





**Table 1:** Effect of water constraints

SN	Items	Variables	f	%	r	t
1	Have you and your family member ever caught any waterborne disease?	Yes	113	66.5	-.017	.830
		No	57	33.5		
		<b>Total</b>	170	100		
2	If your answer for question one is yes the disease may be:	Diarrhea	86	50.6	-.048	.533
		Worm	8	4.7		
		Amoeba	17	10.0		
		Kidney related disease	2	1.2		
		Missing value	57	33.5		
		<b>Total</b>	170	100		
3	Do you think all parts of the town suffer from water shortage equally?	Yes	155	91.2	-.169*	.028
		No	15	8.8		
		<b>Total</b>	170	100		
4	Water used for what purpose (s) do you suffer from its scarcity?	Drinking	135	79.4	-.008	.917
		Cleaning/hygiene	12	7.1		
		Both of them	23	13.5		
		<b>Total</b>	170	100		
5	How much time do you spend to collect drinking water per day in minute/hour?	< 20 minute	27	15.9	-.007	.927
		21-40 minute	14	8.2		
		41-60 minute	31	18.2		
		>an hour	98	57.6		
		<b>Total</b>	170	100		

Source: Field survey, 2012

The great majority of the respondents and/ or their family members were at least once infected with water borne disease. Access to safe and adequate water service is one of the most efficient ways of improving human health. 86 (50.6%) of the respondents reported diarrhea, 8 (4.7%) of the respondents selected worm, 17 (10.0%) of the respondents selected amoeba, 2 (1.2 %) of the respondents selected kidney related disease and 59 (34.7%) of the respondents said they were never infected. Accordingly the great majority of the respondents suffered from diarrhea followed by amoeba. The interview result with the Awaday health center key informants absolutely strengthens the respondents' idea.

About 155 (91.2%) of the respondents selected 'Yes' and 15 (8.8%) of the respondents selected 'No' regarding the equality of water supply to the city. 135 (79.4%) of the respondents selected drinking, 12 (7.1%) of the respondents selected cleaning/hygiene, and 23 (13.5%) of the respondents selected washing cloth regarding the scarcity. Table 1 also shows that 27 (15.9%) of the respondents selected less than 20 minute, 14 (8.2%) of the respondents selected between 21 to 40 minute, 31 (18.2%) of the respondents selected between 41 to 60 minute, and 98 (57.6%) of the respondents selected.

Generally, the shortage of drinking water supply service in the town was causing a lot of problems to the dwellers of the town as well as to the development of the town. As the data presented in table 1 indicated majority of the dwellers and institutions were suffering from water shortage in the town. Women in Africa are more than five times as likely as men to usually go to a source and collect drinking water for the household. In all cases, less than one a fifth of the

households report that male household members usually go to the source to collect water (WHO/UNICEF, 2012).

**Table 2:** Cost of drinking water collection

SN	Items	Variables	f	%	r	t
1	How much are you charged for drinking water per month in Ethiopian birr?	<50birr	8	4.7	.035	.651
		51-100birr	46	27.1		
		101-150birr	46	27.1		
		>150birr	70	41.2		
		<b>Total</b>	170	100		
2	How many persons from your household go to fetch water at a time?	one	45	26.5	-.051	.508
		two	100	58.8		
		three	25	14.7		
		<b>Total</b>	170	100		
3	Who usually goes to the public tap water fetch?	female	95	55.9	-.020	.799
		male	14	8.2		
		both	61	35.9		
		<b>Total</b>	170	100		
4	Could you say something about your town water scarcity effects?	Time& money cost	24	14.1	-.054	.486
		waterborne disease	29	17.1		
		both	4	2.4		
		All	113	66.5		
		<b>Total</b>	170	100		

Source: Field survey, 2012

With respect to item 1 of Table 2, 8 (4.7%) pay for drinking water less than 50 Ethiopian birr, 46 (27.1%) pay for drinking water between 51-100 Ethiopian birr, 46 (27.1%) pay for drinking water between 101-150 Ethiopian birr, 70 (41.2 %) pay for drinking water above 150 Ethiopian birr. Accordingly majority of the respondents selected above 150 Ethiopian birr and followed by 101 to 150 Ethiopian birr charges for water per month.

According to the check list and interview with youth association result the price of water per 20 liter jarican (20 liters can) was range from 5.00 to 7.00 and together with travel cost or labor cost finished 5.00 to 7.00 Ethiopian birr. Furthermore, high costs of water may reduce the volumes of water used by households, which in turn may influence hygiene practices and increase risks of disease transmission. Many alternative water sources (notably vendors) also involve costs, and these costs should be included in evaluations of affordability. In addition, to recurrent costs, the costs for initial acquisition of a connection should also be considered when evaluating affordability (WHO, 2008).

Table 2 also shows that 45 (26.5%) of the respondents selected one, 100 (58.8%) of the respondents selected two, 25 (14.7%) of the respondents selected three regarding the number of people engaged in fetching water for a household. 95(55.9%) female, 14 (8.2%) male and 61 (35.9%) both regarding the collection of water. 24 (14.1%) of the respondents listed time wastage and additional cost/ expenditure, 29 (17.1%) of the respondents listed suffer from water borne disease, 117 (68.9%) of the respondents listed both loss of resource and suffer from different water borne diseases. This revealed that the dwellers had been suffering from this infrastructure for a long period and lost a lot of resource (time labor, money and even life).

Generally, lack of water considered as serious issues of the town and personal safety and dignity, particularly in urban areas. Girls in urban areas drop out of school when they reach puberty, for instance, because toilets are not available that offer any privacy. But at national level the proportion of Ethiopian households with access to piped water has increased from 18 percent in 2000 to 24 percent in 2005 and 34 percent in 2011 to avoid the water shortage related gender disparities (CSA, 2012).

**The municipality efforts to alleviate drinking water problem in the town.**

**Table 3:** An attempt to solve the town water supply problem

SN	Items	Variables	F	%
1	Who do you think is responsible for drinking water supply to the town?	government	87	51.2
		community	27	15.9
		NGOs	2	1.2
		a and b	54	31.8
		<b>Total</b>	<b>170</b>	<b>100</b>
2	To solve the problem of piped water supply in the town the administrative body pay	a lot of attention	19	11.2
		some attention	32	18.8
		less attention	48	28.2
		no attention at all	71	41.8
		<b>Total</b>	<b>170</b>	<b>100</b>
3	How do you see solving water supply problem for the development of Awaday town?	very important	148	87.1
		important	16	9.4
		less important	6	3.5
		<b>Total</b>	<b>170</b>	<b>100</b>
4	Are you willing to pay any amount of money to improve the current water supply?	Yes	127	74.7
		No	43	25.3
		<b>Total</b>	<b>170</b>	<b>100</b>
5	If your answer no to question number 4, your reason may be:	The municipality should pay	20	11.8
		The government should pay	13	7.6
		NGOs should pay	10	5.9
		lack of money	127	74.7
		Missing value	20	11.8
		<b>Total</b>	<b>170</b>	<b>100</b>

Source: Field survey, 2012

From Table 3 it is evident that 87 (51.2%) of the respondents selected government, 27 (15.9%) of the respondents selected community, and 2 (1.2%) NGOs, 54 (31.8%) of the respondents selected government and community as responsible for water supply. 19 (11.2%) of the respondents selected a lot of attention to the problem, 32 (18.8%) of the respondents selected some attention to the problem, 48 (28.2%) of the respondents selected less attention to the problem, 71 (41.8%) of the respondents selected no attention at all. About 148 (87.1%) of the respondents selected very important, 16 (9.4%) of the respondents selected important, 6 (3.5 %) of the respondents selected less important regarding the supply problem solution. 127 (74.7%) of the respondents selected 'Yes' 43 (25.3%) of the respondents selected 'No'. 20 (11.8%) of the respondents selected the municipality should pay, 13 (7.6%) of them selected the government should pay, and 10 (5.9%) of the respondents selected NGOs should pay whereas, 127 (74.7%) of the

respondents were ready to pay their parts for improving the town water supply service.

**Table 4:** Efforts of concerned bodies to solve the water constraints in the town

SN	Items	Variables	f	%
1	How do you see solving water supply problem for the development of Awaday town?	Nothing	106	62.4
		to some extent	57	33.5
		Well	7	4.1
		<b>Total</b>	<b>170</b>	<b>100.0</b>
2	So far has the concerned body done enough to solve the water provision problem?	A lot of attention	17	10.0
		some attention	34	20.0
		no too much attention	60	35.3
		no attention at all	59	34.7
		<b>Total</b>	<b>170</b>	<b>100.0</b>
3	Additional suggestion to improve the situation of water supply in the town	should be improved	60	35.3
		Municipality should work on it	12	7.1
		independent office should established	32	18.8
		All	66	38.8
		<b>Total</b>	<b>170</b>	<b>100.0</b>

Source: Field survey, 2012

Concerning item 1 of Table 4, 106 (62.4%) of the respondents selected nothing has been improved, 57 (33.5%) of the respondents selected to some extent there has been improvement, and 7 (4.1%) of the respondents selected there has been well improvement in the town. Regarding item 2 of Table 4, 17 (10.0%) of the respondents selected a lot of attention to the problem, 34 (20%) of the respondents selected some attention to the problem, 60 (35.3%) of the respondents selected no too much attention to the problem, and 59 (34.7%) of the respondents selected no attention at all. As per the item 3 of Table 4, 60 (35.3%) of the respondents listed it should be improved, 12 (7.1%) of the respondents listed municipality should work on it, 32 (18.8%) of the respondents listed independent water office should established for the town, and 66 (38.8 %) listed all the three points. This revealed that almost all the respondents were agreed on the criticality of improving the current water supply service of the town.

Access to and use of safe drinking water can make an immense contribution to health, productivity, and social development. However, many people in developing countries continue to rely on unimproved water sources. According to the United Nations Development Program (UNDP, 2006), nearly one-sixth of the world's population obtains drinking water from unimproved sources, and in many developing areas, progress in expanding clean water coverage is modest. In Sub-Saharan Africa, for instance, the proportion of the population that depends on unimproved sources has declined only slightly, from 52 percent in 1990 to 44 percent in 2004 (UNDP, 2006). As part of the Millennium Development Goals, the international community has set a goal of reducing the proportion of people without sustainable access to safe drinking water by 50 percent by 2015 compared to its level in 1990 (UN, 2000).

The effect of poor water supply in urban areas of the country has high impact on the living condition of the towns' communities and economic development of the country (OWRMB, 2010). Human beings in search of safe and adequate water for its existence have experienced all hardships; through the planet has enough water resources. And safe domestic water supply is an essential component of primary health care and plays a vital role in poverty alleviation. Inadequate water supply and sanitation services impact upon the lives of billions of poor people in the developing world (WB, 2004). Two in every 10 persons lack access to safe water supply, five have inadequate sanitation and nine do not have their wastewater treated. Yet, these estimates are believed to underestimate the extent of the drinking water supply problem (World Bank, 2004).

## 5. Conclusion

The water supply of adequate quantity and acceptable quality is one of the basic needs of human beings, but the provision of potable water in Awaday town has been inefficient and continuously interrupted. The situation is getting worse due to the population growth and spatial expansion of the town which outstripped its ability to supply sufficient water for inhabitants. As a result the water supply service in the town had problem of insufficiency; unfair distribution, management and interruption. And the dwellers forced to get once in a week water from water venders. The great Majority of the dwellers don't know the cause of frequent interruption, period and its duration of water supply service and the town lacked its own water development office. And also not only suffers from constraints drinking water rather additional costs like waterborne disease, time wastage, and additional cost. Such inadequate production, together with an equitable distribution system and low quality of water influence the well-being of people in particular and the socio-economic condition of urban areas in general. Because its shortage brought work burden, safety, education, and equity of particularly girls and women in addition to, increasing cost of life to all households. The other issue inviting attention in water supply sector in Ethiopia in general and Awday town in particular which is characterized by service deficiency of physical infrastructure as well as inadequate management capacity to handle policy and regulatory issues and to plan, operate and maintain the service.

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