2.5m³ per hour, so in 8 hours the system provides 70% - 90% of a village's water supply demand.



Figure 4. Women collecting water from a water point with 20 litre jerricans

Commented [UK13]: Who is this for? Is that 22m³/day/village?

Commented [H14R13]: For community, Yes 22m³

According to HH monitoring data, 55% of the respondents stated that the availability of water is more than sufficient and 41% said it was sufficient, with 5% saying water was still insufficient in their village. See figure 5-6 for water availability and HH water storage capacity.

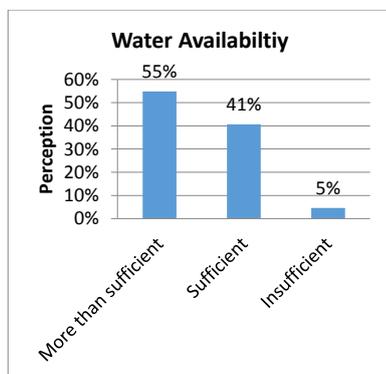


Figure 5. Water availability of target villages after project

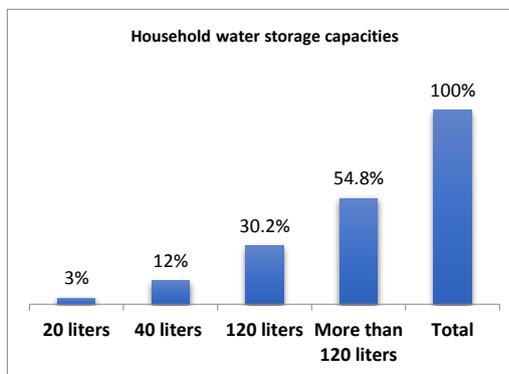


Figure 6. Respondent HH water storage facility

The final project evaluation found that per capita water consumption in wet season was relatively high at 23.9 lppd. This was above the 15 lppd for the SPHERE minimum standard and within the 20-30 lppd standard set by MoWR. However, per capita water consumption dropped to 14.5 lppd in the dry season. Thus the annual average was 19.5 lppd. It was reasoned during project design that increasing availability of water at the source alone was not enough to raise the per capita water consumption; better storage and easier means of

transporting water were expected to have a greater impact. Thus the project provided household storage containers and wheelbarrows to ease transportation. As per the project's theory of change, an increased capacity to store water at the household (provision of containers) may have contributed to the rise in the per capita water consumption. However, provision of the NFIs was not a sustainable intervention.

Hence, national coverage of improved water source averages 42% – 46% in urban and 38% in rural areas. According to the final project evaluation, the main supply indicators had improved significantly since baseline (2013), with the national coverage of improved water source is now up to 89%.

Commented [UK15]: This needs to be spelled out
 Commented [H16R15]: Non Food Items

1.4.1. Water fetching Time

The distance to a water supply point was dramatically reduced, as the project facilitated the ability to fetch water closer to households. The average fetching time is now less than 30 minutes.



Figures 7-8. Water fetching situations before and after the project,

1.3. Construction of 177 roof water harvesting storage tanks

Haraad Reeb project distributed 177 roof installed rain water harvesting tanks of 1 m³ at household level. The purpose of the distribution of water tanks was to increase water harvesting, especially for villages that have no ground water source. Additionally, since people prefer soft water, this reduces chances of water contamination by collecting water from rain roof catchment. The selection and the distribution of the water storage tanks was done through a participatory manner and it involved the village elders, the village committees, women's groups and the religious leaders in order to have a fair selection. Priority was given to villages that have no permanent water source and the HH beneficiaries were selected using the criteria below:



Figure 9. Rainwater harvesting water tanks

Commented [AK17]: this is unclear
 Commented [H18R17]: Soft water means less mineral contents. Ground water have high mineral/salt content

1. Beneficiary who have building with a roof that can collect rain water. This is because most HH have shelters made of either cartons, clothes and dried sticks and may not be appropriate to collect water.
2. A family with three to five children of which at least one is under five years.

Table: 8 List of selected village and number roof water catchment tanks provided

		Phase1	Phase2			Phase1	Phase2
SN	Village Name	Number of HHs per village		SN	Village Name	Number of HHs per village	
1	Xaaaxi	6 HHs	3HHs	11	Dhagax dheer	8 HHs	
2	Harsosheekh	8 HHs	3HHs	12	Duruqsi	8 HHs	
3	Bali caraale	6 HHs	3HHs	13	waraabeye	5 HHs	
4	Cabdifarah	5 HHs	4HHs	14	Ali ciise	8 HHs	4HHs
5	Qudhackudle	6 HHs	3HHs	15	Balihiile/owrbogays	5 HHs	3HHs
6	Haradagubaxa	8 HHs	4HHs	16	Yeyle	5 HHs	3HHs
7	Dhoqoshay	8 HHs	4HHs	17	Gambadhe	5 HHs	3HHs
8	Gowsowayn/ulasan	5HHs	3HHs	18	Dalyare	5 HHs	3HHs
9	Bilcile	8 HHs	3HHs	19	Ceel-lahelay	5 HHs	3HHs
10	Qoryaale	6 HHs	4HHs	20	Higlo		3HHs
Total						120	57

During regular project monitoring field visits, it has been found that some HHs are and some HHs are not using the tanks to harvest rain water during the raining season and the water tank is sitting idle, with clear evidence of usage for other purposes, as described below:

- *Roof water catchment harvesting:* Some HHs use roof water harvesting in the raining season, as harvesting quantity is a challenge with HH roof surface areas very small, on average 25 square meters. The small amount harvested is also shared with neighbouring HHs, resulting in quick depletion.
- *Water storages:* In the dry season, in situations of insufficient rain or in between rains, people use the tanks to store water from trucks. Some villages pooled all water tanks and established a centre of water distribution where water tankers fill the HH water tanks and the water management unit distributes the water to HHs and charges a small fee. In other places, a number of HHs share each water tank and contribute to pay water from the tanker and then share the stored water for a period.
- *Water trucking:* During periods where there is water shortage, which is also a busy period for water tankers, the water tanks are put on lorries and are used to truck water for both human and livestock usage.
- *Water storage/harvesting in public places:* Some communities allocate some tanks to public places like schools and/or health centres.
- *Water storage for construction:* The project team also observed the tanks are used in construction activities in the villages, where the tank is used to keep water during the construction period.

- *Livestock watering*: In some cases people use the tanks for livestock watering. When pasture land is very far from water, they use the tanks to store water for their livestock instead of bringing livestock to water points.

1.4. Safe water storage facilities provision for women

Before the intervention, the average water consumption rate for a HH with 8 family members was 2.5-7.5 liters per day. The baseline has also revealed that the families had only 20-liter jerry cans for water transportation as well as storage. The limited storage and transportation facilities limited water women used water for cooking, drinking and hygiene related activities. The lack of sufficient water storage facilities at HH level has forced families to practice unhygienic practices, including not washing hands after using the latrine, after handling babies, during milking livestock or handling animal corpses and other critical times which require safe washing practices.

Table 9: HH Received water carrying and storage items

No	Villages	Water Facility	No	Villages	Water Facility
1	Xaaaxi	30	11	Dhagax dheer	30
2	Harsosheekh	30	12	Duruqsi	40
3	Bali caraale	25	13	Waraabeye	35
4	Cabdifarah	30	14	Ali ciise	35
5	Qudhackudle	35	15	Balihiile	35
6	Haradagubaxa	40	16	Yeyle	40
7	Dhoqoshay	40	17	Dalyare	40
8	Gowasaweyn	30	18	Gambadhe	40
9	Bilcile	35	19	Cel-lahely	
10	Qoryaale	30			

The project provided HH water carrying and storage items to 1080 HHs (500 Haraad Reeb 1 and 580 Haraad Reeb 2) in project target area. Each HH received two 20 liter jerricans, one wheelbarrow (to facilitate transport of water from the water source to HH), 2 180 liter water drums (for storage), one washing basin and soap (for hygiene purpose). The purpose of the material distribution was to increase HH hygiene by increasing water consumption through easy water transportation and increased HH water storage.

In collaboration with the district, village authorities and the Ministry of water, the project set criteria to identify and select direct beneficiaries for the distribution of water storage equipment. The criteria included HH that fetch water on their back, families that have one or less than one jerrican to transport and store water and HHs with large family size with limited water facilities for transportation and storage. The following table lists the number of HHs receiving water facility materials and the villages benefiting from the project.



Figure 10-11. Wheelbarrow provided to HH for water Transporting

Table 10: Water storage capacity

Commented [UK19]: Is this table missing? If this refers to Table 10, I would rephrase to something like: Material distribution resulted in many more families having safe water transport and storage, as shown in Table 10

Commented [H20R19]: This is table 9< I think the text moved under the table. Table 9 should have come under the text

Characteristics of water containers	Baseline	current	Additional information
Presence of water storage container			
Target villages that have communal village water storage facility	23%	72%	water storage capacity for all target villages improved where 72% are communal
Target villages that have no communal water storage facility	43.6%	28%	
Type of storage containers			
Jerricans	76.5%	83%	6.5% increase on the baseline.
Plastic tanks	21.8%	37.6%	15.8% increase
Aluminum tank	0.4%	N/A	N/A
Concrete tank	0.4%	1.4%	Contribution of sister projects.
Others	0.8%	1	0.2 increase

Water consumption at HH

Households were provided with water facilities and are now able to transport water easily using the wheelbarrows and Jerricans. Additionally each HH can store 180 liters in the water drums, and 40 liters in the two jerricans totaling 220 liters at a time. Comparing this to project baseline finding, 75.6% of assessed HH used 20 litres jerricans to fetch and store water. In other words, HH who previously had only one jerrican now have **11 times the water storage capacity**.

Access to water was made easier for women and children who can now obtain water simply and transport it home with ease. The tanks and water kiosks are near the villages, thus cutting the distance to water points. Other HH materials like wheelbarrows, HH water storage drums and ~~Jerricans~~ ~~jerricans~~ also facilitated easy transportation of water and HH water storage. The monitoring data found HH water consumption as shown below:

Commented [AK21]: Is this graphic showing water consumption rate in Liters? It needs to be labeled.

Commented [H22R21]: labeled

Figure 11. Changes in water consumption for 3 Regions

Table 11: Achievements against Baseline indicators

INDICATORS	Baseline	Achievement
30% of beneficiary households with average water use for drinking, cooking and personal hygiene is at least 15 litres per person	11% of the beneficiaries meet the average daily per capita consumption of 15 litres	- 72% of the targeted districts water consumption is over 20 litres average per day per person
36,000 people gaining access to improved drinking water source, 30% will be women and girls	The proportion of people using improved water sources (boreholes and protected wells) during dry season is 49.2% whilst during wet season is 51.4%.	- 79,584 people have access to improved water sources - Over 60% of people benefiting from improved water source are women/girls
100 women-headed HH targeted for rain water harvesting mechanism	No woman headed HH has received rain water harvesting tanks from CARE through Harad Reeb II Project	• 177 women headed HH received water harvesting tanks

Commented [UK23]: Similarly to above, if the indicator is a number, the baseline measure should be a number, not a proportion.

Commented [H24R23]: Sorry, review the baseline data needs time

EXPECTED RESULT 2. Improved operations and maintenance of rural water supply

2.1. Understanding of and implementation of the Water Act by district

Review the Water Act with a consultant and the Ministry

The Operation and maintenance (O&M) component of rural water supply in Somaliland have been given little consideration, as was identified during the first Haraad Reeb project. Apart from technical and human resources of the rural water sector, the implementation of the regulatory framework in rural water management was seen as necessary. The Somaliland water act was approved in 2012 but Haraad Reeb I showed that the implementation of the act is absent in the rural areas. With the support of a consultant, the project undertook a study and analysed the actual implementation status of the Water Act in rural areas. The study found that in general, the act established purpose, principles and obligations based on the objectives of the said law. The purpose of the act is to improve availability and access to water in a sustainable and equitable way for all different types of users. The Act set up certain objectives, which are to recognize, legitimize, empower and endorse legislative institutions and traditional institutions, in water related administration, fiscal procedures and judicial affairs. However, the Act has not described the details of rural water management, but provided general principles and guides on the national water sector. The assessment recommended developing an easily understandable and easy to apply rural water management by law. See box 2 for issues of the water regulatory framework for Somaliland and find the summary of the water act report in annex 5.

Box 2 : Water Regulatory Framework for Somaliland

The National Water Policy: A general statement of principles and guidelines to indicate the proper way to develop the water sector and thus to conduct interventions in the sector

The National Water Strategy: objectives, priorities, detailed measures and role sharing that allows the policy to be implemented.

The Water Act: establishes the legal framework supporting the strategy (or translating the strategy into legal provisions and institutional arrangements), defining organisations, mandates and responsibilities, as well as procedures, obligations and interdictions in a general way.

The Water Regulations, gathering all the by-laws necessary to enforce the Water Act and allow acting against anyone who violates the water act.

Moreover, the water act review report highlighted that the current regulatory frame work is a good skeleton but lacking policies, regulations and by-laws that makes the water act effective.

2.2 Develop an action plan by district on how to improve implementation of the Water Act

Based on findings from the assessment, the action plan was to be shared and validated with the Ministry of Water. The implementation of action plan will be shared with stakeholders and the MoWR to harmonize the gaps between policy and practice. This activity will first be conducted at each district level, and then culminate in a workshop in Hargeisa on the process, including any recommendations for (a) national implementation of the act and (b) potential future improvements in the act. This activity is scheduled in next year's work plan.

Table 12: Water Act Tentative Action Plan

S	Description
1.	Share water act study findings with the MoWR MoWR and agree on gaps that need to be improved
2.	Organize meeting with regional and district water officers to sensitize them on the gaps found in the act
3.	Develop rural water management policies procedures in consultation with the MoWR
4.	Select rural water points and strategic bore holes to pilot policies and systems
5.	Train water technicians on the new water management systems
6.	Sub grant selected water points to be able to implement new water management system
7.	Monitor and coach the pilot water points
8.	Annual learning and policy dialogues with communities, government and private sector on appropriate and resilient models for management of rural water supply
9.	Disseminate and implement water management modalities practiced and reviewed

In accordance to the Water Act study and findings, the act provides general principles and guidelines in the water sector including rural water management. The project team, in collaboration with the MoWR and districts teams, set the above implementation plan to compliment the water act.

1. **The water act is shared with the ministry of water:** in collaboration with the ministry of water, a two day meeting was organized with key ministry staff including the Director General of the ministry of water and district officers of the ministry of water. The consultants shared with the team the findings of the water act study and gaps found. The key gap agreed on by all participants was the complimentary by-law of water act articles, with particular attention given to rural water management. The action point one and two of the above action plan was completed.
2. **Water management policy developed:** The water act assessment found there is no defined rural water management guide and the water point operators are independent and set most of the rules for each of the water points. Thus there are no consistent rules governing the management of rural water supplies. The water point operator is not accountable to the village water committee and only reports to them when there is breakdown. On October 2015, Haraad Reeb project organized a meeting with participants from sampled districts from all Somaliland. The participants were from 13 water points, 13 village leaders and 4 district officers. The purpose of the meeting was to review the existing community level water management models and approaches to find out existing management models and brainstorm on the best suitable community based rural water supply management model.

The lessons learned from the water act assessment, experience learned from rural water and district officers and in collaboration with MoWR officers and in consultation with existing water regulatory documents, a consultant hired by the project developed rural water policy points as an outline for further discussion. Based on the set rural water management outline, a seven day meeting was organized in which a draft rural water management model was developed and presented to a final meeting participated in by all water stakeholders for validation. The manual consists of 28 articles with sub article, explanations and procedures with clear roles for government, private sector and communities.

Moreover, the project has supported the development of the 'Rural Water Supply Community-Based Management Manual,' which seems set to become a national policy on community management of rural water points. The manual addressed the pertinent issues of local water governance, separates roles of various players and provides basic technical information. Fully implemented, the manual will increase accountability and transparency of water management at the grassroots.

All stakeholder participants appreciated the effort of Haraad Reeb project and they highlighted it as the first model of its type in water sector developed for rural water management. All participants were optimistic that the policy manual will improve rural water sector management and will reduce the frequency of breakdowns and dependency on external support.

2.3. Finance the action plan, through training, provision of tools, subsidy of staff and other resources in each district. Develop a scorecard for participatory monitoring

In reference to the outcome of the water act assessment and water governance-into functionality study, the project has undertaken consecutive meetings with the ministry of

water at district and national level, and with district authorities after sharing and presenting the outcome from the governance-into-functionality (GIF) assessment. In these meetings, they identified 34 new water points for further assessment. The aim of this feasibility study was to assess the current technical, institutional and financial aspects and key stakeholders' capacity in relation to functionality, O&M and service delivery sustainability of the selected rural water supply facilities. The assessment also reviewed the existing community level management of rural water supply and the applicability of income generation to support long-term functionality of the water facilities. The assessment gave particular attention to water points that can contribute to revenues, like water pipe extensions/connections to HHs, solar lighting/mobile charging, shower and latrines, farm irrigation etc. especially in the dry seasons. The study commenced from 11th May 2015 and covered the following water points:-

Table 13: Village water point assessed. GIF/feasibility study

Table 2: The 22 village level water points assessed							
S	Location	Water point		S	Location	Water point	Region
1	Geedbalaadh	Borehole	M. Jeex	18	Xariirad	Mini water	Wadal
2	El-buh	Borehole	Sanag	19	Suuqsade	Mini water	Saxil
3	Warabood	Borehole	Awdal	20	Dhubato	Mini water	Saxil
4	Awrbogays	Borehole	Sool	21	Maydh	Mini water	Sanaag
5	Kaba Dheere	Borehole	Togdheer	22	Dadaadlay	Mini water	M Jeex
6	Caamale	Borehole	Sanag	23	Biyooly	Mini water	saaxil
7	Dameeroboob	Borehole	M jeex	24	Dalyare	Mini water	Sool
8	Gambadhe	Borehole	M. Jeex	25	Dheenta	Mini water	M Jeex
9	Jifto	Borehole	Sahil	26	Lawyacado	Mini water	Awdakl
10	Kalajab	Borehole	Sahil	27	Bone	Mini water	Awdakl
11	Siibakhti	Borehole	Toghdeer	28	Xamaas	Mini water	Sahil
12	Siixawle	Borehole	Sool	29	Hudisa	Mini water	Saxil
13	Cadigeedi	Borehole	M Jeex	30	Ceelxume	Mini water	Togdheer
14	Cadaadlay	Mini water	Todher	31	Kalbare	Mini water	Togdheer
15	Lafaruug	Mini water	Saxil	32	Yagoori	Mini water	Sool

16	Yayle	Mini water	Sool	33	Geelookor	Mini water	Togdheer
17	Gidhays	Mini water	Saxil	34	Ceel la helay	Mini water	Sool

From the assessed list, 13 water points (6 boreholes and 7 mini water points) plus 10 shallow water points from previously supported water points were selected to be financed for sustainability and better management. Each water point is identified and the specific support needed for sustained operation and maintenance is quantified. In total the project supported the listed 33 water points, the last column table 7 gives the support provided to the water point:-

Commented [UK25]: Where is this table?

Commented [H26R25]: Table 7

Challenges of Community Based Rural Water Supply Technical options

According to the FGDs carried out during the government- into-functionality tool (GIFT) study it has been found that In Somaliland many water sources have fallen into disrepair, limiting people's ability to get water during the dry season. Recurring droughts and resulting conflict made the situation worse, causing the weakening - and even complete breakdown - of traditional local water governance structures. A combination of factors, including the poor supply chain, poor government institutions and the poor technical capability to manage rural water supply in a sustainable manner has resulted in high rates of rural water facility breakdowns.

Main Challenges faces the Community Based Rural Water Supply Management are:

- Community lacks capacity to manage the scheme, particularly financial, O&M (major repairs) and long-term strategy.
- Lack of a cost recovery mechanism attached to rural water supply facilities
- Rural water supply committee based management is not well regulated with confusion of roles and responsibility
- Lack of effective supply chain
- New facilities were inappropriate or unwanted, or community was unable or unwilling to look after them.
- Public sector lacks the core capacities for regulatory enforcement, particularly the local, regional authority due to weak central government
- Environmental problems (Erosion, land degradation and hydrological Droughts)
- Poor community role in oversight at all levels of the water resource establishment
- Poor design and construction of new shallow wells resulting in breakdown by first year
- Communities are not willing to pay
- There are no specifically developed and functional supply chains.
- Poor borehole equipment and asset management
- Inadequate water storage
- Poor hygiene and sanitation practice

2.4 Provide 6 months' training scholarship support for 35 government technicians in water systems and maintenance

Skills assessment and training for technicians

Since the collapse of the Somali government in 1991, rural water technicians have not received training opportunities in water technology and most rural water point operators are doing things through trial and error which has resulted in huge losses and malfunction of machinery and equipment. System breakdowns are being fixed with the support of technicians in the central office of the ministry of water. As per the governance-into-functionality assessment report, 43% of scheme challenges are because of mechanical failure. Enhancing the technical capacity of rural water technician is one of Haraad Reeb II strategies to improve rural water operation and maintenance.

In Phase one, the project provided a six month training scholarship for 20 rural water technicians on water facilities O&M related skills at the Water Technology Institute in Hargeisa. The 6 month vocational course that endeavoured to produce fully trained village based water technicians included instruction on pumping, basic electrical circuits, solar power electricity, basic diesel engine maintenance, and introduction of water pumping technologies. Trainees received 90 hours in pumping modules, 100 hours in mechanical and 120 hours of electricity modules. The trainees were also provided practical and on-the-job training sessions. The training started on 15th September 2014 and was completed on 15th March 2015 for the first cohort. The training participants came from all Somaliland water points and were sampled from all regions, boreholes and mini water points. Among them were 6 participants from Sool region, 6 from Togdheer, 3 from Awdal region, 2 from Sanaag and 3 from Maroodiyeex region. The selection criteria was set up through MoWR and the selection process collaborated with the regional water authorities. Priority was given to water facilities located in remote villages, where most previously reported breakdowns have occurred.

The trainees had 10 days of practical job training and participated in the laying of the water pipe line connection and rehabilitation of the borehole in Burao town. On June 2015, a graduation ceremony was held for the first cohort of rural water trainees in Hargeisa and officials from the MoWR, Ministry of Education, members of parliament, Regional Governors, CARE Senior staff and representatives from other water development stakeholders attended. During the graduation ceremony the trainees were awarded a training completion certificate and start up technical tool kits. The main purpose of the ceremony was to publicise the Institute of Water Technology, attract the attention of the Somaliland Government officials and donors and as a source of motivation for the trainees.



Figure 12. Trained rural water technicians with hand tools for maintenance and repair

During the graduation ceremony CARE's Haraad Reeb project was recognized as one of the key development agencies working in water sector. Haraad Reeb project was appreciated for the significant support and contribution to the eastern regions, which has received little support in the water sector. The Minister for Water Resources awarded an appreciation certificate to the project for the excellent work done in helping rural communities to access clean, safe and adequate water.

The second cohort of trainees were also selected using the same procedures and criteria, and key criteria was the level of education of the trainee. Yet again the 15 trainees were selected from all Somaliland regions. The training started October 2015 and will end 31st March 2016

The second village based water technician’s cohort graduation occurred during the national drought emergency prompted by El Niño, and those graduates have been deployed to join the national drought response unit and help to rehabilitate the strategic water points across the country. Therefore, Haraad Reeb project was recognized for its active role in the water sector and the contribution of drought resilience in eastern regions of Somaliland as well as the drought emergency response in Western regions of Somaliland.

Finally, trained participants were deployed back to their locations and are currently handling respective water points and providing support to other neighbouring water points. The ministry of water officials reported the trainees are providing support and covered all minor repairs needed by the water points in the area including the water facilities in nearby villages. The appropriate limited tools in the rural area were also one of the challenges of the rural water facilities maintenance so the technical hand repair and maintenance tools provided to the trainees contributed to solve the repair and maintenance work in the rural water facilities. Another advantage of the village based water technician was their ability to easily assess the complexity of the breakdown; if they identify that breakdown as beyond their technical capabilities, they can still provide details of the damage and quantification of repairs required to the officials at the MoWR who will provide the needed support.



Figures 13-14. Village based rural water technicians at Water Technology Institute

Achievement against baseline

Table 14: Log frame showing baseline valued against expected Result 2

Indicators	Baseline	Current Achievement
The Water Act disseminated and adapted by key stakeholders in rural water supply	According to the FGDs conducted, whereas the District Water Officer (DWOs) knows the content of the Water Act, there is no trickle-down effect to the community.	<ul style="list-style-type: none"> - Water Act against reality on the ground assessment undertaken - Gaps of water act identified and action plan developed - Rural water management policy in line with the act developed and endorsed.

12 water systems managed through public-private partnerships in a cost recovery mechanism	Except for Plaza Water Company and Al Nafoore Water Company (both are Urban PPPs), there is no Rural PPP in place	- 31 water schemes are under pilot of PPP approach management.
Community technicians are able to service and maintain water systems.	30.4% of the sampled HH reported having water system breakdown lasting for weeks and beyond. 20.3% of the sampled HH said that they have a technician who repairs the system living within the region	<ul style="list-style-type: none"> ▪ 64% project targeted water points have dedicated technicians. ▪ 35 Village based water technicians have been trained and deployed back to their rural locations.

2.5 Conduct learning session of O&M Models

Organize an exchange visit to Kenya to see how the water boards function in Kenya as part of the PPP process

The project organized an exposure visit to Kenya for the officials of the MoWR in order to learn how the water boards in Kenya function as part of the PPP process. This particular exposure visit was for participants from Somaliland water sector to learn various best practices that resulted in a sustainable water supply system in Kenya, and was hosted by The Water Services Trust Fund (WSTF) of Kenya. The officials from WSTF explained to the exposure visit participants how the Kenya water sector works and its structure after the 2002 reform, including the roles and responsibilities of other institutions in the sector. Moreover, the participants visited WSTF projects in Kitui, Nyeri, Embu, Meru, Nanyuki and Isiolo counties. Thus, the exposure visit participants gained experience and knowledge in the holistic management of the functional and successful water scheme in Kenya, including in North Eastern province of Kenya which also experiences prolonged droughts and acute water shortages.

Box 3. The Water Services Trust Fund (WSTF) of Kenya

The WSTF is a State Corporation under the Ministry of Environment, Water and Natural Resources (MEWNR) and was established by the Water Act, 2002 and mandated to finance access to water and sanitation in underserved areas. The Fund is committed to ensuring compliance with the provisions of Water Act, 2002, among other regulatory and supervisory corporate governance requirements, which is an essential to the establishment of a corporate governance framework in the Fund is a formal governance structure with the Board of Trustees at its apex. The structure is designed to ensure an informed decision making process based on accurate reporting to the Board. The Water Services Regulatory Board (WASREB) is a non-commercial State Corporation established in March 2003 as part of the comprehensive reforms in the water sector. The mandate of the institution is to oversee the implementation of policies and strategies relating to the provision of water and sewerage services. The WASREB sets rules and enforces standards that guide the sector towards ensuring that consumers are protected and have access to efficient, affordable, and sustainable services. The Water Services Regulatory Board has put in place an information system and publishes an annual report comparing the performance of water and wastewater companies, thus increasing transparency and accountability.

Moreover the Water Resource Management Authority (WRMA) works also to develop principles, guidelines and procedures for the allocation of water resources; implemented through regional offices of the authority based on drainage basins (catchment areas) assisted by Catchment Area Advisory Committees (CAACs). At the grassroots level, stakeholder engagement is through Water Resource User Associations (WRUAs).

The main lessons learnt during the 10 days of the visit was that the Kenya water sector is run by a range of institutions under the Ministry of Water and Irrigation which provides strategic lead and policy development, while other institutions are responsible for the funding, water resource management and water supply service delivery regulatory framework implementation; more importantly the water resources are managed separately from the water supply service delivery.

The institutions within Kenya water sectors that participants came across during the exposure visit were:

- Water Services Trust Fund (WSTF) - Kenya
- Water Resource Management Authority (WRMA)
- Water Resource User Associations (WRUAs) – Supply
- Water Services Regulatory Board (WASREB)

The exposure visit participants found the work of the Water Services Trust Fund-Kenya and Water Services Regulatory Board (WASREB) interesting, and that similar structures could be considered in Somaliland as part of the water sector management structure.

Ministry of Water Resources (MoWR) exposure visit lessons learned workshop was conducted on 1st – 3rd October 2015. The aim of the workshop was to review the lessons learned from the exposure visit to Kenya and discuss how MoWR can adopt some of the successful management structures and approaches here in Somaliland through reform. The participants also discussed and outlined a strategic, operational reform of the ministry. The ministry staff and exchange participants were very impressed with the lessons learnt and underlined the necessity for the MoWR to undertake reform to streamline its operations.

2.5. Use the CARE Governance-into-functionality tool to assess management approaches in 12 boreholes and 19 shallow wells in the target areas

Apart from stakeholders sharing experience meetings and workshops, it has been agreed by the ministry and CARE to assess and explore the current scheme preparedness to future sustainability, and identify areas that need attention from scheme supporters or government. A country-wide joint survey was done by CARE and the ministry taking sample of 12 boreholes and 9 mini water system using government- into-functionality tool (GIFT). This tool provides a snapshot of the governance and functionality status of water and sanitation schemes. The table below shows the schemes visited and assessed with respect to the geographical locations in all Somaliland regions.

Table 15: Water points assessed through Governance –into -functionality

Region	Boreholes	Mini-system
Maroodi jeex	G.balaadh, Dagu	Cadaadlay, cabdigeedi, dhubato, dheenta

Awdal	Kalawle, Waraaboodka	Lowacado. Boon, xariirad
Saahil	Jiifto, Kalajab (fardeero)	Xamaas, Suuqsade , hudisa
Togdher	Kabodheere, sii bakht	H. Gubatoxi, ceelxume, dhoqoshay
Sool	Siixawle, Awrbogays	ceeldhaab, Higlo, Gamabadhe
Sanaag	Ceelbuh, Carmale	F. Gaab, Maydh, Rugay

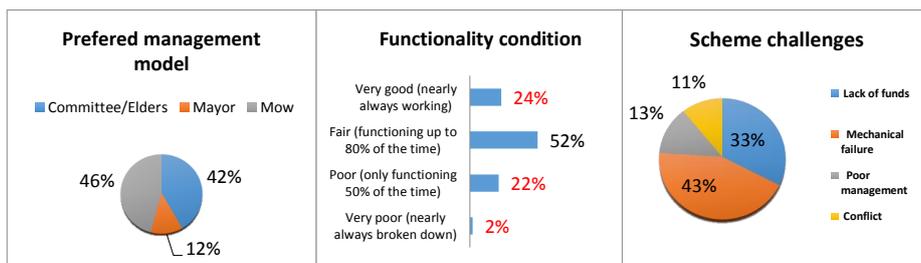
Objectives of the activity were to assess the current management capacities at water points, understand existing institutional and current practices on water governance and management, study the strengths and weaknesses of the water user associations, examine how consumers pay for water services and the current level of private sector involvement in water services provision.

The assessment found that most schemes built by agencies are managed by water operators. As shown in Figure 15 below, 75% of the 21 schemes assessed reported is currently under the control of operators who are not accountable to any institutions. The operators came into positions as the inheritance process from their fathers or delegated by the NGO or community on temporary based. Operators are not accountable to anyone but believe that the water point belongs to MoWR, and the community and ministry believe that operators are the main actors for water point management and should be considered when developing the management model. Secondly, the assessment also noted that communities preferred the ministry of water and the local authority involve the rural water governance to take their role: 88% of people interviewed preferred water management go under MoWR or District Mayor. The assessment also showed that the ministry is the main actor for financing when schemes breakdown, though communities sometimes raise funds as well.

Commented [UK27]: How were these calculations done? With only 21 schemes included, how were you able to get 1%, 7%, 12%, or 75% (5% makes sense, since that would be 1/21)

Commented [H28R27]: 136 respondent were interviewed from 33 scheme water points. So the calculation is based on 136

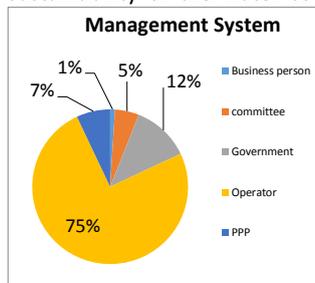
The outcome of the data collected has been presented to the MoWR of Somaliland. The



Figures 15-18: Current management system, preferred management, common functionality conditions and scheme challenges.

presentation meeting was attended by high officials, including the DG of the ministry. Based on the data collected and the report produced, it was agreed to develop a sustainable management system model in compliance with the water act and suitable to the context and the reality on the ground.

Major areas highlighted the assessment include the four elements of good governance - participation, inclusion, accountability and transparency – which are critical for long-term sustainability of the water sources. The report also illustrated the existing management systems, scheme financing methods, scheme functionality conditions and community priorities on water point governance.



Two planning meetings took place in Hargeisa to decide how to develop improvement plans for the selected boreholes and mini water systems. It was agreed to carry out a feasibility study for 6 boreholes and 10 mini water systems to determine what basic improvements are needed by the scheme. Program engineers, resource

persons from the ministry and the communities developed plans for each site. CARE subsidised the plans through the provision of tools, extending scheme facilities and training operators.

2.6. Agree on an management improvement plans for 27 mini water systems and 6 boreholes , covering all key areas of good rural water management based on the CARE Governance-into-functionality tool; including training, provision of tools, development of improved PPP contracts

Most of the rural water supply project failures are attributed to institutional, rather than technical, inadequacies, specifically poor regulations and insufficient support to community based water point management. Haraad Reeb project, in collaboration with professionals from MoWR, used the CARE approach Towards Sustainable Operation and Maintenance of Rural Water Supply. The approach suggests a shift from the traditional project facility base to a program service base for sustainable O&M of rural water supplies, with an effective management model consistently applied and government policies and strategies supporting community involvement in rural water supply management.



After consecutive assessment and consultation, the project, in collaboration with MoWR, conducted Community Based Rural Water Supply Management Models workshops across Somaliland, aimed at reviewing the existing community level management approaches of rural water supply in Somaliland and developing the most suitable community based rural water supply management model. Rural water operators, elders, heads of village, district officers and ministry of water representatives were invited to recommend management modality tailored to the water act and the way forward.

As a result, the Community Based Rural Water Supply Management Manual was produced; the manual will help the operators and water point managers to increase their knowledge in the technical and financial management of their water points and systems. The management model is based on findings from the GIFT assessment outcome, and experience from water sector stakeholders. The manual clearly defines the management modality with a rural PPP approach and requires minimum operational procedures. The manual is the first step towards capacity building at

Figure 19. CARE staff providing Coaching to Community

the lowest level to enhance improved service delivery, which is based on cost recovery and a sustainable management concept.

The manual was validated in a workshop held in Hargeisa where all water stakeholders participated and shared with WASH cluster members and then endorsed by the MoWR as the official national government backed Community Based Rural Water Supply Management coaching manual. To upgrade water supply management the project has established income generating side businesses to improve their operations and maintenance and for the platform prepared to apply the PPP management model.

The Dissemination of the Rural Water Supply Manual

After the endorsement of the Community Based Rural Water Supply Management Manual, CARE international facilitated the printing of 450 copies of the manual for the pilot dissemination campaign. Dissemination was conducted at gatherings across the country, facilitated by project management teams coupled with senior MoWR staff members; attendees included participants, regional governors, regional water authority coordinators, mayors, councillors, rural water point operators, village elders, women and youth representatives. Additionally the minister of water resource participated at the manual dissemination event in Hargeisa, while the Director General of MoWR participated in the event in Gabilay.

Purpose of the Dissemination Events

Four different cities hosted a total of 180 participants from 32 project locations in four regions for dissemination events. The purpose of the events was to understand, apply and adapt the rural water policy manual and other related documents (drafted by the MoWR with the assistance of CARE International) and contribute to the validation of the Somali translation of the rural water management manual. These activities ensure that the ministry will have an effective and easily understandable document which is fit for sustainable rural water supply.

The Rural Water Policy manual will contribute to the realization of sustainable management of rural water supply by enabling the water management unit, the district water officers and district authorities to decentralize water management to the lowest possible level, thus increasing the benefit of the water plant.

Two days after the manual dissemination events, facilitators carried out comprehensive site visits for more on-site training and support on the practical utilisation of the manual.

Finally, a triangle agreement was signed between government, community and the water facilities management unit, further contributing to the sustainability of the manual's use.

2.6. Conduct quarterly support visits to each of the sites, and provide training and support for implementation of the improvement plan

Quarterly support visits were conducted to monitor the progress of the water sources, facilities improvement work and the operation and maintenance of shallow wells with solar energy. The financial record keeping for the income obtained from the sale of power has been also been reviewed. CARE representatives visited the water points and reviewed the improvement of the shallow wells (i.e. permanent functionality of piping and pumping system), community level management (i.e. income record keeping) and operation and maintenance responsibility for the sustainability of the water plant. During the monitoring sessions, capacity gaps have been identified as CARE representatives have trained the operator in record keeping and other basic management elements. Moreover, necessary

operational tools have been distributed such as electric mechanical tools and cash books and support items such as electro-metric watches, testers, pens, rulers, gloves, pliers and cutters, wooden hammers, screw sets and overcoats for the water point. In some cases during the support visits, external technical engineers were invited to go with CARE project staff to support the operator on troubleshooting of mechanical issues that the operators wouldn't be able to solve.

Support visits helped the water point operators to overcome several challenges that arise from the daily routine water point operation and operators received guidance from CARE representatives and technical backstopping from the contracted technical experts. Without these visits many water points would not be able to supply water sustainably to their residents

2.7. Improve government drought disaster preparedness planning for the WASH sector

The main objective of the Haraad Reeb project was to contribute to the resilience and drought recovery of rural communities in Sool, Sanaag and Togdheer regions and reduce their vulnerability to future droughts with a specific focus on the role of vulnerable and female-headed households. As part of the implementation of the Water Act, CARE provided a capacity building training for relevant MoWR staff to ensure adequate delivery and coordination during emergencies in Sool, Sanaag and Togdheer regions that are prone to drought; CARE also played a key role in the coordination mechanisms within the WASH sector; and ensured that the WASH sector has existing early warning systems at the national, sub-national and community levels. In addition, the Ministry of Water Resources in collaboration with Haraad Reeb project worked to put in place the National Hydrological Droughts Preparedness Guideline and Droughts Early Warning System Manual, ensuring the guidelines complied with the Water Act and Water regulatory framework of Somaliland.

The response to drought is part of the Ministry's strategy, and also required coordination with other stakeholder organizations, such as the National Emergency Relief and Disaster (NERAD), WASH cluster member organisations and all relevant government ministries.

Accordingly, a consultation workshop on the National Hydrological Droughts Preparedness Guideline was conducted 1st June 2015 with participation from all stakeholders in the sector. The aim of the workshop was to validate the outcome of the drought preparedness plan study and to address the current policy, procedures and regulatory gaps by reviewing the government drought resilience and preparedness plan; this facilitated the preparation of multi-sectorial drought resilience plan.

Drought is recurrent phenomena in Somalia/Somaliland, and takes place every five or ten years. Hence, the study revealed that in the past two decades; the Agra/pastoral communities in Somaliland did not apply any strategic plan to make them resilient to the impact of recurrent droughts.

The purpose of the study was to review the Somaliland water regulatory framework on drought resilience and collect data on traditional community early warning system methods and their drought coping mechanisms. The study then came up with 3 years plan/strategy on building communities' drought resilience.

Concerned stakeholders, mainly the MoWR, NERAD, regional coordinators and other resource people from the drought prone regions, contributed to the study and provided valuable information which will be used for drought resilience.

The study provided relevant strategic activities based on three crucial stages for reducing the drought disaster impacts:

- 1) Early Drought Warning System as a prevention approach
- 2) Establishment of Rapid Response Unit to provide the timely and effective support
- 3) National Hydrological Droughts Preparedness Plan Guideline.

The study also produced a drought resilience manual to guide field workers, regional coordinators, and the agro/pastoral communities in the drought prone areas to use in mitigating the impacts and effects of the droughts.

Using those tools, Haraad Reeb project team successfully predicted the impact of the drought prompted by 2015-2016 El Niño with the collaboration of MoWR and NERAD, and were able to provide technical support to CARE Somalia emergency team. Together, they conducted the first Rapid Drought Impact Assessment, the report for which was widely used by the development partners to respond to the drought emergency.

Support provided to the Rapid Drought Response Unit of the MoWR

The Haraad Reeb project team closely worked with the government to put in place a plan for the drought disaster preparedness plan, which included carrying out training workshops to sensitise communities on coping strategies in the event of drought. As part of the sensitization, the community awareness was raised for water conservation and proper use of the household safe water storage facility, water usage, sanitation and hygiene in disaster situations.

CARE also supported the government in preparing systems for “emergency mode” to re-establish, in the shortest time possible, a minimum of service to reduce impacts on communities. Therefore, CARE supported the MoWR to establish the Rapid Drought Response Unit in order to respond to the El Niño prompted hydrological drought, as MoWR was assigned to rehabilitate all the strategic water points (mainly boreholes) and ensure that the strategic water points were functional during the drought September 2015- March 2016.

Additionally, CARE provided the MoWR a crane truck. The crane truck is operating by a team of a senior water technician plus the junior water technicians that have been recently graduated from the Water Technology Institute, and was also equipped with maintenance and repair mechanical-hand tools, equipment including fast moving spare parts of the diesel engines and solar powered water supply systems.

The Rapid Drought Response Unit so far rehabilitated 21 water points across Somaliland.

Monthly monitoring sessions

The findings from assessments of the water act influence in the rural area, the water governance and functionality and O &M clearly show the absence of a management guide in the rural area, that the water act did not fill the gap and that the breakdowns of the water system are not only because of technical or



Figure 20. Crane truck provided by CARE ob borehole rehabilitation

financial capacities, but the lack of proper rural water management. All of these factors are thus contributing to the lack of sustainable rural water access in Somaliland.

To involve them in the process, Haraad Reeb II project facilitated project site visits for MoWR to show the progress of project achievements. The Director General of MoWR, who is the technical lead in the ministry's leadership, visited the project sites. The aim of the visit was to do a situational analysis of rural water, current rural water management in practice against assessment findings, and Haraad Reeb intervention modality and get feedback from the community.

As described in activities 2.3 and 2.4, the project identified 33 water points (6 boreholes and 27 shallow wells) for training, provision of tools, subsidy or other support to improve management of water points in line. The selected water points, which represent all regions in Somaliland, were to develop a uniform management guide to all Somaliland rural water. This activity covered a very large area and many water points which were far from each other and the assessment was to support the overall sustainability of the operations and maintenance of the selected water points. The ministry of water team and district authorities conducted monitoring of the selected and assessed water points to support the project team and reach consensus with the beneficiary communities on the interventions to be undertaken.

The project also collaborated with three district water officers who provide 30% of their time for the implementation of project activities. The district water officers conducted monitoring visits on a monthly basis to one or two water points and provided technical and management support to project target water points. Additionally, the project team conducts frequent supervision activities to follow up on the on-going activities and monitor the progress of the project activity.

Care Technical advisors (gender advisor, peace building and governance advisor) also provide the necessary technical guidance and support to the project team in the day to day implementation of project activities by visiting project sites and discussing with the ministry of water and communities to analyse mainstreaming the cross cutting issues.

EXPECTED RESULT 3: Sanitation and hygiene practises improved in the rural community

3.1. Community Led Total Sanitation (CLTS) training as Training of Trainers (TOT)

CARE recognized that the Community Led Total Sanitation (CLTS) is an approach that could be used to completely eliminate open defecation in developing world communities, though the approach is still fairly new to Somaliland with the attendant cultural sensitivity.

Therefore, to initially apply this approach, the Haraad Reeb project team hired an external WASH expert to provide 13 village community promoters of CLTS methodology for mobilizing communities to become open defecation free (ODF).

The respective village elders, youth, men and women key figures were among the village community promoters, particularly the activists and enthusiasts who could emerge and take the lead during CLTS processes in their villages. Some of the village community promoters played a significant role beyond their villages, and triggered and provided encouragement and support to communities other than their own.

Therefore, the 13 village community promoters who participated in the 7 day workshop on W methodology/techniques Training of Trainers (TOT), conducted a field testing session using the CLTS approach, resulting in production of CLTS activity protocol manuals applicable for Somaliland. The trained hygiene promoters conducted 13 community level sanitation awareness education in 30 project target villages, for a total of 90 villagers receiving hygiene promotion training (CLTS approach). The facilitators developed tools and techniques for hygiene and sanitation behaviour, attitude change at community level through organized hygiene conversation meetings focused on community behaviour changes and how to ensure real and sustainable improvements – by investing in community mobilization, and shifting the focus from toilet construction for individual households to the creation of open defecation-free villages. Therefore, during CLTS awareness campaigns, village community promoters, coupled with the Haraad Reeb project team, used the community mapping exercise which was one of the main tools for involving all community members in a practical and visual analysis of their sanitation situation. A simple map of the community is drawn, usually on the ground, and all households were asked to locate their homes, indicating whether they have latrines and where they go for defecation. The map can highlight how people are defecating virtually on each other's doorstep, how far they have to walk to defecate (and related safety issues), and how water sources are at risk of contamination.

Afterwards, the walk through the village's open defecation areas was one of the useful tools utilized during the monitoring sessions of the progress of the village CLTS activities. One of the culturally sensitive issues was asking questions to establish who uses which areas for defecation, where women go, and what happens during the night or in bad weather. When people see the extent of open defecation, and that there are no faeces-free areas, this usually creates a desire to stop open defecation.



Figure 21. Walk through the village's see if open defecation areas in HabariHeshay Village during monitoring

The existing type of latrines were observed during the village walks and it was found that more than 25% of the families had simple uncovered pit latrines. The food and shit exercise triggered to illustrate the contamination of food through flies. It makes clear that no one, even

those who have a toilet, are protected against the impact of open defecation on health and that what is needed is an open defecation free community.

Moreover, CLTS is based on the principle of triggering collective behaviour changes. In this approach, communities are motivated to take collective responsibility and actions to adopt safe and hygienic sanitation behaviour and ensure that all households have access to safe hygiene and sanitation best practices.

The CLTS application strategy enabled some communities to understand and realize the negative effects of poor sanitation and empowered them to collectively find solutions to their sanitation situation.

At the end of CLTS campaign and mass community mobilizations, the communities identified bad practices and learned positive behaviour changes through increased understanding of transmission routes and occurrences of various infectious diseases including cholera, typhoid, giardiasis, ascariasis and schistosomiasis. The communities also realized ways that hands transmitted diseases, through person-to-person contact, insects such as flies, water, crops such as vegetables, fruits and implication of human faeces in soil.

Community ODF Verification and Certification Process Field Work

The community ODF certification verification field work was undertaken in February 2016 in Ainabo district of Sool region and Burco districts of Togdheer Region by representatives from all stakeholders with the support of the project WASH technical advisor.

The main objective of the community ODF certification verification field work was to verify the community ODF status through a district level verification and regional level declaration in the 30 selected communities. Hence, CARE Haraad Reeb II project team worked with the authorities to review community self-verification of ODF community; 9 communities were selected for the final community ODF status appraisal.

The first step in the appraisal process was the Community Verification following district level verification and regional level declaration. In the case, the appraisal team identified 5 communities which qualified for ODF status criteria as a result: Qoryaaley, Eil-dhaab, Harosheik, Ali Esse and Waadamagoo.

Table 16: The summary of the five ODF declared communities

Location	Description of the declaration	Status
Qoryaaley	There is an outstanding, highly motivated sanitation committee, who carry out a regular environmental sanitation campaign, hence, no fecal matter have been found during the transect walk with the community.	I ODF
Eil-dhab	A community with remarkable behavioural change that transformed their approach towards hygiene and sanitation particularly the open defecation.	II ODF
Ali Esse	Knowledgeable community leaders that handled the matter with passion of linking health and environmental sanitation.	III ODF
Harosheikh	A Collective community driven efforts and willingness to eliminate open defecation.	IV ODF
Waadamagoo	Sound ODF understanding of the community health promoters,	V ODF

The Communities have been appraised based on the below guideline.

For a community to be certified ODF, the following characteristics should exist in the community at the time of the assessment:

- No visible signs of human excreta within the community (this means there should be a total absence of faecal matter that is visible to the eye and can be accessed by houseflies. This includes faeces in toilet facilities, chamber pots, surrounding bushes/shrubs, refuse dumps etc.
- All community members including children dispose of their faecal matter in an acceptable manner that does not perpetuate faeco-oral transmission. This does not necessarily mean that everybody should have a latrine.
Acceptable manner in this context means faeces:
 - Should be covered
 - Not accessible to flies
 - Should not be stored in a polythene bag
 - Put in a latrine
 - Buried deep enough to prevent animals from exposing it.
- The community has developed and is implementing a strategy or procedure that ensures the sustainability of their ODF status. This includes local regulations to discourage Open Defecation, and to promote the construction and use of latrines, especially household latrines.
- A clear Action plan exists towards improving sanitation coverage and general environmental sanitation in the community. This includes hand washing with soap and other hygiene practices.

The process of the certification

In early February 2016, there were 5 communities who were declared ODF. The Appraisal team has worked closely with the regional, district authorities and the Community Leadership to plan for the ODF Celebration, an event that is given as much publicity as possible to draw attention to it and the community's ODF Certificate which is presented to them on that date. It was also planned that the community should be supported by the Appraisal team to erect a sign stating their ODF status and their commitment to remain so. This sign should be boldly placed at the entry into the community or at a conspicuous location in the community where all and sundry will see it.

Five communities have been awarded the ODF certificate, and significant improvement has occurred in communities' behaviours and attitude towards hygiene and sanitation. Additionally, 15% of people observe the four key hygiene practices (washing hands after defecation, after cleaning a child's bottom, before eating and preparing food).



Figures 22-23. A community leader displays ODF certificate (L) and shows her latrine constructed through CLTS (R) at Quryaale village, Togdheer region

3.2. Raise awareness in water sanitation and hygiene

Humanitarian organizations in the WASH sector have been implementing hygiene and sanitation education along with water projects since Somalia's former central Government. Various approaches were applied, including CLTS approaches, though some improvements are seen in the evaluation. However, there is still a gap in good practices of hygiene and sanitation. CARE's intervention, with BMZ support, used various approaches to enhance target communities' hygiene and sanitation practices and about 500 latrines were constructed in the project area. In phase II, the project targeted behavioural change and facilitated taking collective responsibility and actions to adopt safe and hygienic sanitation behaviour and ensure that all households have access to safe hygiene and sanitation best practices.

The purpose of the training was to provide an in depth training to community health promoters on hygiene education so that they can provide hygiene sanitation education and campaigns in their respective villages. Health promoters were provided with trainings on health hazards of poor hygiene practices, mobilization techniques, and different kinds of community messages and were assisted in the development of mobilization action plans. In each village, weekly hygiene and sanitation education and cleaning campaigns were undertaken where village inhabitants did cleaning campaigns in the village and surrounds. Village leaders, teachers, students, elders and women groups participated in the exercise while the promoters conveyed pre-prepared hygiene and sanitation education message using loud speakers. The campaigns were held in all villages and it was estimated that the messages reached over 27,000 persons in the 30 target villages. In total 390 hygiene and sanitation education and cleaning campaigns were undertaken in the 30 target villages.

3.3. Production of hygiene and sanitation books- IEC

Because of the low literacy skills in target communities in the project area, the project used oral and pictorial communication to convey hygiene and education messages. Apart from hygiene promoters' education campaigns, the project designed and produced 4,500 pictorial booklets on hygiene and sanitation education and disseminated them to 30 villages at HH level and in public places. The booklet holds various pictures that show health hazards of poor WASH and types of diseases that poor hygiene and contaminated water can cause. Some of the pictures describe good hygiene behaviours and bad hygiene behaviours and other pictures also show proper hand washing after use of the toilet.

Table 17: Achievement against baseline

INDICATORS	Baseline	Current
5 villages certified as "open defecation free" communities	72.9% of the sampled HH reported that they have a latrine. Out of this proportion, 74.3% use the latrine during the day and 78.4% during the night.	- 80% of adults prefer latrines as their defecation site - 1292 community sanitation groups, village leaders, women groups, religious leaders, school teachers, students trained in CLTS

Commented [UK29]: What is BMZ?

Commented [H30R29]: Federal Ministry of Economic cooperation and Development- Germany

Commented [UK31]: The indicators here don't align well with the baseline and current statuses, i.e. numbers versus proportions. Can we match them up?

Perhaps the indicators should change to reflect the data being presented, i.e. adding an indicator about use of soap

Commented [H32R31]: Need to review the raw data of baselien

		<ul style="list-style-type: none"> - Voluntary cleaning campaigns are ongoing in 15 villages - Individuals started digging pit latrines
15% of people who observe the four key hygiene practices (washing hands after defecation and before eating)	75.1% wash their hands after defecation and 10.6% wash their hands before eating.	<ul style="list-style-type: none"> - In Fadigab villages in most of the home latrines soap is available for hand washing - 66% of hand wash respondents said they washed hands after defecation and before eating which is a religious obligation

V. APPRAISAL OF IMPLEMENTED ACTIVITIES

Target group reached/involvement/cooperation

The project targeted inhabitants in 6000 HHs in 34 villages in Sool, Sanaag and Toghdeer regions. Because of the nature of the area and the global climate change, 36000 – 42000 people living the project target area are at risk of water shortage if there are delayed rains. In this reporting period, the project has reached 13200 HHs which 220% of the target group. These beneficiaries have protected sustainable water supply, 24 hours a day for seven days. The project has so far supported approximately 47,000 women and girls.

As described in the narrative, the project implementation was participatory at all levels. Beneficiaries, partners and staff were collaborating in each step of the project with clear roles and responsibilities, which was facilitated by an MOU between the project and ministry of water resources with clear terms, defining each party's roles. There were also ministry staff attached to the project at national, district and regional levels that provided 30% of their time to the project. Communities were also part of the process, and contributed in kind through water from the wells and labour.

The quality of the food/relief items

N/A

Relief Items

Table 18: Relief items distributed

	List of items	Total No
1	Wheel barrows	580
	Washing basins	580
3	Jerricans (20 litres)	1160

Commented [UK33]: It would be helpful to explain how those outside the target communities were reached/included

Commented [H34R33]: The project reached more people against the target people. In the last year of the project, drought hit some regions, so the project provided support to more community

4	Barrels(120Lits and 60 litres)	820
5	Laundry soap in cartons (50 /carton)	84
6	Water tanks	177

Adequacy of the new infrastructure

The project aims to increase resilience to drought for the target population by increasing access to water through constructed water supply infrastructure.

The constructed project water infrastructure implemented in the project area were targeted to fill gaps in rural water supply systems and addressed problems identified in the project's need assessment. The infrastructure implemented in the targeted area was designed to contribute to the operation and maintenance of rural community sector to enhance drought resilience of the targeted communities.

The water infrastructure improved the following six areas that were hindering the smooth operation of rural water supply schemes

1. **Rebuilt reliable water source:** To increase water accessibility and strengthen the resilience of the communities to drought, the project improved 31 water supply infrastructures. The water wells were re-excavated and sediments removed. The walls of the wells were relined with concrete and elevated water storage tanks constructed to avail water at all hours.
2. **Mounted water pumping system:** Preferably using renewable energy, to reduce water pumping costs, the pumping system continuously recharges the water tank and the community gets water from the storage at any time.
3. **Improved water connection:** Connections were improved to HHs or constructed water kiosks to ease access water and minimize water fetching time.
4. **Strengthened self-running mechanism:** The frequency of water supply breakage and discontinuity is caused by poor operation and maintenance, especially repair of the system. The project established a mechanism of revenue generation outside of the water supply, like rural lighting service, mobile charging, HH water connections and sanitary units.
5. **Supported through establishment pumping system:** The establishment of the hybrid mini power system and water supply is contributing to the sustainability of clean water supply for 31 project target communities. The power generation unit provides lighting energy to the business premises in the villages and power supply to pump water to elevated water storage tanks and continuously supply clean water to the community. Additionally, the system generates income from lighting charges, which is then used to run the system and maintain when needed.

6. **Provided water storage tanks:** Thirty-one villages achieved increased storage capacity with 8 cubic meter water storage tanks. The average size of the project target village is about 200 HH; the average household water consumption per village is then calculated at 120 litres per day if the water tanks of the villages are filled thrice a day.

The system has also improved the hygiene and sanitation of the communities since the target villages get clean water from protected water sources. The monitoring reports observed that 80% of HH of beneficiaries get water for cooking and drinking from the protected source of water, which indicates a decreased exposure to water borne diseases.

Qualifications of the Country Office to implement this project

CARE is a leading humanitarian organization fighting global poverty. CARE places special focus on working alongside poor women because, equipped with the proper resources, women have the power to help whole families and entire communities escape poverty. CARE seeks a world of hope, tolerance and social justice, where poverty has been overcome and people live in dignity and security. CARE's mission is to serve individuals and families in the poorest communities in the world.

As a country office, CARE Somalia has qualified staff with many years of experience in implementing WASH projects. As an organization, CARE has a reputation for good management and accountability of resources. There is a department that monitors projects to ensure quality.

CARE has been working in Somalia since 1981, implementing a varied portfolio of projects in all regions of the country. CARE portfolio is built around three main sectors: Rural women development, urban youth empowerment, emergency relief and economic development initiatives, with a geographic focus on Puntland, Somaliland and south central Somalia. Many of CARE's past projects were stand-alone interventions targeting different groups of people and often did not sufficiently address the deeper causes of poverty. Having identified these two weaknesses in programming, CARE undertook a fundamental change in its development approach – a project to program shift. Within the Rural Women Program there are ten projects:

- a) *Horumarinta Elmiga* (Education for Empowerment through Cohesive and Harmonized System)
- b) SOMGEP (Somalia Girls Education Promotion Project)
- c) *Iskufilnaasho* (Towards Self Reliance II)
- d) *Deegaankaagu waa noloshaada* (Your environment is your life) - NRM
- e) Basic and Sustainable WASH for the MDGs - Puntland State, Somalia
- f) Sanaag Resilience Project
- g) Strengthening Governance and Peace Building in Somalia
- h) SOMREP (Somalia Resilience Project)
- i) Foundation for Peace
- j) *Haraad Reeb* (Quenching the Thirst) – which is the subject of this report
- k) Community Driven Development in Sanaag region

CARE's program strategy for its rural women program is based on an explicit theory of change, moving from the things CARE wishes to achieve to the activities and actions needed to achieve them. The program strategy is grounded in CARE's research process and is linked to a logical and coherent long term (10-15 year) impact goal.

Adequacy of the methodical approach

(a) Collaboration with national, regional, local governmental and civil society structures designated

Haraad Reeb II work closely with the MoWR and with district authorities. The process of project planning is participatory at national, district and community levels. The engagement in the project design and implementation with MoWR, district and community level facilitated stakeholders' deep understanding of the project concept and its component. The project design and the level of the involvement of the MoWR in the project highlighted the importance of operation and maintenance for the staff. Sustainability of operation and maintenance of rural water was one of the key challenges in Somaliland water sector. Introducing cost recovery mechanism and training of rural water technicians was a major breakthrough for the sustainability of rural water sector.

Generally CARE and particularly Haraad Reeb project has close collaboration with the WASH sector and consortium networks. The project networks with emergencies network at national and regional level, it collaborates with water sanitation cluster networks and participates in the monthly and quarterly meetings to share experiences, avoid overlaps and maximize the project impact using best practises.

Project stakeholder's involvement

The district authorities and village leaders were fully involved in all the project stages. Haraad Reeb project signed an MOU with the MoWR which defined the roles and responsibilities of each stakeholder with direct involvement in the implementation of the project. The project also had working commitments with district authorities. The MoWR also provided four ministry staff from the three target districts and one from national level to provide 30% of their time to Haraad Reeb project.

The project was given a certificate of appreciation for excellence in partnership and good working relationship with the ministry at all levels.

Project contribution to national strategies/policies

To contribute to national strategies and policies, Haraad Reeb project worked with the Ministry of water to operationalize the National Water Act. The Somaliland national water act was approved in 2012 by the House of Representatives but the assessment done on its implementation found that the act is not being implemented in the rural areas and is not even known. The main reason is because the water act only provides general principles which are not useful in the implementation of water management.

After water management situational analyses and in consultation with MoWR, Haraad Reeb project facilitated the development of rural water management guide which will contribute to rural water supply sustainability and hence improvement to drought resilience. The rural water management manual provides general guides and standards for the management of rural water supply with clear roles and responsibilities for community, villages and water management committees. The manual proposes a PPP management model where the water points will be managed by village head man, water technician and one user member.

Synergies with other measures

As explained in the project proposal, in mid-2010, CARE Somalia initiated a change in its program structure and strategy - from working in technical sectors to working in more holistic programs focusing on particular 'impact groups', shifting from a Project to a Program (P2P) approach. By choosing a programme over a project approach, CARE implements projects in a cost-efficient manner through sharing resources and infrastructure between projects such as office space and operational, managerial and technical staff costs.

CARE provides its project support to pre-selected villages to address the multi-sector needs of the rural women population in these areas and maximizes the impact of the intervention. This means one community can benefit from a number of projects. For example a number of communities are benefiting from five project interventions in various sectors: Haraad Reeb support in water and sanitation sector, DFID funded education project supports education sector, MOFA Netherlands funded Foundation for Peace project providing governance and peace building support, MOFA Luxembourg funded Towards Self Reliance project focuses on Village Savings and Loans and EC funded youth employment project. CARE presence is visible in the communities under intervention, water and sanitation sector, education sector are also visible, village leadership and peace stability has been revived and livelihood sector movement is diversified.

Commented [UK35]: What is MOFA?

Commented [H36R35]: Dutch Ministry of Foreign Affairs

Commented [UK37]: What is EC?

Commented [H38R37]: European Commission

Adequacy of the financial means of the project

The project activities have been reinforced with other projects being implemented by CARE in the target villages leading to better project outcomes. The program design also allows for leverage of project resources leading to better value for money due to reduced program operational expenses and staff time. The Program management structure for the Haraad Reeb is capable of delivering the project outputs within the given timeframe and has synergy from other projects within the same geographic focus to make a lasting change on the impact group defined by the Rural Women program. Haraad Reeb program, viewed in the total context of the Rural Women Program delivers a sustainable WASH package to communities. This ensures better outcomes and impacts and the leverage of resources also ensures value for money.

How sustainable are the particular project results and impacts?

The project intervention addresses four key areas on water operation and maintenance sustainability. Water infrastructure of the targeted water points are provided support in the construction and rehabilitation of the water well, the water storage and distribution systems, water pumping facilities and in some places with renewable energy.

The project addresses human resources in water related technology, and provides electricity, pumping and mechanical skills. The trained technicians provide all necessary technical support of technical related matters. The frequency of water point breakdowns will be reduced because all minor repairs can be solved by the trained technicians.

The other gap that the project filled is in the issues related to financing the water point. Because of the poor management or because of limited capacity of revenue generated from water, most of water points are faced with challenges related to the running. To overcome this challenge the project has supported water points to establish side business that generates revenue to run the system.

The development of the water management policy has also contributed to the smooth running of water supply and improved coordination between water users, suppliers and government institutions.

Experience gained from the project and lessons learnt

The lesson learned from exposure visit to Kenya water sector was very useful especially the segregation of the water supply and water resources development functions within the ministry. The ministry had previously given priority to the drilling for ground water but after the visit their priority has changed to harvesting of rain water.

During the visit the team also learnt that the sustainability of operation and maintenance was not only because of financial resources, but also that poor regulatory framework significantly contributes to the lack of sustainability. Provision of training to rural water technicians has also contributed to the reduction in the frequency of breakdowns of rural water point and thus a large cost for the repair of the water points has been saved.

Further relevant remarks

Haraad Reeb project intervention has significantly influenced the operations of the MoWR and other WASH stakeholders but due to the limited resources and project time frame there is need for continuation of the project to further reinforce the transfer of skills and lessons learnt.

ANNEX1: ANNUAL WORK PLAN

Annex 1: Tasks performed/responsibilities of the project staff

Program Coordinator (PC): Budgeted at 8% and reporting to the Assistant Country Director, the PC was responsible for program oversight. The PC worked closely with the project management to develop monthly plans and budgets, represent the program at field level, ensure that plans were implemented and supervise the implementation of non-rehabilitation works.

Area Manager (AM): Budgeted at 20% and reporting to the Program Coordinator, the AM is responsible for planning, managing and reporting on project activities and results. The AM managed all direct project staff, travelled between locations to ensure technical quality, represented the program with partners and stakeholders and ensured adherence to program timelines and budgets.

Senior Project Officer (SPO): Budgeted at 30% and reporting to the Area Manager, the SPO is responsible for planning, managing and reporting on project activities and results.

Project Engineer: Budgeted at 30% and reporting to the Area Manager, the Engineer is responsible for technical parts of all project infrastructures, technical specifications of project material, supervision and monitoring of all infrastructure and material. Provide technical advice, the engineer works closely with the PM in technical consultation, conducts field level assessment of project feasibility, provides technical assistance and supervises the implementation of rehabilitation works.

Project Officer: Budgeted at 40% and reporting to the Senior Project Officer, the Program Officer was responsible for community mobilization and the day-to-day implementation of program activities, including training of work group leaders. Monitoring and supervision of progress of project activities

Monitoring & Evaluation (M&E) Officer: Budgeted at 10% and reporting to the M&E and Reporting Manager, the M&E Officer was responsible for supporting the program team with the overall design, management and review of the program monitoring, evaluation, and reporting systems.

WASH team leader: Budgeted at 7% and reporting to the Program Coordinator, the position provides technical support to all WASH projects in the country office.

Assistant Country Director (ACD): Budgeted at 5%, the ACD had the overall responsibility for strategic directions and implementation of the project, and liaised with and senior representatives from government. The ACD was ultimately responsible for ensuring compliance and accountability and overseeing security and finance.

Finance Controller (FC): Budgeted at 5% and reporting to the Country Director, the FC was responsible for managing all financial processes as well as the finance team in CARE Somalia.

Security Advisor (SA): Budgeted at 5% and reporting to the ACD, the SD had direct responsibility for maintaining security protocols and systems in Somalia operations

Country Director (CD): Budgeted at 5% and reporting to the Regional Director, the CD is responsible for overall management of Somalia programs.

Technical Advisors: Technical Advisors are a pool of specialists on gender, advocacy, conflict and M &E. They provide technical support to the project in the respective sector. The project is contributing to their salary.

Annex 2: Project Target Villages and water Points Selection Process

Village Selection criteria

Project target village criteria and selection was done in two phases. Phase one was a selection process at the beginning of the project in 2013, and the second selection was done mid-2015, after the project received cost extension. Fifteen villages were chosen in the final selection, and the rationale used to select the 15 villages was based on the existence of permanent water sources in the 15 villages. Of the 30 villages targeted in phase one of the project, 15 were from selected from Haraad Reeb I project targeted villages to build upon the gains made and fill additional needs of communities in the previous project. The selection of Haraad Reeb II target village was the same as the selection criteria used to select villages in phase one of the project, including:

1. The village/community should be under the project target area (Odweyne, Burao and Ainabo districts)
2. There should be at least one initiative of the Rural Women Program being implemented in the area.
3. There should be in existence a permanent shallow water source with acceptable yield.
4. The community should be ready to collaborate with other stakeholders and project staff (community acceptance is paramount).
5. The community should have acceptance of women's participation in the water management and water income generation activities.
6. The village should have or provide communal shallow well, that can be improved.

A number of assessment missions were carried out to screen and select the project target villages using the selection criteria. A total of 29 target villages were identified for further screening and in collaboration with the Ministry of Water 15 villages were selected from those assessed.

Table 18: List of Selected villages on phase1 of Haraad Reeb II

Previous target villages provided improvement support			
1	Harosheikh	Mini water system	Odweyne
2	Xaaxi	Mini water system	Odweyne
3	Cabdi Faarax	Mini water system	Odweyne
3	Bali caraale	Mini water system	Odweyne
4	Qudhackudle	Mini water system	Odweyne
5	Haradagubataxil	Mini water system	Burao
6	Dhoqoshay	Mini water system	Burao
7	Qoryaale	Mini water system	Burao
8	Abdi Farah	Mini water system	Burao
9	Qorulugud	Mini water system	Buhodle
10	Bilcile	Mini water system	Burao
11	Duruqsi	No scheme	Burao
12	Dhagaxdheer	No scheme	Burao
13	Ali Isse	No scheme	Burao
14	Bali-hiile	No scheme	Burao
15	Waraabeeye	No scheme	Burao

Second selection process

The second selection of the project target was carried out in May 2015 once the project received additional funding. The participants emphasized the importance of effective governance of water and sanitation as central to long-term functionality of water schemes. It involved exploring current scheme preparedness for future sustainability and planning how best to strengthen governance in order to support longer-term functionality, including at times of acute water stress in low-rainfall years. A short feasibility study was carried out to sample water points throughout the country. The aim of this feasibility study was to assess the current technical, institutional and financial aspects and key stakeholders' capacity in relation to functionality, O&M and service delivery sustainability of the selected rural water supply facilities. The feasibility study also review the existing community level management of rural water supply and the applicability of income generation to support long term functionality of the water facilities. Thirty-four water schemes were assessed, out of which seven were strategic boreholes, using records of the Ministry of water, Data bank, Gift, service extension checklist, cost recovery analyses and focus group discussions. Based on the outcome of the feasibility study, the following new water points were selected:

Newly Selected villages			District
1	Geedbalaadh	Borehole	Gabiley
2	Warabood	Borehole	Saylac
3	Awrbogays	Borehole	Laascaanod
4	Dameeroboob	Borehole	Gabiley
5	Gambadhe	Borehole	Lascaanod
6	Biyoolay	Mini water system	Berbera
7	Xariirad	Mini water system	Boorama
8	Yayle	Mini water system	Lascaanod
9	Dhubato	Mini water system	Hargiesa
10	Dalyare	Mini water system	Lascaanod
11	Cadaadly	Mini water system	Hargiesa
12	Geelookor	Borehole	Berbera
13	Suuqsade	Mini water system	Shiekh
14	Ceelahely	Mini water	Las-caanod

The project is targeting 44 villages, where 15 villages were under Haraad Reeb I, another 15 from phase one of Haraad Reeb II and the remaining village are 14 from phase 2 of Haraad Reeb II. 32 Out of 44 villages are supported with construction of water infrastructure that aimed facilitating sustainable water scheme.

Annex 3: Baseline Assessment

The Haraad Reeb II project Baseline Evaluation was undertaken in January 2014 in Togdheer Region and Ainabo district in Sool Region of Somaliland. The main objective of Baseline was to generate quantitative and qualitative information, to be used for the project's planning as well as establishing benchmarks for the project. The specific objectives were to assess the project relevance, efficiency, effectiveness, outcomes and emerging impact, and sustainability as well as documenting any lessons learnt and making conclusions and recommendations from Haraad Reeb II to improve the current project. The assignment also included developing possible advocacy positions on the implementation and enforcement of the Water Act as well as the outcomes of the comprehensive CLTS pilot that was done in Haraad Reeb II.

Having a finite population of 32,4001 permitted the application of Fisher's formula for sample size determination from finite population to obtain a sample. Adding 10% to cater for wastages and losses, this came to 472 HH to yield 95% confidence level and 5 % confidence interval. The list of households from the 2005 UNDP census data for Somalia was used to sample the households. KII and FGDs were done for selected stakeholders.

Key findings for Haraad Reeb I

The innovations on Solar Panels as a source of energy for the water pumps has been discussed in International forums and found to be more relevant at this point where there is need to mitigate the negative impacts of climate change by moving away from fossil fuel. This has increased WMCs earnings since there is no cost for fuel. One of the challenges of the current practice is the lack of a comprehensive analysis of sustainability, including life-cycle costs and raising community awareness on why they have to pay for water fees. This can be solved by embracing and analysing the five² elements of sustainability and life-cycle costs in the project preparation and design phase.

Key findings for Haraad Reeb II

Majority of the population in the project area rely on unprotected shallow wells and Berkeds (equally unprotected). The latter are exposed to contamination by the surface run off making the population susceptible to water borne diseases. According to the FGDs conducted, whereas the DWOs know the contents of the Water

Commented [UK39]: This reference is missing, but would be great to have

Commented [H40R39]: Five elements of sustainability, local context

- Cost recovery mechanism
- Community ownership
- Existence of water scheme Management policy
- Technical knowhow of water scheme technicians
- Coordination with stakeholders

Act, there is no trickle-down effect to the community. On average 11% of the beneficiaries meet the daily per capita consumption of 15 litres. The proportion of people using improved water sources (boreholes and protected wells) during dry season is 49.2% whilst during wet season is 51.4%. According to the FGDs conducted, whereas the DWOs know the contents of the Water Act, there is no trickle-down effect to the community. Except for Plaza Water Company and Al Nabors Water Company (both are Urban PPPs); there is no Rural PPP in place. 30.4% of the sampled HH reported having water system breakdown lasting for weeks and beyond. 20.3% of the sampled HH said that they have a technician who repairs the system living within the region. Except for Lister™ Engine (UK), that the consultants found to have shortage of spare-parts in the local market, the rest of the models had their parts readily available in Burao and Hargeisa. Even Solar energy electrical appliances are readily available in both Burco and Hargeisa town. Of the schemes assessed using CARE Governance Scheme Functionality tool, 2 out of 5 have check score of more than 75% target in the LF. These are Higo in Sool where Haraad Reeb II had 93.3% and Odweyne in Togdheer, where the new project had 80%. On the number of the sampled HH 72.9% reported that they have a latrine. Out of this proportion, 74.3% use the latrine during the day and 78.4% during the night. 75.1% wash their hands after defecation and 10.6% wash their hands before eating.

CLTS

Whereas most of the population report that they own a latrine in their household, there are others who still go to the bush to relieve themselves because of issues of privacy and access to the latrine especially at night. Therefore, there is need to trigger the communities in the target areas to stop the open defecation practice. Triggering of communities should target children as agents of change.

PPPs

The assessment also looked at rural management modalities and did not find PPP approach modalities in the rural mini water systems

Annex 4: Table 20: Water schemes provided support

Newly Selected villages				Support provided
1	Geedbalaadh	Borehole	Maroodi Jeex	<ul style="list-style-type: none"> - Water storage tanks - Water distribution lines - Sanitary units - Machinery Maintenance
2	Warabood	Borehole	Awdal	<ul style="list-style-type: none"> - Solar powered water pumping - Water distribution line - Sanitary Units
3	Awrbogays	Borehole	Sanaag	<ul style="list-style-type: none"> - Water distribution line - Water pumping system repairing - Construction of animal troughs
4	Dameeroboob	Borehole	Maroodi Jeex	<ul style="list-style-type: none"> - Rehabilitation of water tank - Water distribution line - Water yard fence
5	Gambadhe	Borehole	Sool	<ul style="list-style-type: none"> - Water yard fence - System repairing - Water distribution line
6	Biyoolay	Mini water system	Saaxil	<ul style="list-style-type: none"> - Rehabilitation of water well - Flood protection gabion wall - Water distribution line - Established solar power for water pumping
7	Xariirad	Mini water system	Awdal	<ul style="list-style-type: none"> - Solar powered water pumping - Water distribution line - Flood protection from the well

8	Yayle	Mini water system	Sool	<ul style="list-style-type: none"> - Well rehabilitation - Water storage tank - Water distribution line - Solar power generator for Water pumping and lighting
9	Dhubato	Mini water system	Maroodi Jeex	<ul style="list-style-type: none"> - Rehabilitation of water well - Flood protection wall - Water distribution line - Upgraded solar power for water pumping - Grand water recharge sand dam
10	Dalyare	Mini water system	Sool	<ul style="list-style-type: none"> - Well rehabilitation - Water storage tank - Water distribution line - Solar power generator for Water pumping and lighting
11	Cadaadly	Mini water system	Maroodi Jeex	<ul style="list-style-type: none"> - Water distribution line - maintenance of solar water pumping
12	Geelookor	Borhole	Saaxil	<ul style="list-style-type: none"> - Upgraded Solar water pumping system - Water distribution line - Constructed Sanitary units
13	Suuqsade	Mini water system	Saaxil	<ul style="list-style-type: none"> - Rehabilitation of water well - Water distribution line - Established solar power r water pumping - Grand water recharge sand dam - Established stand water pipe for tanker track watering
14	Ceelahely	Mini water system	Sool	<ul style="list-style-type: none"> - Provided roof water harvesting tank - HH water facilities - Benefited from hygiene education
Additional support provided villages				
1	Harosheikh	Mini water system	Toghdeer	<ul style="list-style-type: none"> - Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Upgrading Solar power - Upgrade water distribution lines -
2	Xaaxi	Mini water system	Togdheer	<ul style="list-style-type: none"> - Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Upgrading Solar power - Upgrade water distribution lines
3	Abdifaarax	Mini water system	Togdheer	<ul style="list-style-type: none"> - Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Upgrading Solar power

				- Upgrade water distribution lines and water storage
4	Bali caraale	Mini water system	Togdheer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings
5	Qudhackudle	Mini water system	Togdheer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings
6	Dhoqoshay	Mini water system	Togdheer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lighting - Upgrading Solar power - Upgrade water distribution lines
7	Qoryaale	Mini water system	Togdheer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Upgrade water distribution line
8	Qorilugud	Mini water system	Togdheer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings -
9	Harada Gubataxil	Mini water system	Togdheer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings
10	Bilcile	Mini water system	Toghdeer	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings
11	Kirid	Mini water system	Sool	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Water kiosk extension
12	Wadamo-go	Mini water system	Sool	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings
13	Ulasan	Mini water system	Sool	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lighting - Kiosk extension
14	Higlo	Mini water system	Sool	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Upgrading of lighting and kiosk extension
15	Ceeldhab	Mini water system	Sool	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings - Upgraded water tank to concrete tank.
16	Habari heshay	Mini water system	Sool	- Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings

17	Fadhigab	Mini water system	Sanaag	<ul style="list-style-type: none"> - Rehabilitation of water well - Constructed water tank with kiosk - Solar lighting
18	Balanbaal	Mini water system	Sanaag	<ul style="list-style-type: none"> - Rehabilitation of water well - Constructed water tank with kiosk - Solar lightings

Annex 5: Review the Water Act with a consultant and the Ministry

Operation and maintenance of water supply is a comprehensive functionality for supply of water to the clients/communities in terms of technical knowhow and management. One of the main constraints of rural water sector in Somaliland is because of poor O&M systems, and Somaliland government and NGOs in water sector gave little consideration to operation and maintenance. Haraad Reeb project intervention addressed improvement of the operation and maintenance situation of Somaliland Rural water sector both legal, management framework and technical and human resource aspect. In terms of the technical aspect Haraad Reeb project introduced the establishment of a cost recovery mechanism in the rural water sector, with 32 water point interventions currently on-going. Haraad Reeb also established a water related technology centre where rural water point caretakers are trained.

To analyse what support is required in the legal and management sector of rural water, Haraad Reeb project hired a consultant to study the existing regulation in relation to water sector and how regulations are applied. The consultant did desk review to study existing regulatory documents and meet with water sector stakeholders in each district listed below:

Table 21: Water Act dissemination assessment

Districts	Focus group/key informants met
Burao Town	<ul style="list-style-type: none"> • Burao Water Agency, • Private water bottling companies • Ministry of Health • Siibakhti water point and Kabdheer water point
Ainabo district	<ul style="list-style-type: none"> • Ainaba District water officers • Higlo rural community, • Ulsan Rural community, • El-dhab Rural community
Lasanod district	<ul style="list-style-type: none"> • Lascanaood District water officers • Sixawale water point
Badhan district	<ul style="list-style-type: none"> • Badhan District water officer • El-Buh village water committee
Gabilay district	Gabilay District water officer Geedbaladh village water committee
Borama district	SHABA Water supply Company in Borama town
Total	

Somaliland Water Act offers opportunities of decentralized management, it provides a framework for ownership, co-ownership management and transfer of water rights and water infrastructure. In the co-ownership business community can be involved in management to keep the water systems functional. The water points will become a source of livelihood for the private sector and so they can work to ensure its sustainability. The water act provides a framework of Rural water management where the articles 33, 34 and 35 allows the management of rural water supply by a water users group, by public water providers or by district management.

Water rights and abstract permit

Principally, ownership of natural water resources is vested on the state. So, users are possessors and operate based on the permit from the respective institutions. However, Article 11 of the Act mentions two different types of water use subject to registration and these are customary water rights and mobilizing water resource with motorized works. The general principle of this Act is that a permit for the use of all water resources is mandatory as per Article 4 of the Act. However, Article 7 of the Act empowered **MOWR** to exercise the control of the production and use of the water. Though formally the act permitted both legislative institutions and a traditional

system to administer in the water management, the specific responsibilities of the ministry is to establish regulations, by-laws and administrative arrangement in accordance with the scope and limitation of the Act.

Rural Water Management

Rural water management is the major area that the assessment focused on. The main point here is that the act clearly gives rural water supply management to the Local Government. Among other responsibilities vested on the Local Government is to organize and supervise the proper delivery of public water services in a specified area entrusted to the local authority. The Act demands in Article 33 (2) that the local government plan investments concerning water supply in its territory by establishing priorities and identifying needs and demands, and find a fund for the planned investments and organize the management of the provision of services.

On the other hand the Act considers traditional institutions work with the local authority. Therefore, the local authority may, with the assistance of traditional structures, identify water user groups, and encourage and facilitate such groups to create Water User Associations. Water User Associations, with the assistance of the local authority, should manage public water facilities on a sustainable basis. The Districts also have authority to delegate the operation and management of public water supply services to a competent management entity which can be a private Water Provider.

Administratively, districts have to create a Water Management Unit within the district entity in order to operate and manage such facilities. Management of this unit is subject to a regulation, though it is not clear who is going to issue the regulation. On the other hand, the Act recognizes privately owned water supply facilities for individual private use in rural areas. The management of these water supply facilities is under their owners, provided that they comply with general conditions of water use and supply set in this Water Act.

The practice on the ground is by far different from what the Act says. Boreholes are generally managed by operators who were selected by communities or appointed by previous Government of Somalia and since disintegration of Somali Government nothing has changed. The community has little role to play in this. The local community has WASH and village administration that consist of elders nominated by the local community and approved by the Ministry of Interior through their respective regional governors. The manner of governance is based on unwritten customary law rules. However, the committees do not have clear structures in terms of managerial roles or transparency from the water sale income. There are no internal procedure on measures to take when they encounter any challenges; all they do is use the customary mechanisms.

For an effective dissemination of the Water Act, there has to be cooperation by other line ministries such as the Ministry of Health (MoH) which is the authority responsible to define the standards for sanitation around drinking water sources and for personal hygiene. The Ministry of Water has the responsibility of defining drinking water quality standards and water quality monitoring procedures, the methods to be used for analysis and by registering (certified laboratories) to undertake such activities on their behalf.

However, the Act decentralized undertaking this responsibility to district level. Article 44 (3) of the Act gives them power of implementing the water quality and monitoring programs. The Act requires the implementation of this program be conducted by delegation agreement between the District and the Water Provider. It is not clear whether WASH can act as the delegate on behalf of the community. Article 45 outlines the responsibilities of the district for Water Quality. However the practice on the ground in the rural area and water quality is not something considered, because communities are struggling to access water which is the community's priority.

Summary of Water management – From the Act

In general, the Act established purpose, principles and obligations based on the objectives of the said law. The purpose of the Act is to improve availability and access to water in a sustainable and equitable way for all different types of uses. However, the Act set up certain objectives, which are to recognize, legitimize, empower and endorse legislative institutions and traditional institutions, in water related administration, fiscal procedure and judicial affairs. However the Act is not describing the details of rural water management but providing general principles and guides on the national water sector. The assessment found that rural water will need understandable easily applied management bylaws.

Rural water management gaps

- With respect to the knowledge gap, rural communities that the project targeted are in stage to understand 'existing' body of knowledge on the structure, nature, practices and cultures of governance.

- The Act established both legislative and customary institution to administer water rights and use, but the Act does not establish specific jurisdiction between these institutions. In addition to that the Ministry has not issued any type of secondary legislation to enable functionality of the Act.
- During FGD it was noticed that the ministry responsibilities has not been decentralized to district level.

Annex 6: Timeframe for implementation January – April 2016

Activities	Status	Jan 2016	Feb 2016	March 2016	April 2016	May 2016	June 2016
Start up							
1. Sign MOU with Central & Local Governments	Completed						
2. Sign MOU with local partner	Completed						
3. Recruitment of field staff (2)	Completed						
4. Project phase-down							
Result 1: Enhanced access to water by improving water infrastructure							
A1.1 Community mobilization and start up activity activities in new villages	Completed						
A1.2 Construction of 15 improved shallow wells with solar panels installed							
A1.3 Construction of 120 roof water harvesting storage tanks	Completed						
A1.4 Safe water storage facilities provision for women	Completed						
R2: Local capacity for operation and maintenance							
A2.1 Conduct a review of the Water Act with a consultant and the Ministry and assess it against the on the ground	Completed						
A2.2 Develop an action plan by district on how to improve implementation of the Water Act; organise a discussion in.....	Completed						
A2.3 Finance the action plan, through training, provision of tools, subsidy of staff, other resources in each district, and monitor its implementation on 6 monthly basis together with the Ministry							
A2.4 Assess the current level of technical skills, and education of 30 government technicians, private borehole operators and other stakeholders	Completed						
A2.5 Provide 6 months training scholarship support for 30 community technicians in water systems and maintenance							
A2.6 Training materials for trainees	Completed						
A2.7 trainees transportation							
A2.8 Provision of tools to the trained water technicians start up kits							
A2.9 Conduct a review of operations models used in CARE programming, by government, advocated by UNICEF and by.....	Completed						

Commented [UK41]: These are both apparently incomplete

Commented [H42R41]: Completed

A2.10 Organise an exchange visit to Kenya to see how the water boards function in Kenya as part of the PPP process there	Completed							
A2.11 Use the CARE Governance-into-functionality tool to assess management approaches in 10 boreholes in the target areas	Completed							
A2.12 Agree on a management improvement plans for 6 boreholes, covering all key areas of good rural water	Completed							
A2.13 Conduct quarterly support visits to each of the sites, and provide training and support to implementation of the improvement plans								
A2.14 Develop tool to assess capacity of 12 committees managing other smaller community water points, using the.....	Completed							
A2.15 Develop and implement a training package for O&M tailored to 12 smaller water points managed by community								
A2.16 Improve government drought resilience planning for the WASH sector:	Completed							
A2.17 Support the Ministry and districts to implement the improvement plan								
A2.19 Annual learning and policy dialogues with communities, government and private sector on appropriate and resilient								
R3: Sanitation and hygiene practises improved in the rural community								
A3.1 Community Led Total (CLTS) sanitation training as ToT								
A3.2 CLTS community training at district level	Completed							
A3.3 Exchange visit to region where the CLTS has functioned								
A3.4 Awareness raising in water sanitation and hygiene	Completed							
A3.5 Production of hygiene and sanitation books- IEC	Completed							
Baseline and end line evaluation								
B.1. 1 Baseline survey	Completed							
B. 1.2 End line Survey								

Annex 7: Haraad Reeb project cost recovery Model

The picture represented is Haraad Reeb project rural water cost recovery mechanism model. The project experience and studies outcome showed one of the main reasons for rural water supply failure is lack of or poor cost recovery mechanisms to run and maintain the supply system. Most of rural water supply systems are in stage to generate enough revenue from water to maintain water supply system being functional. Haraad Reeb introduced rural water supply sustainability model in which the water supply system generates revenue from side business. In this case, the project established electric solar power generation where the power generated is split in to two components: one component supplies power to pump water from the well to water storage tank where the water is supplied to HH kiosks; the other component is supplied to village businesses for lighting at night, generating income from lighting. It may also generate some income from water supply, depending on the situation. However, to encourage people to get water from protected sources, water supply is usually free of

charge. The income generated from the scheme is used to run daily supply, pay for labor for repairs and for spare parts.

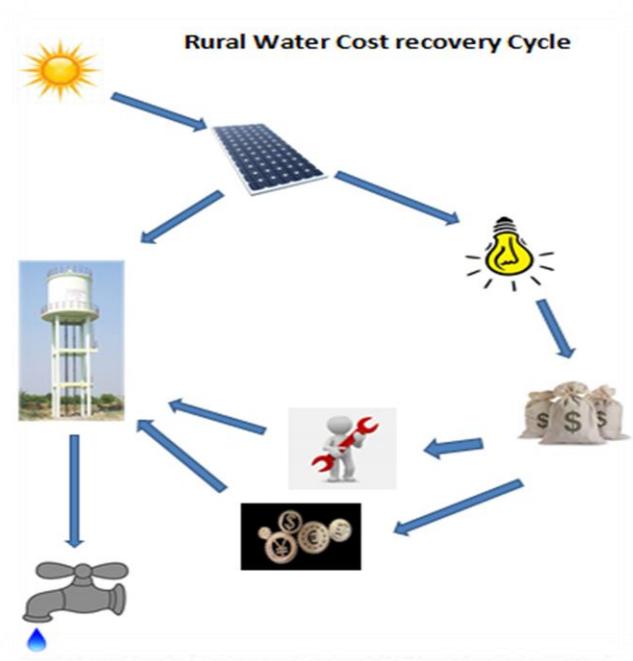


Figure 24. Rural water cost recovery cycle