



Sustainability of WASH services Maksegnit, Amhara

Town audit statement

In June-July 2015, a sustainability check of WASH services was undertaken in Maksegnit town, Amhara Region under the ONEWASH Plus Programme. This factsheet presents a summary of the key findings relating to sustainability challenges in town water supply, rural water supply, urban and rural sanitation and institutional WASH. As this first sustainability check has been undertaken at the start of the programme implementation, the results reflect that WASH services are not improved and capacity building interventions have not been implemented yet. Based on the findings, sustainability plans with details of suggested actions to overcome the sustainability challenges will be prepared.

Key findings

Town water supply: the town water utility is not well-staffed.

Furthermore, re considerable technical, social and environmental sustainability challenges have been identified.

Rural water supply: technical sustainability challenges include the limited maintenance capacities and ineffective spare part supply chain. Furthermore, financial sustainability challenges have been identified.

Urban sanitation: solid waste management is weak in Maksegnit town. Social sustainability is also an issue, due to the absence of pro-poor strategies.

Institutional WASH: financial sustainability of institutional WASH is a as budgets are low and logistics are inadequate. Also, technical sustainability at institution and service provision level is a challenge.

Overview of water supply and sanitation in Maksegnit

The water supply system of Maksegnit town is managed by a utility with an operator and an oversight in a town board. According to the utility (based on water connection and sales data) the water system serves 15% with public taps, 22% of the households with private yard connections while the remaining use shared facilities. However, the piped water supply system functions intermittently and service levels are low in terms of reliability, quantity, and quality. The per capita consumption is only 7 litres per capita per day.

According to the 2014 baseline study, the water supply coverage in the surrounding village is 78%, with people mainly depending on communal handpumps, many of which do not provide safe water.

Only 42% of the town population accesses improved sanitation facilities. The liquid waste extraction, collection and transportation is provided primarily by operators from nearby towns. The solid waste connection is provided by micro private companies.

Improved sanitation coverage in rural surroundings is the lowest of the seven programme towns, with only 4% of the people accessing improved sanitation facilities.

Of the 11 schools, a bit less than half (45%) have water supply, but 82% have latrine facilities. Of the 6 health facilities, 83% have water supply and 67% improved sanitation facilities.

Sustainability check overview

Within the ONEWASH Plus Programme, annual sustainability checks have been programmed to assess and monitor whether the degree to which conditions for sustainable WASH service provision are in place. Based on these sustainability checks, sustainability plans will be developed and implementation promoted to help ensure that the infrastructure and systems developed under the programme – within the programme towns, surrounding satellite villages and including institutional facilities at schools, health centres and other locations - do provide sustainable services to target populations without significant adverse environmental and socio-economic impacts.

The sustainability check considers the following five sustainability factors:

Institutional sustainability

Are policies, strategies and management arrangements in place to ensure sustainable WASH service provision?

Technical sustainability

Are WASH services technically viable and are mechanisms in place to ensure sustainable service provision (including spare part supply, the presence of technical support services etc.)?

Financial sustainability

Are WASH services financially viable and can they be financially sustained over time?

Environmental sustainability

Are measures in place to ensure that WASH services delivery does not have a negative impact on the environment?

Social sustainability

Are measures in place to ensure that everyone can benefit from the provided WASH services?

A scoring system has been developed describing incremental steps related to the performance on the indicator, to which scores are attached from 0 (worst case) to 100 (best case). The benchmark of the minimum acceptable level on each indicator has been determined and is typically set at the 50 score (100 in care of binomial (on-off) indicators).

Urban water supply

Table 1 Urban water supply sustainability scores – service provider level

Indicator		Score	
I	Effective utility management	50	25
	Staff efficiency	0	
	Effective Water Board (WB)	50	
	Town water utility staffing	0	
T	Quality of infrastructure	25	40
	Non-revenue water	25	
	Adequate supply of spare parts for minor maintenance (pipes, fittings etc.)	25	
	Effective maintenance system in place	100	
	Water quality management and disinfestations	25	
F	Cost recovery	50	44
	Effective financial management	50	
	Effective asset management	25	
	Effective billing and collection	50	
E	Sanitary inspection of sources	100	62.5
	Sanitary inspection public fountains	25	
S	Urban poor get affordable water	25	25

Table 2 Urban water supply sustainability scores – service authority level

Indicator		Score	
I	Sufficient capacity at regional and zonal level to provide support to TWUs	50	50
T	Effective provision of technical support to the TWU	50	50
	Checks on construction quality	50	
E	Catchment management system in place	0	0

As shown in Table 1 urban water supply in Maksegnit Town fails to meet the benchmark on 9 of the 16 indicators, resulting in low sustainability scores.

Institutional sustainability: The utility is neither well-staffed with skilled staff nor has adequate efficiency.

Technically sustainability: The utility does not have comprehensive and reliable records on the state of the infrastructure and NRW (especially water production quantity). In addition it takes more than three days to acquire spare parts and reservoirs are disinfected less frequently than once a month.

Financial sustainability: The utility has an operating surplus and adequate financial management. However, it has to be noted that the utility cannot finance long-term investments. It has an effective manual billing system; however its asset management is not satisfactory, with data on only part of the assets.

Environmental sustainability: Although the sources of the town water scheme pass the sanitary inspection, many of the public fountains do not.

Social sustainability: The utility has not done much to address equity issue. There are insufficient public taps and shared yard connections for providing water services to the poorest.

At **service authority level**, the absence of catchment management and source protection presents a possible environmental sustainability risk. The region has dedicated department / section for supporting TWU with adequate staff. Technical support to the TSU is generally provided within a week and the building quality of urban water supply systems is checked by zone/region for all schemes.

Rural water supply

Table 3 Rural water supply sustainability scores – service provider level			
Indicator		Score	
I	Well-composed and trained WASHCo	51	44
	By laws and legal status of the WASHCo	36	
T	Presence of WaSH artisans in the woreda	50	31
	Spare part supply	24	
	Routine (preventive) maintenance	21	
F	User payment and tariffs	49	32
	Financial management	36	
	Revenue/standard annual expenditure balance	11	
E	WASHCo Water safety plan	28	26
	Sanitary Inspection (SI)	25	
S	Election of WASHCo by entire community	67	38
	Women representation in WASHCos	8	

Table 4 Rural water supply sustainability scores – service authority level			
Indicator		Score	
I	Woreda WASH Team	75	62.5
	Woreda Water Office	25	
	Woreda level plan	75	
	Regional standard WASHCo by laws	75	
T	Checks on construction quality	100	92
	Monitoring of O&M and WASHCo performance	75	
	Scheme inventory and maintenance plan	100	
F	Woreda water office annual recurrent budget	50	25
	Woreda water office logistics	0	

As shown in Table 3, the average indicator score is lower than 50 on 9 of the 12 indicators at service provision level.

Institutional sustainability: 78% of the 18 WASHCos in the rural areas around Maksegnit are well composed and a bit more than half have by-laws in place.

Technical sustainability: The WASHCos score poorly on the technical sustainability indicators. Only a bit more than a quarter of the WASHCos can acquire spare parts within 3 days and even fewer practice routine maintenance on at least annual basis.

Financial sustainability: For about 65% of water points in the rural areas surrounding Maksegnit, a monthly tariff had been set. For most other water points, no tariff had been set to ensure financial sustainability of the water services provided by the water point. A third of the 18 WASHCos managing the water points had up-to-date financial records and a dedicated account in a financial institution. Only one of the 14 WASHCos for which data on revenues was available, had a positive Revenue/standard annual expenditure balance.

Environmental sanitation: Only a bit more than half of the WASHCos have a water safety plan in place and only a quarter of the rural water points passed the sanitary inspection.

Social sustainability: About two-thirds of WASHCos were reported to have members elected by the entire community. Gender balance in WASHCos was an issue, with only 17% of WASHCos having at least 50% women.

At **service authority level**, only two of the nine benchmarks have not been met. The main challenges are the fact that the Woreda Water Office has sufficient staff, but these have not been trained and do not have access to sufficient logistics in order to fulfil their roles and responsibilities.

Urban sanitation

Table 5 Urban sanitation sustainability scores - Service Provider level

Indicator		Score	
I	Waste water services	50	50
	Solid waste management services	0	
	Local private sector with capacity to construct and repair latrines	100	
T	Access to septic emptying services	25	25
	Public latrines built and effectively operational	25	
F	Economic viability of liquid waste service provider	100	33
	Economic viability of solid waste service provider	0	
	Access to fund for sanitation service providers	0	
E	Open defecation free environment	71	71
S	Affordability of liquid waste management services for households	50	33
	Affordability of solid waste management services for households	0	
	Availability of social inclusive public latrine facilities	50	

Table 6 Urban sanitation sustainability scores - Service authority level

Indicator		Score	
I	Clear roles and responsibilities related to town sanitation and hygiene	50	92
	Town council capacity to do sanitation and hygiene promotion	75	
	Town sanitation master plan	50	
	Formalisation of pit and septic pit emptiers	100	
T	Checks on construction quality	50	75
	Effective messaging related to sanitation and hygiene	100	
F	Town/ municipality annual recurrent budget	0	0
	Sufficient logistics for town staff to monitor and follow-up on sanitation and hygiene	0	
E	Safe disposal or reuse of sludge in an environmentally sound manner	0	0
	Safe disposal or recycling of solid waste in an environmentally sound manner	0	
S	Presence of strategy and service delivery models for reaching the poorest with sanitation facilities	25	25

At service provision level, the town fails to meet the benchmark on 6 of the 12 urban sanitation sustainability indicators.

Institutional sustainability: Latrine artisans are available within town and private service providers are engaged in extraction and transportation of liquid waste in the town. However, there are no solid waste management service providers present in the town.

Technical sustainability: It generally takes longer than 7 days for septic tank emptiers to respond to a request for septic tank emptying services. There are insufficient public latrines in the town and these are poorly managed.

Financial sustainability: The liquid waste service providers were reported to be economically viable, unlike the solid waste collectors. Sanitation service providers have no access to (micro) finance.

Environmental sustainability: 71% of households reported not practice open defecation, while 29% do. This implies a potential minor environmental sustainability risk.

Social sustainability: Liquid waste water services are reported to be affordable to some households, though only 5% of households reported to make use of such services. Solid waste services not considered affordable. The public latrine facility has separate latrines for males and females, but no special facilities for disabled people.

At **service authority level**, the town scores especially low on financial sustainability, environmental sustainability and social sustainability. The town does not have access to sufficient with recurrent budget and logistical resources available for supporting urban sanitation services. There are no environmentally acceptable disposal facilities and systems in place. Solid waste is not collected and liquid waste is dumped untreated. Also social inclusion is also not given due consideration.

Rural sanitation

Table 7 Rural sanitation sustainability scores – service provider level			
Indicators		Score	
I	Hygiene and Sanitation community Groups	50	50
T	Local private sector with capacity to construct and repair latrines	0	0
F	Economic viability of sanitation service provider	50	25
	Access to fund for sanitation service providers	0	
E	Open defecation free environment	39	39
S	Affordability of latrines for households	75	75

Table 8 Rural sanitation sustainability scores – service authority level			
Indicator		Score	
I	Clear roles and responsibilities related to rural sanitation and hygiene	50	75
	Capacity to do sanitation and hygiene promotion	75	
	Sanitation & Hygiene in woreda WASH plan	100	
T	Effective messaging related to sanitation and hygiene	75	75
F	Sufficient logistics for woreda staff to monitor and follow-up on rural sanitation and hygiene	25	25
S	Presence of strategy and service delivery models for reaching the poorest with sanitation facilities	0	0

Institutional sustainability: Only about half of the communities in the woreda have a Hygiene and Sanitation Community Group which has been trained and retrained and which meets at least quarterly.

Technical sustainability: There are no local latrine artisans available in rural areas.

Financial sustainability: Latrine artisans are believed to be economically viable. However, they do not have access to sources of (micro) financing.

Environmental sustainability: Only 39% of households reported not to practice open defecation, which poses a serious environmental sustainability risk.

Social sustainability: Latrines are considered to be affordable to households without subsidies.

At **service authority level**, there are good sanitation plans, clear roles and responsibilities and adequate public capacities at woreda and kebele level. Logistic issues are the most critical elements that could hamper the financial sustainability of rural sanitation at this level. Furthermore, the lack of clear strategy for reaching the poorest with sanitation facilities, hamper social sustainability.

Institutional WASH

Table 9 Institutional WASH sustainability score – service provider level

Indicators		Health facility		School	
I	Roles for cleaning and minor maintenance of institutional latrines	100	100	90	95
	Clear roles and responsibilities with regard to pit emptying/desludging /decommissioning	100		100	
T	Cleaning programme for sanitation facilities	46	22	48	13
	Availability of sufficient and appropriately equipped sanitation facilities including hand washing	17		0	
	Menstrual hygiene	25		5	
	Septic tank emptying practices	0		0	
F	Payment for water services	25	27	10	25
	Financing of capital maintenance of sanitation facilities	29		40	
E	Distance between latrines and water source (hand dug well / borehole / spring)	100	75	89	54
E	Open defecation free environment	50		20	
S	Social inclusion of latrine facilities	8	8	25	25

Table 10 Institutional WASH sustainability score – service authority level

Indicators		Health facility		School	
I	Clarity on roles and responsibilities related to supporting institutional WASH	75	83	50	75
	Local government capacity to provide support to institutional sanitation	75		75	
	Formalization of pit and septic pit empties	100		100	
T	Monitoring of sanitation facility use and follow-up support	75	58	100	58
	Effective support to institutions related to their WASH facilities	50		25	
	Availability of septic tank emptiers	50		50	
F	Sufficient financing of staff to monitor and follow-up on institutional WASH service provision	50	38	50	25
	Sufficient logistics for staff to monitor and follow-up on institutional WASH service provision	25		0	
E	Safe disposal and / or reuse of sludge in an environmentally sound manner	0	0	0	0
	Safe disposal and / or recycling of solid waste in an environmentally sound manner	0		0	

At service provision level, both health facilities as well as schools in Maksegnit do not score well on technical, financial and social sustainability.

Institutional sustainability: Roles and responsibilities related to latrine cleaning, minor and major maintenance and de-sludging are clear at health facilities and schools in Maksegnit.

Technical sustainability: In 4 of the 6 health facilities and in 7 of the 11 schools there is a regular cleaning programme and latrines are cleaned at least once a week. Only few health facilities and none of the schools have sanitation facilities which include hand washing facilities with water and soap and have menstrual hygiene disposal facilities in place. Septic tank emptying is not practiced in any of the schools and health facilities.

Financial sustainability: Only part of the health facilities and schools pay for water services and pay for major repairs to sanitation facilities.

Environmental sustainability: As institutional sanitation facilities are generally located away from hand dug wells, boreholes and springs, the environmental sustainability risks are limited. Open defecation, which could present an environmental sustainability risk, is practiced in three of the six health facilities and in 8 of the 10 schools.

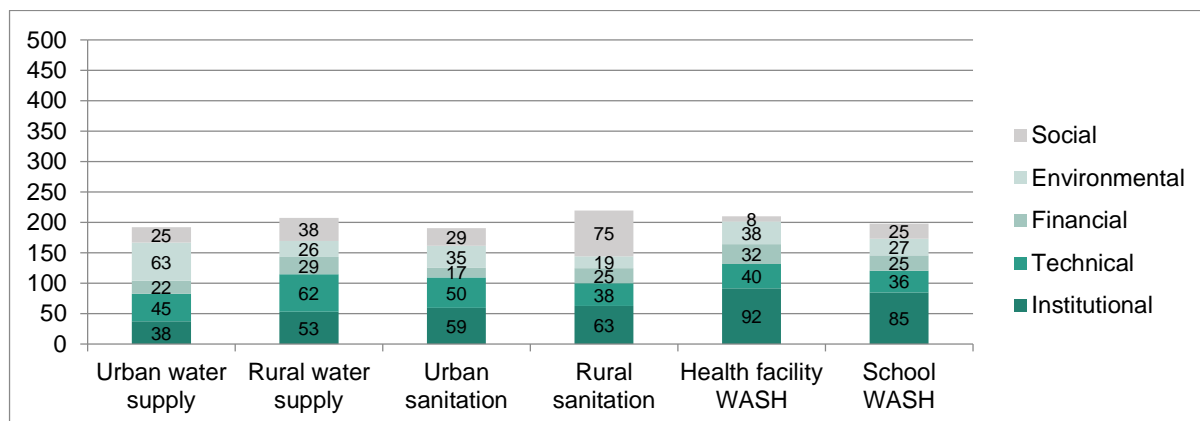
At **service authority level**, there is clarity on roles and responsibilities related to health facility WASH, but less so for school WASH. In the Woreda Education and Health office, there are sufficient dedicated staff members that have received training to support institutional WASH. Main challenges for both health facility WASH as well as for school WASH is a lack of logistic resources available to the woreda level staff to do their job in supporting institutional WaSH, and a lack of facilities for the safe disposal of liquid and solid waste.

Conclusions and recommendations

Figure 1 gives an overview of the average WASH sustainability check scores from service provision and service authority level in Maksegnit. It shows that the institutional and technical sustainability are satisfactory.

The assessment indicates that financial, environmental and social sustainability of WASH services is not viable because of limited budget allocation at all level, absence of environmental awareness and enforcement and low consideration for social issues.

Figure 1 Aggregated scores



Highlights of proposed actions

Town utility should strengthen institutional capacity. There is a need for training of utility staff and for the introduction of performance management to improve efficiency. Asset management and financial planning also need to be strengthened. The provision of shared yard connections in low income household compounds could improve social sustainability. In order to ensure environmental sustainability catchment management should be introduced.

In urban sanitation, solid waste management services and waste management technologies need to be introduced. Furthermore, pro-poor strategies need to be introduced in order to support vulnerable groups to access sanitation facilities.

Public latrines management could be improved through performance agreement with operators.

In rural water supply, spare part supply chain could be improved through involvement of private sector. Furthermore there is a need for

allocation of adequate budget at woreda level to improve monitoring and support to WASHCOs.

In rural sanitation the logistics at woreda level should be improved.

Institutions should develop a financing plan for operation and maintenance of WASH facilities and should strengthen their WASH management capacity.

and maintenance of WASH facilities.

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