



MARKET ASSESSMENT OF
CONSTRUCTION MATERIAL AND
SERVICES IN AFAR REGION
FOR GIZ-SDR PROGRAM

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Executive summary

This report covers the findings of market price assessment for construction of lowland rehabilitation measures in seven intervention woredas in Afar Region. The Woredas included for the assessment are Kori, Chifra, Ewa, Awura, Gulina, Yalo and Teru and it was conducted between October and November 2018. The aim of the assessment were to identify the market price for skilled and unskilled labour, to identify and map the material source area and asses cost and also the transportation cost of the materials in the intervention Woredas.

The main Findings and recommendations from this assessment are:

Labour market

During the assessment, one of the major finding were the experienced Masons were not attainable in all intervention Woreds except Chefra and Gulina Woredas. Even in Chefra and Gulina there are limited number of masons available. As a result according to the informants, the primary market source for the experienced Masons are available in Logiya-Semmera, Woldiya, Kobo and Alamata towns. Thus, the main reference market for experienced Masons are Woldiya town, for Ewa , Chefera and Awra Woredas. Kobo town and Alamata for Gulina and Yealo Woredas and for Teru and Kori Woredas semera-Logiya town are the primary source for experienced Masons and Masons. The beginner Masons and the unskilled labours are available in all Woreda centers in the GIZ-SDR intervention Woredas. The price for unskilled labour was set on the daily bases and also the price was set based on volume of work, type of work and location of the work site plus on weather condition.

Furthermore all informants participated in the assessment stated that, the pricing for skilled and unskilled labour was determined by the type of construction works, the distance from the Woreda center and the weather condition. Additionally, the pricing of the work norm for skilled persons was calculated and set using two modalities. The first modality of pricing include awarding or sub-contracting the experienced mason the construction work with fixed amount and time period by the contractors. In this modality the contractor provide all the materials to the construction site however, the labour cost for skill or unskilled labour was covered by the experienced mason. The other modality of pricing was set as per daily rate or per meter cube. Depending on the season, the daily rate started from 300 birr up to 350 birr on average for the experienced mason. (For the hotter season the price is increasing). For unskilled labour the work norm for daily labour is calculated as per daily rate for most daily works listed in the table below except for loading and unloading works. For loading and unloading the cost rate is depending on the type and distance of the items that are loading or unloading. The table below shows the price of the skilled and unskilled labour market in GIZ-SDR Intervention Woredas.

Table 1 skilled labour market price

Labour type	Daily rate Chfera In ETB (Birr)	Daily rate Ewa In ETB (Birr)	Daily rate Avera In ETB (Birr)	Daily rate Gulina In ETB (Birr)	Daily rate Yealo In ETB (Birr)	Daily rate Teru In ETB (Birr)	Daily rate Mile In ETB (Birr)	Daily rate in Kori In Eth Birr
Experienced mason (can construct 2-3 M3/day)	300-330	300-330	300-330	300-350	300-350	300-350	270-300	300-350
Mason (can construct 1-2M3/day)	250-270	270-300	250-270	270-300	240-260	290-300	230-250	270-300
Beginner mason (can construct 0.5-1 M3/day)	200-230	200-230	230-240	200-240	200-240	220-260	180-200	200-250
Foremen	270	270	300	300	300	330	270	300

Table 2 Unskilled labour market price

	Daily rate in ETB (Chefra)	Daily rate in Kori	Daily rate in Ewa	Daily rate in Awra	Daily rate in Gulina	Daily rate in Yealo	Daily rate in Teru	Unit
Site clearance	120-150	150-170	120-160	120-160	120-160	130-150	150-170	m ²
Excavation	120-150	150-170	120-160	120-160	120-160	130-150	150-150	m ³
Back fill	120-150	150-170	120-160	120-160	120-160	130-150	150-150	m ³
Loading	7-10 per item	7-10 per item	6-10	6-10 per item	7-10 per item	10-12 per item	8-12 per item	m ³
Unloading	7-10 per item	7-10 per item	6-10	6-10 per item	7-10 per item	10-12 per item	8-12 per item	m ³
Watering of construction	140 per watering day	170 per watering day	170 per watering day	150+20 per watering day	140+20 per watering day	150+20 per watering day	150+20 per watering day	m ³
Site guard	1000- 1100	1100- 1200	1000- 1100	1000- 1100	1000- 1200	1000- 1200	1100- 1200	(monthly)

The material market

The other main finding from the assessment is that most of the source area for materials used for construction like sand, stone and water are available and located using GPS in all the GIZ-SDR intervention Woredas. The other material needed for construction is cement, however except Chefera Woreda all the other Woredas didn't have any supplier available within the woreda, thus, the customers transport cement either from Chfera if it is in small quantity or from Logiya, Woldiya, Kobo or Alamata if the volume is big. The informants also mentioned that if the quantity is very huge (more than 400 quintals) it brings from Mekele town (Mosbo cement factory) because the gate price during the study period for PPC cement type is 205 birr per quintal plus 42 birr additional cost for transportation for some of the Woredas (Gulina, Yealo). The price from Chfera, Logiya and Woldiya towns are collected for this assessment. For cement the type and quality of the road mostly are asphalt and gravel and it provides service in all weather.

In kori , Gulina and Yealo Woredas there are few licensed suppliers available for supplying sand and stone materials. The assessment also found out in the other intervention Woredas (Chefera, Ewa, Awera, Teru, Mile) it needs to contact the Woreda administration or kebele administration and clan leaders for permission to use the materials because the materials are public goods and administered and managed by the local government. After getting approval there are unions available organized by the Woreda local government as a daily labour and charged some amount for loading the sand and stone materials.

From the discussion with informants, the Woreda level Water Office and kebele administration are responsible for water services and decisions regarding the usage of water resource in all the intervention Woredas. In most of the Woredas the informants describe, Seasonality and rain fall determine water availability for public service delivery. Shorter or delayed rains, caused by climatic variations, have negative effects on water availability. There are two kind of water sources for construction, the first water source is from river and it has a

cost for daily labour to fill a 3m³ water container for most of the Woredas, however most of the rivers are seasonal and it is difficult to rely on in all seasons. The second water source is collected from water point that provides service to the communities in the Woreda, therefore it requires agreement on the usage of water with the Kebele leader or Woreda administration. For instance In Yealo Woreda the Kebele charged 300 birr for fuel cost to fill 3m³ of water container.

Table 3 Material market price

Woredas	sand	stone	Water per unit litter cost	cement	Quality of the road		Material distance from the intervention Kebele (KM)			
					Sand & water	stone	sand	stone	water	cement
Kori	1400	1500	0.20	250	All weather	All weather	2	0.5	13	110
Chefra	1100	1100	0.1	220-245	All weather	Dry weather	10.5	5.2	10.5	79
Ewa	1000	1000	0.15	220-245	All weather	All weather	19	7	19	90
Awera	1000	1000	0.15	220-245	Dry weather	All weather	17	23	17	120
Gulina	1500	1500	0.15	220-245	All weather	All weather	1	2-7	1	90
Yealo	1300	1300	2.75	220-245	All weather	All weather	12	3	3	72
Teru	1100	1000	0.25	250	Dry weather	All weather		6		135

Note: for Kori, Gulina and Yealo woreda the loading price is included and for the other Woredas only loading price for 16 m³ and 12 m³ of sand and stone respectively

Transportation market

In Gulina and Ewa Woredas there are only two transport providers available for providing transport service in the study period. This providers have two Sino-trucks and charged 3000 birr without fuel per day for rent. The Ewa transport provider also have one truck for water and it contains 3 m³. The daily rent price is 1500 birr. The primary market transport provider are Kobo or Alamata towns for Gulina and Yealo Woredas, however the team didn't assessed the price because of security reasons.

However, the team assessed the current market price in Woldiya and Logiya towns from licensed transporters and the daily price is 3000 birr without fuel for one Sino-truck containing 16m³ sand and 12m³ of stone on monthly basis depending on the period and volume of the work. For water transport the suppliers charged 1500-2000 birr on average per day or trip for a trucks that can contain 3 or 4 m³ of water. In Chefera for 3 m³ the transporter charged 500 birr per trip with in the Woreda.

Table 4 Transportation price

	ETB Daily rent rate	Daily rent rate in ETB	Per one trip in ETB quintal	Daily rate in ETB for truck 3 m ³ - 4 m ³
	Sand	Stone	Cement	Water
Kori	3400=3600	3400-3600	50	1500-2000
Chifra	3400=3600	3400-3600	10-15	500-2000
Ewa	3400=3600	3400-3600	30-40	1500-2000
Awura	3400=3600	3400-3600	40-50	1500-2000
Gulina	3400=3600	3400-3600	50	1500-2000
Yalo	3400=3600	3400-3600	60	1500-2000
Teru	3400=3600	3400-3600	70	1500-2000

Note: cement transportation cost for Kori and Teru the market place is Logiya towns and for other Woredas from Woldiya town.

Recommendation

Based on the main findings of the market assessment some of the recommendation are:

One of the finding of the assessment was the climate condition governs the construction time period and the price. From October up to April it is the contented time period for skilled and unskilled labour for construction works in the GIZ-SDR intervention Woredas. From May up to July the climate condition changed and becomes hotter and because of that the working hours

and efficiency of the labour decreased. So it is advisable to start construction work between Septembers up to April.

For the Woredas which didn't have any available licensed suppliers it needs to contact and reach Agreement with the Woreda administration and kebele administration on the usage of sand and stone and water materials before starting construction.

One of the challenge mentioned by contractors is that most of the Masons have minimum experience or participation specifically on water spreading construction works. In all of the GIZ-SDR intervention Woredas there are Masons that are qualified and trained with the help of GIZ-SDR programme. Therefore the programe can act as a platform for contractors to hire this Masons and participate in the construction so as to increase their practical skill and for contractors also it minimize time and cost.

Introduction

The market price assessment conducted for construction of lowland rehabilitation measures in Kori, Chefra, Ewa,Awera,Gulina,Yealo,Teru Woredas in Afar Region from October 15 up to December 01, 2018.

1.1 Objective

The main objective of the market price assessment was to identify the primary or reference market place for labour and also to assess the current market price for skilled and unskilled labour. Furthermore to locate and map the source area for sand, stone, water and cement materials and assess the current market price. Additionally to assess the primary market place for transport providers and identify the current market price to transport the materials to the intervention area.

2.1 Methodology

The overall methodological approach consisted of three distinct phases that were taking place in October and November 2018. The following sub-sections provide an overview and process of each approach.

Desk phase: The assessment was initiated immediately after signing of the Contract.it includes two phases which include preparatory phase is devoted to the design of the assessment tools, which involved identification, developing reviewing and refinement of the research analysis tools (multi-sector market analysis and rapid market appraisal). Also the expert was started field visit Preparations and presented in Addis Abeba at Kick-off Meeting with SDR-ASAL programme for Mutual understanding and agreement on the objectives and the approach of the assignment. After the meeting the expert travelled to Semera and continued the desk review to gain some understanding of the marketing system for the goods and services being

assessed to describe the marketing system and the Price trends and behavior of the markets. The expert also reviewing the secondary data regarding mapping and identification of reference markets for labour, materials and transportation for the seven intervention areas in the region. It also identifying materials (sand, stone, and water) resource areas in the intervention Woredas.

The Field Research was conducted in all intervention woredas from Oct 20 to Nov 7 2018, Data collection (mapping of materials using GPS and price assessment for materials and skilled labour) took place over 12 days in the intervention area or Woredas and 5 extra days for assessing the transport price market data collection in Woldiya and Semera reference market places and also Key informants with construction service providers that are selected for this study. To select the key informants for this assessment the expert utilized Filtering tool which include construction service providers were selected based on construction period with in the Woreda (the contractors time period less than 6-8 month per woreda, type of construction, location) reference market price for cement and transport: it was selected 2 whole sellers for cement price from both in Woldiya and Semmera respectively. The team also selected and interviewed 3 transporters for each intervention Woreda in the same reference market. There are also one expert from Woreda Trade and small scale office or Woreda Finance office selected as a key informant for triangulation purpose and to get all rounded information regarding construction in the intervention Woredas.

The Write-up phase: Revisions were carried out in November 2018. the expert was incorporated the coments that was given by GIZ-SDR and produced the report.

2.2 Data limitation

To minimize the gap the expert used a triangulation method by collecting data from different source. However there are some gaps identified some of the gaps include:

- The secondary data of market price collected from contractors may not be accurate based on different geographical location or site with that of the intervention kebele even if it is the same Woreda.
- The secondary data from government and other sources didn't include for this assessment because it takes longer time than the anticipated time frame. But it can be included and update this assessment.
- The contractors provided the price for Masons for construction of schools, health centers not for water spreading weirs for some woredas.
- The prices given for materials such as sand, water and stone for some Woredas (which don't have licensed suppliers) are depend on basically by agreement and negotiation with the Woreda and kebele administration. So the current price might need updating during construction phase.

3. Gulina Woreda market assessment

3.1 Over view market environment

Over the past five years the size of market place, number of traders, volume and range of goods sold, and number of customers has expanded in Gulina Woreda ,Kelewan town for town communities and the nearby kebeles and Woredas, led by rising populations. There are two main routes to and from Kelwan town (the Woreda centre) or two supply routes determined the market environment across Gulina woreda: one connecting the Woreda with the region capital Semera through Chefera and the other route linking to neighbouring Kobo and Alamata towns. The main source of reference market for supplying of goods such as rice, wheat, maize, sugar, oil, clothes, and all types of household items. Hygiene, sanitation and cement and other building materials for construction are mainly purchased from Kobo or Alamata town market place. The market place in Kelewan town are characterised as 'kiosk' style and some 'street' stalls with minimal storage facilities and stock.

There is public transport available from Kobo to Kelewan town. Also the nearby communities use of "Gari" (a two wheel tralior that is pulled by donkeys) is also widespread used in particular helping to transport goods such as food items and construction materials water, sand and stone from the material source to the Kelewan town and nearby kebeles.

3.2 Labour market assessment

The demand for the experienced masons are needed based on the type and volume of work skill required for that specific construction (school construction, health centre construction etc...).According to the informants from Woreda government officials, when the government (Woreda or regional) implemented medium or big construction then the experienced masons were taken from Kobo or Alamata and sometimes from Logiya towns by contractors to work on that construction. The contractors participating for this study also mentioned that they fetch the experienced masons from Logiya , Kobo or Alamata towns for the construction implemented within the Woreda. During the assessment, the team also observed that there are private owned houses under construction by beginner masons or masons in Kelewan town to meet the demand. Furthermore, in some construction sites and the experienced masons and Foremen are arrived from Kobo and Alamata town. The nearest reference market for the experienced masons therefore are located Logiya,Kobo or Alamata town.

During the assessment, the unskilled labour is available in Kelewan town. The work norm for daily labour cost is calculated as per experience and location of the construction site from the Kelewan town. Thus the inexperienced daily labour price is 120 – 130 birr depending on the distance of the construction sites from Kelewan town. For the experienced unskilled labour also it costs 150-170 birr depending on the distance. The cost rate for loading and unloading is depending on the type of items and distance. For instance for cement the unloading price was 12 birr per quintal.

According to all informants participated in the assessment also stated that, the pricing for skilled labour was determined by the type of construction works, the distance from Kelewan town and the weather condition. Thus, the price of skilled labour price and the unskilled labour is listed in the table below.

Table 6. Skilled Labour

	Daily rate
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-350
Mason (can construct 1-2M3/day)	270-300
Beginner mason (can construct 0.5-1 M3/day)	200-240
Foremen	300-350

Table 7. Unskilled labour price

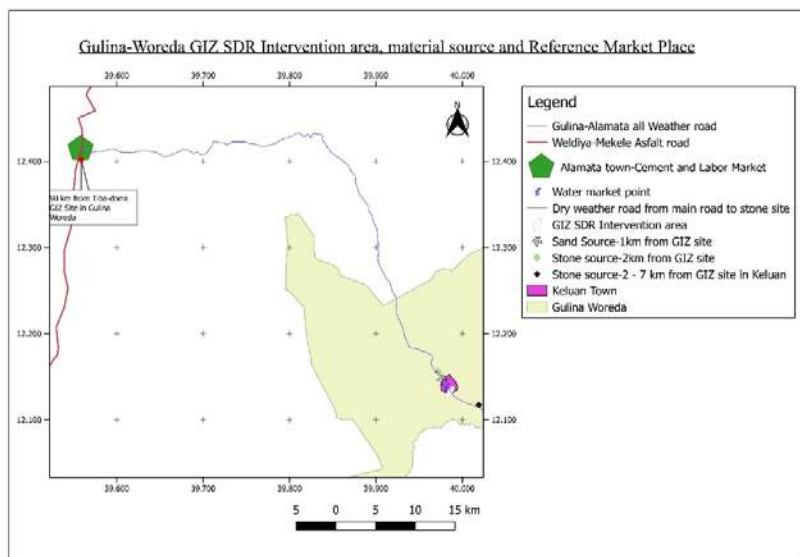
	Daily rate in ETB	Unit	Unit capacity per day
Site clearance	120-160	m ²	
Excavation	120-160	m ³	
Back fill	120-160	m ³	
Loading	10-12 per item	m ³	
Unloading	10-12 per item	m ³	
Watering of construction	150+20 per watering day	m ³	
Site guard	1000-1100	Day/night	

3.3 The material market assessment

The source for sand, water and stone are available within the Woreda. There is no cement supplier within the Woreda and most of the customers bring the cement from Alamata, Mekele or Kobo based on the volume needed for construction. During the study period the price for one quintal of PPC type of Cement is 240 birr in Woldiya town. But from Mekele at Mosobo cement factory the gate price for one quintal PPC is 205 birr. The source area for sand and water is 2 Km far from Tibadora (GIZ-SDR intervention kebele).

Currently there are two licensed supplier unions are selling the sand and stone materials. The suppliers price for 16 m3 sand including loading are 1600 birr and for 12 m3 stone the price of stone including loading from the suppliers are 1500-1600 birr on average. (See the map1 below)

Map1: Gulina Woreda map of material source and Reference Market place



The main source of water is Gulina River to the nearby construction sites. In addition to the river there are some private home owners supply water for sell in Kelewan town. Daily labour price paid to fill water from Gulina River but in Kelewan town the price for 25 litter container of water is 1 birr and additional daily labour cost of 450 birr to fill the 3m3 of water container. To fill 3 m3 container the daily labour charged 450 birr.

During discussion with informants participated for this assessment, revealed that to collect water from water source for the kebeles far from Gulina River or Kelewan town, it requires discussion and agreement from the Woreda level Water Office and kebele administration. See the table below the prices of sand, stone, cement, water.

Table 8. Material price

	(Birr) cost in ETB	Total volume Unit
Sand	1500-1600	16 m3
Stone	1500-1600	12m ³
Cement	220-245	1 quintal
Water	0.15	1 litter

Note: The unit cost for sand and stone was calculated for loading 16m³ and 12m³ respectively

The price of cement was collected in Woldiya and Chefra towns.

3.4. Transportation market assessment

In Kelewan town there is one transport provider within the Woreda in the study period. The provider have one Sino-truck and charged 3000 birr without fuel per day for rent. The primary market for transport provider are Kobo or Alamata towns, however the team didn't assessed the price because of security reasons.

The team assessed the current market price in Woldiya town from licensed transporters and the daily price is 3000 birr without fuel for one Sino-truck containing 16m³ sand and 10m³ of stone on monthly basis depending on the period and volume of the work. For 3m³ water container truck it charged 1500-2000 birr on average per day or trip.

Table 9. Transport price

TYPE of transport	Daily rate in ETB	Daily rate in ETB	Daily rate in ETB	Daily rate in ETB
	Sand	Stone	Cement	Water
Sino-truck	3000	3000	3000	1500-2000

4 .Kori Woreda market assessment

4.1 The general market environment

In Kori Woreda the main local market area is Guyaa (locally called 60ty) located at the highway that connects Semera to Mekele. Guyaa town are characterized small market that have small shops as 'kiosk' style and some shops with minimal storage facilities and stock. The main source of reference market for supplying of all types of household items and also Cement and other building materials for construction are mainly purchased from Logia town. The distance from Logiya to Guyaa is 110 km.

There is no public transport available from Semera to Woreda center or Guyaa town and also in the use of "Gari" (a cart that is pulled by donkeys) is also widespread used in particular helping to transport goods such as food items and construction materials such as water, sand and stone from the material source to the Guyaa town and nearby kebeles.

4.2 Labour market assessment

The same with Teru Woreda, Kori Woreda also have no available experienced masons permanently stationed. The experienced Masons temporary available only the government (Woreda or regional) implemented medium or big construction. So the experienced masons were coming from Logiya or Semmera town by contractors during the construction work. During the assessment period the team also observed that there are beginner masons and Masons available in Guya town that are graduated from GIZ-SDR programe. Thus the team understands that the nearest reference market for experienced masons and Foremen are available at Logiya or Semera town. According to all KII the work norm for skilled persons was calculated and set in terms of per day price or the contractors award the experienced mason a contract for fixed type of work. Depending on the season the daily rate started from **300 birr up to 320 birr on average**.

In Kori Woreda unskilled labour is available in Guya town. The work norm for daily labour is calculated as per daily rate for most daily works listed in the table below except for loading and unloading works. (For loading and unloading the cost rate is depending on the type and distance of the items that are loading or unloading. For instance for cement the unloading price was **7-10 birr per quintal**). According to contractors, starting from September to April on average the daily rate was **150 birr** per day if the work area is not far from their houses. However after April up to July the daily rate was increased up to **170 birr** depending on the construction area even if the construction site is near to their houses or not because it is Hottest time and challenging to work.

Table 10. Kori Woreda Skilled Labour

	Daily rate
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-320
Mason (can construct 1-2M3/day)	250-280
Beginner mason (can construct 0.5-1 M3/day)	200-220
Foremen	7,500 per month

Table 11. Unskilled labour price

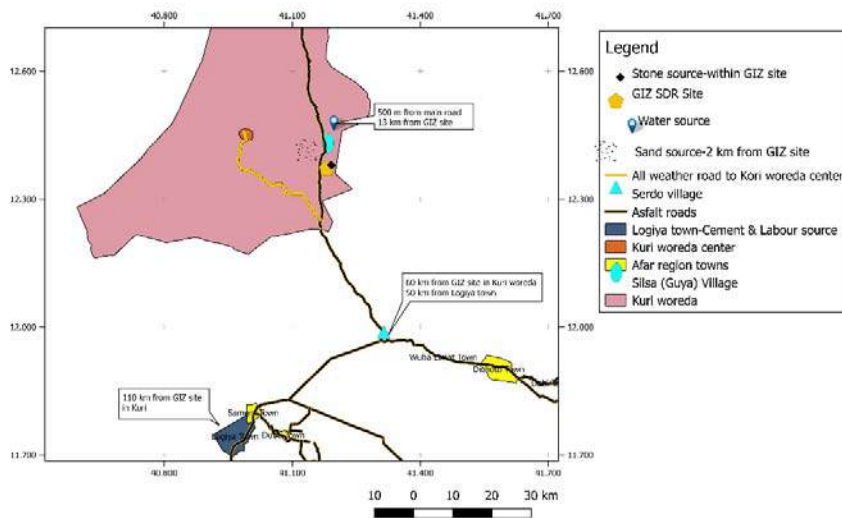
	Daily rate in ETB	Unit
Site clearance	150-170	m ²
Excavation	150-170	m ³
Back fill	150-170	m ³
Loading	7-10 per item	m ³
Unloading	7-10 per item	m ³
Watering of construction	150+20 per watering day	m ³
Site guard	1100-1200	Day/night (monthly)

4.3 The material market assessment

The source for sand and stone and water are available in Kori Woreda. But there are no cement supplier shop available in Guya town. Therefore the reference available market is in Logia and it is 105-110 km far from Guya town (intervention kebele). In Logiya the PPC type of cement is sold during the study period is 250 birr and 260birr respectively (produced by Mosobo cement factory in Mekele and National cement factory). The sand source is available and the distance from the intervention GIZ-SDR site is approximately 2 km. For the stone, the source area is available and it is 200m far from the intervention site. (See the Map 2 below)

Map2: Kori Woreda source Map

Kuri woreda GIZ SDR implementation site and resource map



According to the contractors interviewed there is one licenced supplier for sand and stone. So the supplier set the price depending on the volume of material, distance from the construction site and the season in which the material was needed. For instance for loading sand the price was increased during May up to July (hottest time) because of the weather the working hours was limited to early morning or late afternoon it also took longer time to fill one Sino-truck by daily labourers . During Oct- April is the contented time period for loading the sand from the seasonal river bed. The cost for loading 16 m³ of sand was 1400-1650 birr on average including daily labour for loading depending on the season and for stone 12 m³ 1450-1500 birr respectively before 7 month ago.

The team also confirmed that there is one supplier for sand and stone near the intervention kebele. According to the supplier the current price rate for 16m³ of sand including labour is **1400 birr** and for 12 m³ of stone including loading it charges **1500 birr** respectively.

The government /administrative departments which are responsible for water services and decisions regarding water supplies are the Woreda level Water Office and kebele leader. Water is a public good in Kori Woreda, and is sourced differently across the different kebeles within the Woreda. For instance in Guya kebele (intervention area) for the settled households, the main source of water are various forms of reservoirs – birkads, ponds, or plastic lined ‘ROTO’, and plastic water storage tanks and seasonal river that are used for human consumption (drinking, cooking, and washing), livestock feed, or for other use such as for construction. Climatic variations govern water accessibility for public service delivery.so seasonality plays an important role in using the water for construction purpose in the Woreda.

In intervention kebele water is a public resource and for contractors it needs agreement both with the kebele administration and Woreda administration as well to use from the dam that is

13 km far from the intervention site. The daily labour price to fill **3m³ of water is 600 birr** from the dam. The dam contained more water in Sep-January and started to decrease after wards. The other available choices for water source is Logiya town and 110 KM far from the intervention site. The price for **14m³ is 5000 birr** per one trip. See the table below the prices of sand, stone, cement, water)

Table 12. Material price

	Loading cost in ETB	Unit
Sand	1450-1500	m ³
Stone	1500	m ³
Cement	250-260	1 quintal
Water	0.20	m ³

Note: **for sand and stone the loading cost is included for 16m³ and 12m³ respectively.**

The price of cement was collected in Logiya town.

4.4. Transportation market assessment

For Kori woreda the transportation of water, sand and stone to the construction site falls into two main types: Large truckers who are either contracted by private contractors, or donkey-cart owners delivering smaller quantities of sand, stone and water to households as well as businesses (construction sites).

During the study period there was not any transporter stationed in the Woreda for providing transport service. All the KII interviewed stated that the nearest market area for trucks are available in Logiya town. The contractors also mentioned that it is advisable to rent a truck from Logiya town from transporters depending on the volume of work. The cost for monthly rent was 80,000 birr and 85,000 birr before 8 month for loading 16m³ sand and 12m³ of stone.

The team assessed the current market price in Logiya town from licensed transporters and the price is between 87,000 birr 90,000 birr for one Sino-truck containing 16m³ sand and 12m³ of stone on monthly basis depending on the period and volume of the work. For water that can contain 3 m³ the daily or per trip price from the dam is 1500-2000 birr. For cement to transport cement from Logiya to Kori Woreda Guya kebele (intervention area) is 40-50 birr per quintal depending on the volume (40 birr is to transport not less than 100 quintal and 50 birr is also not less than 50 quintal). One trip cost of transportation for 14m³ litter of water is 4500-5000 birr to Kori Woreda Guya kebele construction area. The price listed in the table below.

Table 14. Transportation price

TYPE of transport	Unit cost in ETB	daily cost in ETB	Unit cost in ETB	Daily/ trip cost in ETB

	per m ³	per m ³	per quintal	per 3m ³
	Sand	Stone	Cement	Water
Sino-truck	2800-3000	2800-3000	40-50	1500-2000
donkey-cart		50		

5. Yealo Woreda market assessment

5.1. The general market environment

The main market place for the Kebeles in the Woreda is Yelao town. Yelao town market is a medium market characterized by a few smaller retailers and a number of smaller kiosk / street vendors.

Currently in the Woreda the construction sector is increasing led by newly construction of private owned houses with in the Yealo town and other construction works owned by government or non -governmental organization in Yealo town or the kebeles within the Woreda. However some of the inputs needed for the goods and services (skilled labour and cement) for construction was not available in the town. The reference market for purchasing some of the goods and services are mainly from Alamata and Kobo towns.

5.2. Labour market assessment

According to the informants discussion the beginner masons are demanded for the construction of privately owned houses and sometimes it might need masons for the work. The experienced labour market is demanded by contractors for big or medium type of construction owned by local government or NGO. However, the experienced masons are not available within the woreda so the primary market for experienced masons is in Alamta, Kobo or Semera towns.

The contractors and Woreda government experts also mentioned that the work norm and pricing for skilled persons was calculated and govern by two ways. The first modality of pricing include by awarding or sub-contracting the experienced mason the physical construction work with fixed amount and time period. The contractor provide the materials to the construction site. The labour cost for skill or unskilled labour was covered by the experienced mason. The other modality of pricing was set as per day rate. In this modality the contractors also covered the transportation cost for the experienced mason. Depending on the season the daily rate started from 300 birr up to 350 birr on average for the experienced mason.

Furthermore the same with all the other Woredas for unskilled labour, the work norm for daily labour is calculated as per daily rate for most daily works listed in the table below except for loading and unloading works. For loading and unloading the cost rate is depending on the type and distance of the items that are loading or unloading. According to contractors, the cost for unskilled labour determined by the distance from Woreda centre. Starting from September to April if the work is in Yealo town or not far from Yealo town it was 120 birr per day on average, but the daily rate was 150 birr per day if the work area is far from Woreda centre. However after April up to July the daily rate was increased up to 160 birr depending on the construction area because it is Hottest time and challenging to work. The next tables illustrate the current market price of skilled and unskilled labour in Yealo Woreda.

Table15 Skilled Labour

	Daily rate
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-350
Mason (can construct 1-2M3/day)	270-300
Beginner mason (can construct 0.5-1 M3/day)	200-230
Foremen	270

Table 16. Unskilled labour price

	Daily rate in ETB	Unit	Unit capacity per day
Site clearance	120-160	m ²	
Excavation	120-160	m ³	
Back fill	120-160	m ³	
Loading	10-12 per item	m ³	
Unloading	10-12 per item	m ³	
Watering of construction	150+20 per watering day	m ³	
Site guard	1000-1100	Day/night (monthly)	

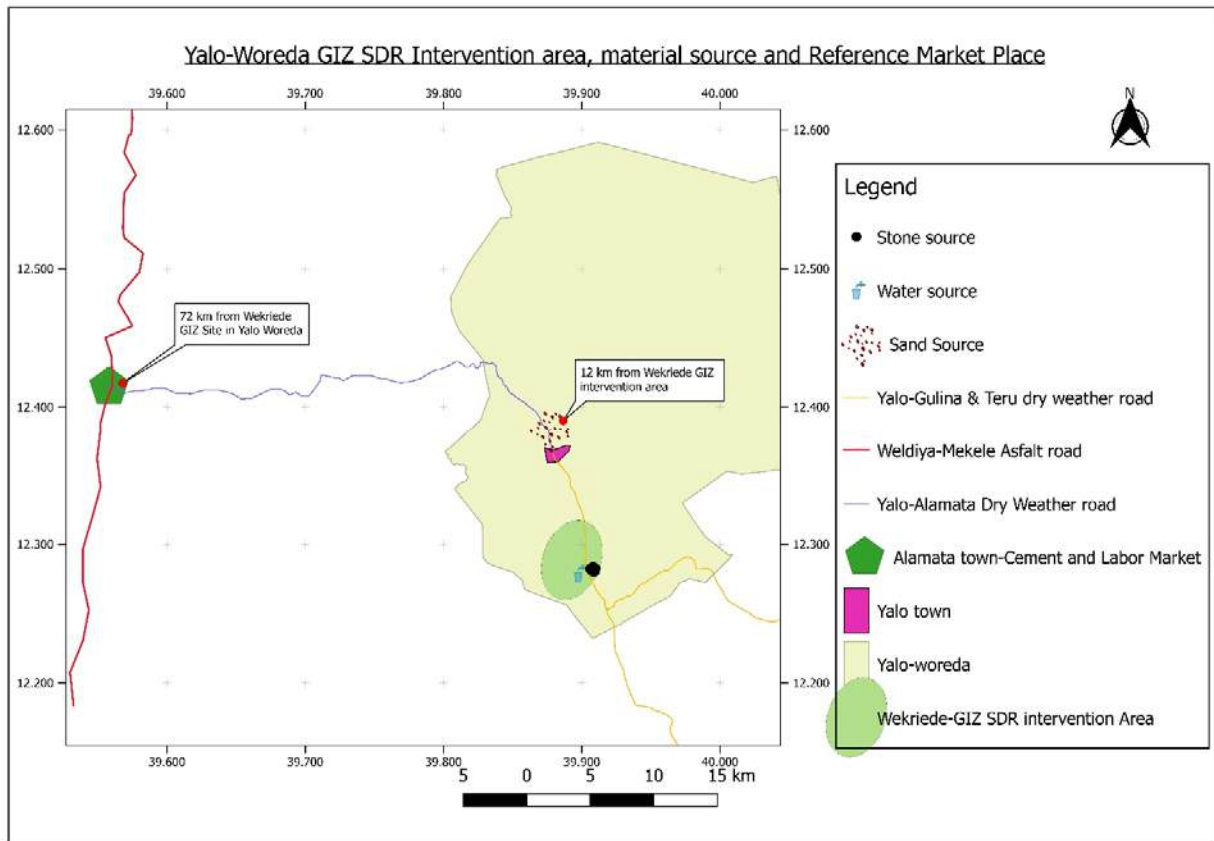
5.3. The material market assessment

The material source like sand, water and stone are available within the Woreda. There is no cement supplier within the Woreda and most of the customers bring the cement from Alamata or Mekele depending on the volume needed for construction. During the study period the price for one quintal of PPC type of Cement is **220 birr** in Woldiya town. But from Mekele at Mosobo cement factory the gate price for one quintal PPC is **205 birr**. The source area for sand is 12 Km far from Wokedredi (intervention kebele). The stone and water source area is 200 m within the GIZ-SDR intervention kebele.

According to the contractors and local government officials, currently there is one licenced supplier union are there for selling the sand stone materials. It also noted that before going to the material source it requires contacting the Woreda administration and kebele administration

for loading the sand and stone materials. After reaching agreement and getting approval, the price for 16 m3 sand and for 12 m3 of stone is **1200 and 1300 birr** respectively including loading of the materials. (See the map 3 below)

Map 3. Yealo Woreda material source and primary and reference experienced Mason and Cement market



During the discussion with informants, the Woreda level Water Office and kebele administration are responsible for water services and decisions regarding the usage of water resource in Wokeredi kebele. The water source is available and collected from water tanker that is giving service to the communities, so depending on the agreement with the Kebele leader or Woreda administration (**for instance 350 birr paid for the kebele as a running cost or Fuel cost for the Pump**) it can be used as a water source.

(See the table below the prices of sand, stone, cement, water)

Table 17. Material price

	Unit cost in ETB	Unit
Sand	1200-1300	m ³

Stone	1200-1300	m ³
Cement	220-240	1 quintal
Water		m ³

Note: The unit cost for sand and stone was calculated for loading 16m³ and 12m³ respectively. The price of cement was collected in Woldiya town.

5.4. Transportation market assessment

All the KII discussion the nearest market area for trucks are available in Kobo and Alamata towns. The contractors also mentioned that it is advisable to rent a truck from transporters depending on the volume of work. The cost for monthly rent was **2500 birr to 3,000 birr** before 8 month for loading 16m³ sand and 12m³ of stone.

The team assessed the current market price in Woldiya town from licensed transporters and the price is between **3,000 birr** for one Sino-truck containing 16m³ sand and 12m³ of stone on monthly basis depending on the period and volume of the work. The daily or per trip price to transport water 3 m³ is **1500-1700 birr**. The price listed in the table below.

Table 18. Transport price

TYPE of transport	Daily rent cost in ETB per m ³	Daily rent cost in ETB per m ³	Daily rent cost in ETB	Daily rent cost in ETB per 3 m ³
	Sand	Stone	Cement	Water
Sino-truck contained 16 m ³	2800-3000	2800-3000	2800-3000	1500-1700

6. Teru Woreda market assessment

6.1. The general market environment

In Teru Woreda, town there are two main routes to and from Teru town or two supply routes determined the market environment across Teru woreda: one connecting the Woreda with the region capital Semera and the other route linking trading to neighboring Gulina Woreda. The main source of reference market for supplying of household items and Hygiene, sanitation and cement and also other building materials for construction are mainly purchased from Logia town market place. And for the other items such as Vegetables are traded every Tuesday in Teru town with traders that are coming from Chefra town. The market place in Teru town are characterized as 'kiosk' style and some 'street' stalls with minimal storage facilities and stock. There is public transport available from Semera to Teru town and also in the Woreda Centre (Teru town) there are few 'Bajaj' (three-wheelers) also play the routes between Teru town and surrounding Kebeles for transport. The use of "Gari" (a two wheel trailer that is pulled by donkeys) is also used in transporting goods such as food items and construction materials like water, sand and stone from the material source to the Teru town and nearby kebeles.

6.2. Labour market assessment

The demand for the experienced masons are needed only when the government (Woreda or regional) implemented medium or big construction. The Woreda government experts mentioned that the experienced masons were coming from Logiya or Semmera town by contractors to work on construction. The contractors participating for this study also mentioned that they bring the experienced masons from Logia town because there are no available experienced masons within the woreda. During the assessment period the team also observed that there are very few private owned houses under construction by beginner masons in Teru town. Thus, the nearest reference or primary market for experienced masons and Foremen are available at Logiya or Semera town. According to all KII the work norm for skilled persons was calculated and set in terms of per day price or the contractors award the experienced mason a contract for fixed type of work.

The team also observed that unskilled labour is available in Teru town or Debaho kebele (intervention kebele). The work norm for daily labour cost is calculated as per day for most daily works listed in the table below except for loading and unloading works. (For loading and unloading the cost rate is depending on the type of items that are loading or unloading. For instance for cement the unloading price was **12 birr per quintal.**)

Table 20 Teru Woreda Skilled labour price

WOREDA:	Daily rate
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TERU Woreda	
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-350
Mason (can construct 1-2M3/day)	250-280
Beginner mason (can construct 0.5-1 M3/day)	200-220
Foremen	8,000 per month

Table 22. Unskilled labour price

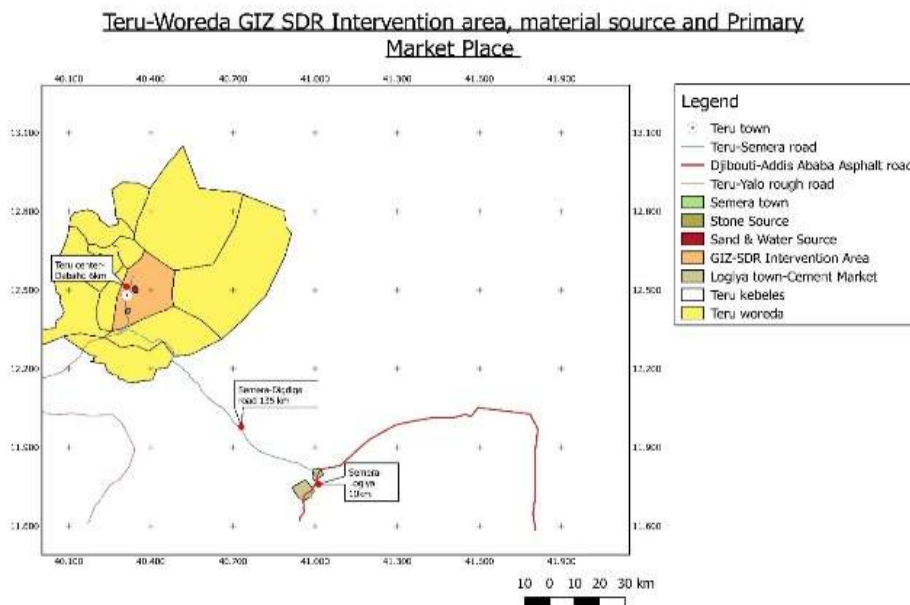
	Daily rate in ETB	Unit	Unit capacity per day
Site clearance	150-160	m ²	
Excavation	150-160	m ³	
Back fill	150-160	m ³	
Loading	8-12 per item	m ³	
Unloading	8-12 per item	m ³	
Watering of construction	150+20 per watering day	m ³	
Site guard	1000-1200	Day/night (monthly)	

6.3 The material market assessment

The source for sand and stone and water are available in the intervention Woreda. There is a shop that provides a small volume of cement for customers in Teru town. One quintal of PPC type of cement is sold 400 birr. But for bigger volume of quintals of cement the reference available market is in Logia. In Logiya the PPC type of cement is sold during the study period is **250 birr and 260birr** respectively (produced by Mosobo cement factory and National cement factory). The source for sand and water was available in the same spot but for stone the source area is 6 km far from the intervention kebele.

The quality of the road for stone is all weathered, but the road quality for sand source is dry weathered and it is difficult for big truck to drive for loading the sand in rainy season. (See the map 4 below)

Map 4: Teru Woreda Material source and Reference market for experienced Mason



According to the contractors interviewed the cost for sand and stone were set through contacting and negotiating to kebele leader or tribe leader. Then after reaching consensus between kebele leader and contractor the contractor started to use the sand and stone and pay to the daily labours only for a loading cost. For instance based on the contractors interview the cost for loading 16 m³ of sand was 900-1000 birr and for stone 12 m³ 900-1000 birr before 7 month ago.

According to informants, Woreda government is in a process to form a youth cooperative for providing sand and stone in Teru town. Currently this youth charged the price for loading the sand and stone are **1000 birr** for 16m³ and for loading 12 m³ is **1000 birr** respectively.

The team also observed that before loading for the stone and sand from the source area, it needs to contact and reach agreement with the kebele leader or Woreda administrator in detail (volume, time period etc...).But still the team observed and understands there are some youth cooperatives are on the way to form a cooperative for providing stone and sand for Teru town. According to them the cooperative charged for loading **1000-1100 birr** for 16m³ of sand in Debaho kebele and for loading stone **950-1000 birr for 12 m³**.

In Debaho kebele (intervention area) for the settled households, the main source of water are various forms of reservoirs – birkads, ponds, or plastic lined 'ROTO', and increasingly, plastic water storage tanks and seasonal river. Water stores that are used for human consumption (drinking, cooking, and washing), livestock feed, or other production (such as construction).

Seasonality and rain fall determine water availability for public service delivery. Shorter or delayed rains, caused by climatic variations, have multiple layers of negative effects on water

availability in Teru Woreda, intervention kebele (Debaho kebele).so seasonality plays an important role in using the water for construction purpose in the Debaho kebele.

In Debaho kebele it needs agreement both with the kebele administration and Woreda administration as well to use from the reservoirs. The other available choices for water source is the nearby seasonal river (3-5 KM) far from Debaho kebele and pay daily labour 0.25 cents per litre to fill a 3 m³ water container. The water points in Teru town still needs contacting the Woreda administration then pay 1 birr for 25 litter and transport it to Debaho (2 KM from the water source). See the table below the prices of sand, stone, cement, water

Table 23. Material market price

	cost in ETB	Unit
Sand	1000	m ³
Stone	1000	m ³
Cement	250-260	1 quintal
Water	0.25	One litter

Note: the cost for sand and stone was calculated for loading 16m³and 12m³ respectively.

The price of cement was collected in Logiya town.

6.4. Transportation market assessment

In Teru woreda the transportation of water, sand and stone is using donkey-cart owners delivering smaller quantities of sand, stone and water to households as well as businesses (construction sites). The price listed in the table below.

All the informants stated that the nearest market area for transport provider are available in Logiya town. The contractors also mentioned that to rent a truck from Logiya town from transporters depending on the volume of work and time period. The cost for monthly rent was 88,000 birr and 90,000 birr plus cost for fuel before 8 month for loading 16m³ sand and 12m³ of stone.

The team assessed the current market price in Logiya town from licensed transporters and the price is between **3,000** birr for one Sino-truck containing 16m³ sand and 12m³ of stone on dailiy basis depending on the period and volume of the work. To transport cement by transport providers for one trip from Logiya to Debaho kebele (intervention area) is **80-100 birr** per quintal depending on the volume (80 birr is to transport not less than 100 quintal and 100 birr is also not less than 50 quintal).

For water truck providers offer for the daily rent that contained for 3 m³ litter is **2000 birr** in Logiya town.

Table 24. Transportation price

TYPE of transport	cost in ETB per daily	Daily rate cost in ETB	One trip cost per	Daily rate cost in ETB

	rate		quintal in ETB	
	Sand	Stone	Cement	Water
Sino-truck	3000	3000	80-100	2000
donkey-cart	50	50		60-80 birr for 250- 300 litter

7. Ewa Woreda market assessment

7.1 The general market environment

The key market places are mostly along main major roads and are located at the Woredas centres in most of the Woredas in zone 4. In Ewa woreda the main market place for the Kebeles is Alle the Woreda centre. The Alle market is medium market characterised by a few smaller wholesalers (with one or two storage facilities), numerous retailers in permanent fixtures, and a number of smaller kiosk / street vendors.

Unlike the other Kebeles in Ewa Alle kebele (currently the Woreda centre) has expanded in number of traders, volume and range of goods sold, and number of customers, led in part through local Woreda centre, and in part by rising populations in the Kebele. Because of that the construction of small private owned houses are increasing. Chefra town is the main source of reference market for supplying of all types of household items and also for supplying building materials for construction.

7.2 Labour market assessment

In Ewa the main market place for labour is Alle town. The beginner masons and unskilled labour is demanded currently in Alle because of private and government construction is expanded. However the current type of construction can be constructed by a beginner mason and masons which need some basic skill and experience. The experienced masons were coming from Logiya or Semmera town by contractors during the medium or big construction work implemented in the Woreda. During the assessment period the team also observed that there are beginner masons and Masons available in Alle town. According to contractors and Woreda government experts the nearest reference market for experienced masons and Foremen are available at Semera town or Woldiya town. According to all Key informant interview the pricing of the work norm for skilled persons was calculated and set using two modalities. The first modality of pricing include by awarding or sub-contracting the experienced mason the construction work with fixed amount and time period. In this modality the contractor provide the materials to the construction site. The labour cost for skill or unskilled labour was covered by the experienced mason. The other modality of pricing was set as per day rate. In this modality the contractors also covered the transportation cost for the experienced mason. Depending on the season the daily rate started from 300 birr on average for the experienced mason.

Furthermore for unskilled labour the work norm for daily labour is calculated as per daily rate for most daily works listed in the table below except for loading and unloading works. For loading and unloading the cost rate is depending on the type and distance of the items that are loading or unloading. According to contractors, starting from September to April if the work is in Alle town or not far from Alle town it was 120 birr per day on average but the daily rate was 150 birr per day if the work area is outside from Alle town. However after April up to July the daily rate was increased up to 160 birr depending on the construction area because it is Hottest

time and challenging to work. The next tables illustrate the current market price of skilled and unskilled labour in Ewa Woreda.

Table 25. Ewa Woreda Skilled Labour

	Daily rate
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-330
Mason (can construct 1-2M3/day)	270-300
Beginner mason (can construct 0.5-1 M3/day)	200-230
Foremen	270

Table 27. Unskilled labour price

	Daily rate in ETB	Unit	Unit capacity per day
Site clearance	120-160	m ²	
Excavation	120-160	m ³	
Back fill	120-160	m ³	
Loading	6-8 per item	m ³	
Unloading	6-8 per item	m ³	
Watering of construction	150+20 per watering day	m ³	
Site guard	1000-1100	Day/night (monthly)	

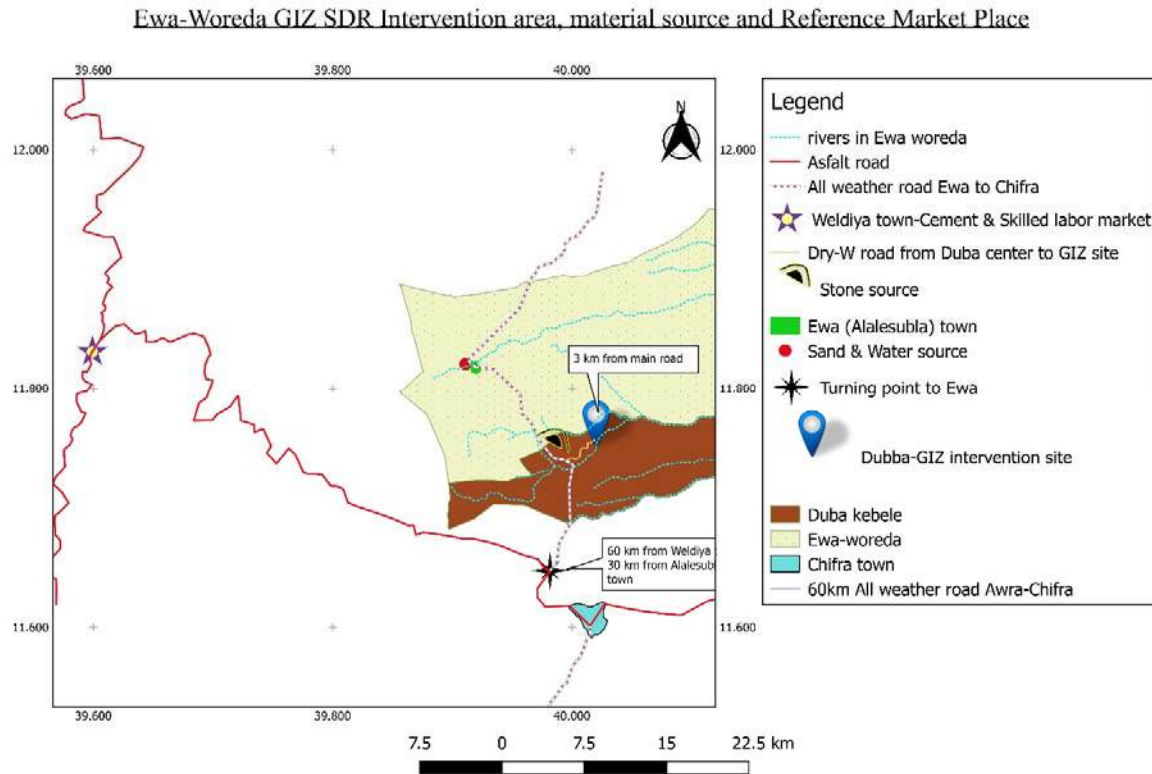
7.3 The material market assessment

Sand, stone and water are available in Ewa Woreda. But for cement there is no available shop or source. Therefore for medium volume the PPC cement is available in Chefera town (245 birr per quintal) but for bigger volume (more than 100 quintals) the reference available market is in Woldiya town (220 birr per quintal). The source area for water and sand is Alle River and for stone the source area is Regeden kebele. The road quality to the source area for both sand,

water and stone is all weathered and give service in all seasons of the year. The distance from the source for sand and water to GIZ intervention kebele is approximately 19 km and for stone the distance from the source to the intervention kebele (Duba kebele) is approximately 7 km. Alle River is all seasoned river and it has more water in Sep-march and started to show a decreasing trendy after wards.

According to the contractors and local government officials interviewed there weren't any formal licenced suppliers available for the materials to purchase at the moment. Before going to the material source it needs to contact the Woreda administration and kebele administration for permission to use the materials because the materials are public goods. After getting approval there are unions available organized by the Woreda as a daily labour for loading the sand and stone materials. This unions charged for loading the sand and stone materials. The team also interviewed one union for the current loading price and for 16 m³ sand and for 10 m³ is 1000-1100 birr.(See the map 5 below)

Map 5: Ewa Woreda material source and reference market of experienced Mason and cement



According to the contractors interviewed The Woreda level Water Office and kebele administration are responsible for water services and decisions regarding the usage of water resource. Like sand and stone materials it needs permission (the agreement include the spot, time for collecting water from the river because the local pastoralist also use the river for their animals and for home consumption) to collect water from the Alle river. But all the informants mentioned that there 0,15 cents paid for filling the water container truck from the water resource.

(See the table below the prices of sand, stone, cement, water)

Table 28. Material price

	Unit cost in ETB	Unit
Sand	1000-1100	m ³
Stone	1000-1100	m ³
Cement	220-245	1 quintal
Water	0.15	m ³

Note: The unit cost for sand and stone was calculated for loading 16m³ and 10m³ respectively.

The price of cement was collected in Chefra and Woldiya town respectively.

7.3 Transportation market assessment

During the study period there was only one transporter stationed in the Woreda for providing transport service. The price for daily rent of a Sino-truck is 3000 birr per day without fuel and also for water truck of 4 m³ is 1700-2000 birr per trip. All the KII interviewed stated that the nearest market area for trucks are available in Woldiya town. The contractors also mentioned that it is advisable to rent a truck from Woldiya town from transporters depending on the volume of work. The cost for monthly rent was 90,000 birr before 8 month for loading 16m³ sand and 12m³ of stone.

The team assessed the current market price in Woldiya town from licensed transporters and the price is 3000 birr for one Sino-truck containing 16m³ sand and 12m³ of stone on monthly basis depending on the period and volume of the work. But for cement to transport cement from Woldiya to Ewa (intervention area) is 50-60 birr per quintal depending on the volume (50 birr is to transport not less than 100 quintal and 60 birr is also not less than 50 quintal). The price listed in the table below.

Table 29. Transporting market

TYPE of transport	Daily rent cost in ETB per 16 m ³	Daily rent cost in ETB Per12 m ³	Per one trip in ETB per quintal	For 4m ³ cost in ETB per m ³
	Sand	Stone	Cement	Water
Sino-truck	3000	3000	40-50	2000
donkey-cart				

8. Awra Woreda market assessment

8.1 The general market environment

The Woreda centre or Awera town market is ordinary market characterized by a few smaller wholesalers (with one or two storage facilities), numerous retailers in permanent fixtures, and a number of smaller kiosk / street vendors.

Currently the Woreda centre has expanded in number of traders, volume and range of goods sold, and number of customers. Because of that the construction of small private owned houses are increasing. Chefra and Kelewan towns are the source of reference market for supplying of some of the household items and Kobo town is for supplying materials and services for construction.

8.2. Labour market assessment

The main market place for labour is Woreda center. According to the informants interviewed the town is expanded and new private owned houses constructed therefore beginner masons and unskilled labour is demanded. The experienced masons were coming from Kobo or Semmera town by contractors during the medium or big construction work implemented in the Woreda according to contractors. According to all KII the work norm for skilled persons was calculated and set using two modalities. The first one is by awarding or sub-contracting to implement the physical work of the construction. In this modality the contractor provide the materials but the labour cost for skill or unskilled labour was covered by the experienced mason. The other modality of pricing was set as per day rate for estimated physical work. In this modality the contractors also covered the transportation cost for the experienced mason. Depending on the season the daily rate started from 300 birr on average for the experienced mason.

Furthermore, for the unskilled labour the pricing for daily labour is calculated as per daily rate for most daily works listed in the table below except for loading and unloading works. For loading and unloading the cost rate is depending on the type of the item and the distance. According to contractors, the cost for unskilled labour determined by the distance from Woreda center to the construction site and also the experience and knowhow of the work. Starting from September to April if the work is in Woreda centre town or not far from Awera town it was 120 birr-130 birr per day on average depending on the experience. The daily rate was 150 birr per day if the work area is outside from Woreda centre. However after April up to July the daily rate was increased up to 160 birr depending on the construction area because it is Hottest time and challenging to work. The next tables illustrate the current market price of skilled and unskilled labour in Awera Woreda.

Table 29. Awera Skilled Labour

	Daily rate
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-330
Mason (can construct 1-2M3/day)	270-300

Beginner mason (can construct 0.5-1 M3/day)	200-230
Foremen	270

Table 30. Unskilled labour price

	Daily rate in ETB	Unit	Unit capacity per day
Site clearance	120-160	m ²	
Excavation	120-160	m ³	
Back fill	120-160	m ³	
Loading	6-10 per item	m ³	
Unloading	6-10 per item	m ³	
Watering of construction	150+20 per watering day	m ³	
Site guard	1000-1100	Day/night (monthly)	

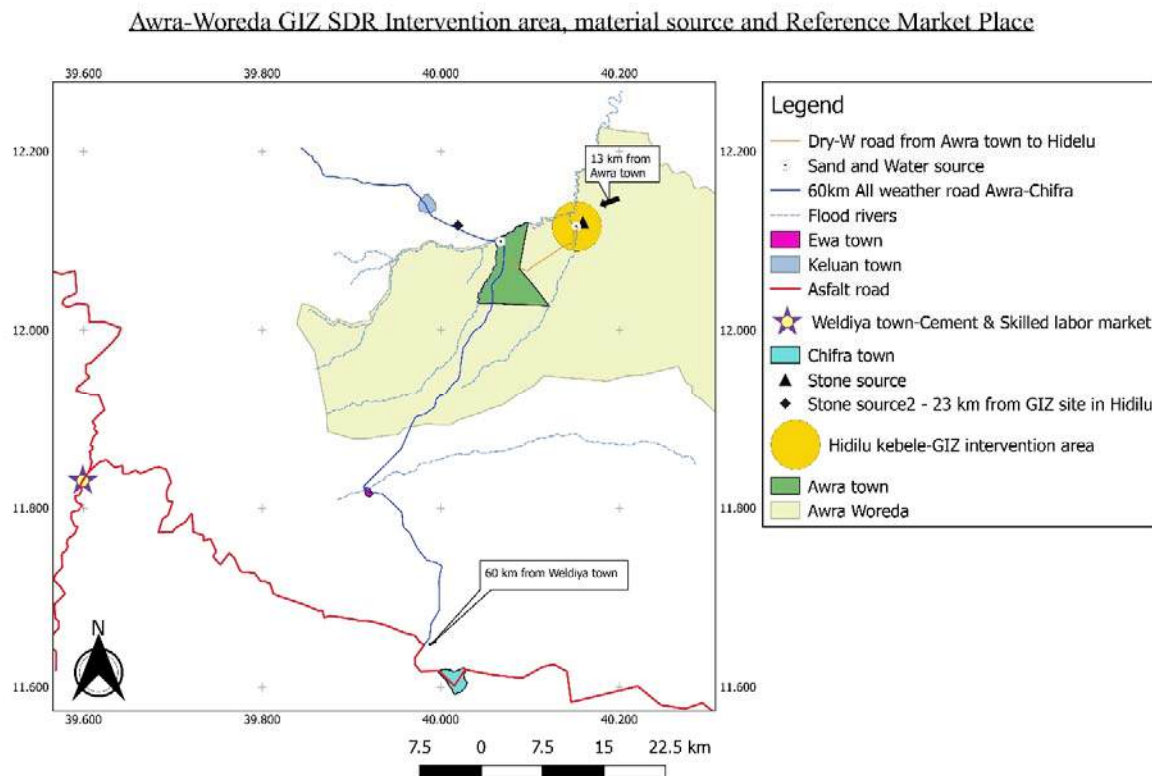
8.3. The material market assessment

The material source for construction are available within the Avera Woreda. There is no available shop or supplier for cement. Therefore for small or medium volume of PPC cement it is available in Chefera town (245 birr per quintal) but for bigger volume (more than 100 quintals) the reference available market is in Woldiya town (220 birr per quintal). The source area for water and sand is Avera River. Two stone source areas are located within the woreda. The road quality to the source area for both sand, water and stone is all weathered and give service in all seasons of the year. The distance from the source for sand and water to GIZ intervention kebele is approximately 17 km and for stone the distance from the first source to the intervention kebele (Hidellu kebele) is approximately 23 km. and the second stone source area was located within the intervention area. The water source is Avera River and it is a seasonal river and it has additional water in Sep-April and afterwards it started to decrease the volume.

According to the contractors and local government officials, currently there weren't any licenced suppliers for the sand and stone materials. It also noted that before going to the material source it requires contacting the Woreda administration and kebele administration for loading the sand and stone materials. After reaching agreement and getting approval, loading

price for 16 m³ sand and for 10 m³ for daily labours is 1000-1100 birr respectively. (See the map below)

Map 6: Awera Woreda material source and reference market for cement and experienced Mason



During the discussion with contractors, the Woreda level Water Office and kebele administration are responsible for water services and decisions regarding the usage of water resource. For instance if the water is collected from the Awera river it is has daily labour cost to fill the water container, however if the water is collected from water tanker that provides service to the communities, then it requires agreement with the Kebele leader or Woreda administration. Also it has some price paid to the kebele to cover the fuel cost for the Pump. (See the table below the prices of sand, stone, cement, water)

Table 31: Material price

	Labour cost in ETB	Unit
Sand	1000-1100	16 m ³
Stone	1000-1100	10 m ³

Cement	220-245	1 quintal
Water	0.15	1 litre

Note: The unit cost for sand and stone was calculated for loading 16m³ and 12m³ respectively.

The price of cement was collected in Chefra and Woldiya town respectively.

8.4. Transportation market assessment

All the KII discussion the nearest market area for trucks are available in Kobo, Woldiya and Alamata towns. The contractors also mentioned that it is advisable to rent a truck from transporters depending on the volume of work. The cost for Daily rent was 3000 birr without fuel before 8 month for loading 16m³ sand and 10m³ of stone.

The team assessed the current market price in Woldiya town from licensed transporters and the price is between 3000 birr without fuel for one Sino-truck containing 16m³ sand and 10m³ of stone on daily basis depending on the period and volume of the work. But to transport cement for one trip from Woldiya to Awera Woreda Hiddelu kebele (intervention area) is 60-70 birr per quintal depending on the volume (60 birr is to transport not less than 100 quintal and 70 birr is also not less than 50 quintal). The daily price rate for 4 m³ of truck is 1900-2000 birr. The price listed in the table below.

Table 32. Transport price

TYPE of transport	Daily rate cost in ETB per m ³	Daily rate cost in ETB per m ³	Daily rate cost in ETB per quintal	Daily rate cost in ETB per 3 m ³
	Sand	Stone	Cement	Water
Sino-truck	3000	3000	40-50	1900-2000

9. Chefra Woreda market assessment

9.1 The general market environment

In Chefra Woreda the main local market area is Chefra (locally called 60ty) located at the highway that connects Semera to Woldiya. Chefra town are characterised as medium market style with some shops using minimal storage facilities and stock. Chefra market is a reference market place for Ewa and Awera Woredas for supplying of all types of household items and also Cement and other building materials for construction. For Chefra market the goods and services supplied mainly from Welidya and Bati towns.

There is public transport available from Semera to Chefra town and also in the use of "Gari" (a cart that is pulled by donkeys) is also widespread used in particular helping to transport goods

such as food items and construction materials such as water, sand and stone from the material source to the Chefra town and nearby kebeles.

9.2. Labour market assessment

During the assessment the informants described there are very few available experienced masons permanently stationed and working in Chefra town. Most of the experienced Masons are coming either from Woldiya or Bati towns when the demand is high because of increasing construction by contractors for the government. Throughout the assessment period the team also observed that there are beginner masons and Masons available in Chefra town for construction of private owned houses. According to all KII the work norm for skilled persons was calculated and set in terms of per day price or the contractors award the experienced mason a contract for fixed type of work. Depending on the season the daily rate started from **300 birr up to 320 birr** on average.

The unskilled labour is available in Chefra town. The work norm for daily labour is calculated as per daily rate for most daily works listed in the table below except for loading and unloading works. (For loading and unloading the cost rate is depending on the type and distance of the items that are loading or unloading. For instance for cement the unloading price was **7-10 birr** per quintal.). According to contractors, starting from September to April on average the daily rate was **150 birr per day** if the work area is not far from their houses. However after April up to July the daily rate was increased up to **170 birr** depending on the construction area.

Table 33. Skilled Labour

	Daily rate
	In ETB
Experienced mason (can construct 2-3 M3/day)	300-320
Mason (can construct 1-2M3/day)	250-280
Beginner mason (can construct 0.5-1 M3/day)	200-220
Foremen	250

Table 34. Unskilled labour price

	Daily rate in ETB	Unit
Site clearance	150-170	m ²
Excavation	150-170	m ³

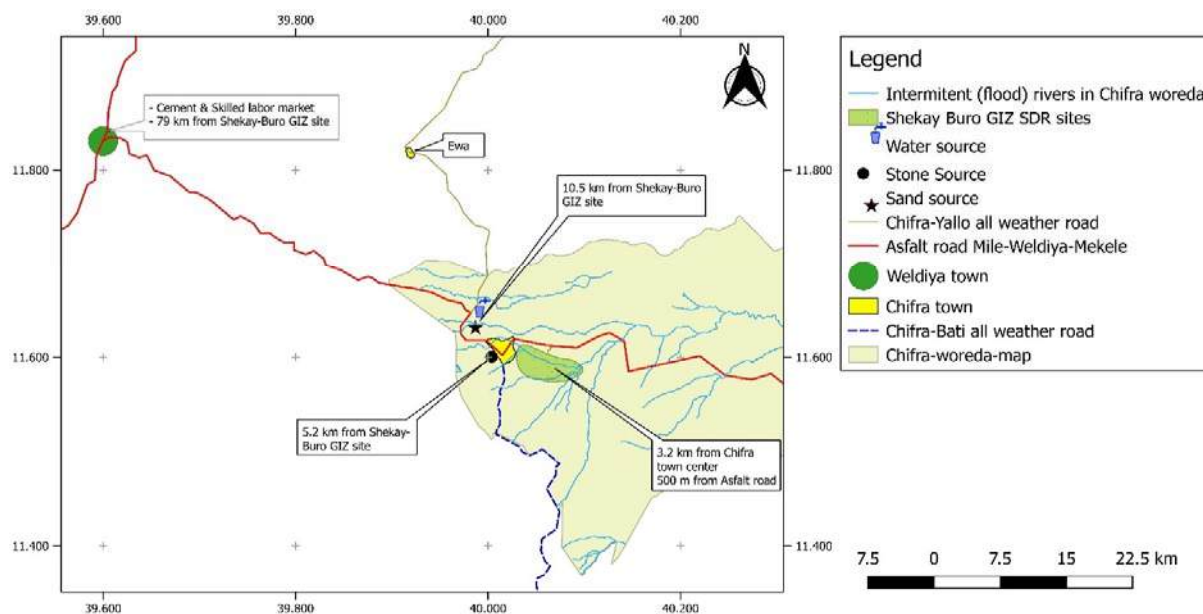
Back fill	150-170	m ³
Loading	7-10 per item	m ³
Unloading	7-10 per item	m ³
Watering of construction	150+20 per watering day	m ³
Site guard	37-40	Day/night

9.3. The material market assessment

The source for sand and stone and water and cement are available in Chfera Woreda. For cement there is a shop and stores some amount of cement for Chefra towns and nearby Woredas. The current price is 245 birr for PPC type of cement. Therefore for bigger volume of quintals the reference available market is in Woldiya approximately 70 km far from Chefra town In Woldyia the PPC type of cement is sold during the study period is 220 birr. The source area for sand and water is 10.5 km and the stone source is 5.2 km far from the intervention kebele Sykabruo. (See the map below)

MAP7. The source area for sand stone water, cement and reference market for experienced Masons

Chifra-Woreda GIZ SDR Intervention area, material source and Reference Market Place



According to the informants interviewed there is no licenced supplier for sand and stone. The Woreda cooperatives office formed a youth cooperative for providing loading service. This youth charged the price for loading the sand and stone are 1000 birr for 16m³ and for loading 12 m³ is 1000 birr respectively.

The team also observed that before loading for the stone and sand from the source area, it needs to contact and reach agreement with the kebele leader or Woreda administrator in detail (volume, time period etc...). The team observed and understands there are some youth cooperatives are organized formally with a licence for providing loading service of stone and sand in the source area. According to the cooperative charged for loading 1100 birr for 16m³ of sand and for loading stone 1000 birr for 12 m³. The source area of water for construction is mainly from Mile River located 7 km far from Chifra town. According to the informants, 0.10 cents payment for fetching Water from the river. The quality of the road is all weather road for sand and water but for stone it is dry weather road that gives service for dry season only. (See the table below the prices of sand, stone, cement, water)

Table35. Material price

	cost in ETB	Unit
Sand	1100	m ³
Stone	1100	m ³
Cement	220-245	1 quintal
Water	0.10	1 litre

Note: The cost for sand and stone was for loading 16m³ and 12m³ respectively.

The price of cement was from Woldiya and Chefra town respectively.

9.4. Transportation market assessment

During the study period there was one transporter stationed in the Woreda for providing water transport service. All the KII interviewed stated that the nearest market area for trucks are available in Woldiya town. The contractors also mentioned that it is advisable to rent a truck from Woldiya town from transporters depending on the volume of work. The cost for monthly rent was 80,000 birr and 85,000 birr before 8 month for loading 16m³ sand and 12m³ of stone.

The team assessed the current market price in Woldiya town from licenced transporters and the price is between 90,000 birr for one Sino-truck containing 16m³ sand and 12m³ of stone on monthly basis depending on the period and volume of the work. But to transport 2 m³ litter of water it charged **500 birr** per one trip from Mile River. To bring a truck for water from Logiya or Woldiya it is 1500 birr for containing 3m³ water.

Table transport price

TYPE of transport	Daily rent in ETB per 16m ³	Daily rent in ETB per 10m ³	Daily rent in ETB	Daily rent in ETB per 3 m ³ -4m ³
	Sand	Stone	Cement	Water
Sino-truck	3000	3000	3000	500-2000

Annex

Annex 1: list of KEY informants participated in the assessment.

Woredas	Number KII interviewed Woreda trade office or finance office	Number KII interviewed Kebele Administration	Number KII interviewed Transport and cement provider(in Woldiya and Semera)	Number KII interviewed Supplier of materials (sand and stone)	Number KII interviewed Construction service provider	Number KII interviewed Skilled labour	Number KII daily labour
Kori	1	1	4	1	2	1	2
Chefera	1	0	4	0	3	1	3
Awra	1	1	4	0	2	0	0
Gulina	1	0	4	2	2	2	2
Yealo	1	1	4	1	2	0	2
Teru	1	1	4	0	1	1	2
Mile	1	0	0	0	2	2	3
Total	8	4	8	4	14	7	14

Annex 2. Participated contractor companies for the assessment

SER NO	CONTRACTOR'S NAME	Construction GRADE
1	<u>Mohamed IBRAHIM GENERAL CONTRACTOR</u>	5
2	<u>SAED GENERAL CONTRACTOR</u>	7
3	<u>Gemal Teha GENERAL CONTRACTOR</u>	5
4	<u>AICHA MOHAMMED GENERAL CONTRACTOR</u>	5
5	<u>OMER GENERAL CONTRACTOR</u>	7
6	<u>IBRAHIM WAAMLE GENERAL CONTRACTOR</u>	8
7	<u>ADEN MOHAMMED IBRAHIM GENERAL CONTRACTOR</u>	5
8	<u>IDRISS MOHAMMED USMAN GENERAL CONTRACTOR</u>	5
9	<u>MOHAMMED AWOL GENERAL CONTRACTOR</u>	7
10	<u>HUSSEIN GENERAL CONTRACTOR</u>	5
11	<u>HUSSEIN NEIBLE GENERAL CONTRACTOR</u>	5
12	<u>KEDIJA OMER GENERAL CONTRACTOR</u>	5
13	<u>MOHAMMED ALI HASSEN</u>	5
14	<u>HUMED IDRISS GENERAL CONTRACTOR</u>	5

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