

Attachment 5 : Environmental Monitoring Form (During Construction)

1. Water Pollution, Soil Erosion, Bottom Sediments and Protected Area

Monitoring Item	Conditions during Reporting Period	Frequency
Conditions of the fences enclosing the major water supply facilities including their buffer spaces for preventing water pollution	Not yet implemented.	Once a month (before completion of the construction)
Implementation of soil erosion control measures at project sites	Access road is under construction.	Once a month
Earthwork during rainy season	Not yet implemented. (The rainy season is from June to August.)	Once a month (rainy season)
Lake water quality near the protected area which may be affected by the soil erosion from the project sites (Turbidity and TSS (Total Suspended Solid))	Not yet implemented. (The rainy season is from June to August.)	Once a year (rainy season)

2. Solid Waste

Monitoring Item	Conditions during Reporting Period	Frequency
Disposal of construction wastes at disposal sites designated by BDCA	They have not been generated yet.	Once a month
Storage of surplus construction soil, construction materials at places where rainwater won't wash away	The proper implementation has been confirmed.	Once a month
Reuse of surplus construction soil and efficient uses of construction materials such as remaining cut pipes	Proper reuse of surplus construction soil has been confirmed.	Once a month

3. Fauna and Flora

Monitoring Item	Conditions during Reporting Period	Frequency
Minimization of logging of mature trees while planting native young trees instead	Not yet implemented.	Once a month

4. Noise / Vibration

Monitoring Item	Conditions during Reporting Period	Frequency
Periods of laying water pipes in residential areas (confirming whether laying pipes during daytime on weekdays as far as possible at site while checking the construction schedule)	Not yet implemented.	Once a week
Use of sound-proof sheet in case that pipe laying during night time and weekends cannot be avoided	Not yet implemented.	Once a week

5. Air Pollution

Monitoring Item	Conditions during Reporting Period	Frequency
Watering to prevent excessive dust during pipe installation in residential areas, etc.	The left-mentioned activities have been confirmed.	Once a week
Whether construction machineries and vehicles discharging exhaust gas are well maintained	The left-mentioned activities have been confirmed.	Once a month

6. Soil Pollution

Monitoring Item	Conditions during Reporting Period	Frequency
Whether construction machineries and vehicles, which may leak fuel and machine oil, are well maintained	Not yet implemented.	Once a month

7. Traffic, Children and Residents

Monitoring Item	Conditions during Reporting Period	Frequency
Whether the installation of pipes across roads is conducted during the time having especially low traffic	Not yet implemented.	Once a week
Ex-ante coordination with the organization managing roads and traffic for smooth pipe installation along roads	Not yet implemented.	Once a month
Allocation of sufficient traffic control personnel at construction sites	Traffic control personnel have been allocated at construction sites.	Once a week
Whether electrically-lighted signboards are placed to avoid traffic accident around the construction sites during night	Not yet implemented.	Once a week
Whether pipe installation sites are enclosed so that children and others won't fall into the ditches and whether refill of the ditches after laying pipes are not delayed	Not yet implemented.	Once a week
Usage status of HDPE pipe which can be laid quickly and is hard to cause water leakage	Not yet implemented.	Every day

8. Land Use

Monitoring Item	Conditions during Reporting Period	Frequency
Management of surplus construction soil around the construction sites	They have been properly maintained.	Once a month
Whether pipe installation under farmlands during rainy season is avoided as far as possible	Not yet implemented.	Twice a month
Whether pipe installation ditches are refilled with original fertile surface soil after laying pipes under farmlands	Not yet implemented.	Twice a month

9. Public Health and Workers

Monitoring Item	Conditions during Reporting Period	Frequency
Support to the construction workers such as education on HIV-AIDS, distribution of condoms and prevention of prostitution	Health education has been provided at safety meetings.	Once a month
Cleanness at camp for construction workers and implementation of on-site prevention measures against water-borne and mosquito-borne diseases	Contractor office has been properly maintained.	Once a month
Accident prevention measures carried out at construction sites	Those safety measures are shared at safety meetings.	Once a month

10. Landscape and Cultural Property

Monitoring Item	Conditions during Reporting Period	Frequency
Construction hours of pipe installation around religious places, tourist sites, etc. (e.g. avoiding pipe installation during the events and service hours of these places)	Not yet implemented.	Once a week
Whether construction machineries, materials, etc. are placed at and around the construction sites in the way not disturbing the surrounding sceneries	In progress.	Once a month

11. Property and Public Facility

Monitoring Item	Conditions during Reporting Period	Frequency
Coordination with the organizations managing utility lines such as underground telephone and electricity cables to avoid damages on their utility lines	Not yet implemented.	Once a month
Ex-ante coordination to minimize the interruption of other utility services when relocation of other utility lines is unavoidable.	Not yet implemented.	Once a month

12. Land Use Right

Monitoring Item	Conditions during Reporting Period	Frequency
See attachment 5 Social (Land acquisition) Monitoring Form	As shown in attachment 5, the land compensation have been paid except No.I,1 Eniy Addis .	Once a month (before the construction starts)

Attachment 5 : Social (Land acquisition) Monitoring Form

No.	Project Affected Persons at Selected Project Sites	Size of Acquired Land (m ²)	Paid Land Compensation (Birr)	Date of Payment	Records of Livelihood Support	Records of complains and their handlings
I	Charchara TW-No.1					
1	[REDACTED]	539	13,481.58			The land compensation amount rejected, negotiation in progress.
2	[REDACTED]	320	8,003.91	2016.6.16		
3	[REDACTED]	416	10,405.08	2016.6.16		
	Sub Total	1,275	31,890.57			
II	Charchara TW-No.2					
1	[REDACTED]	378	9,454.62	2016.6.16		
2	[REDACTED]	378	9,454.62	2016.6.16		
3	[REDACTED]	378	9,454.62	2016.6.16		
4	[REDACTED]	504	12,606.15	2016.6.16		
5	[REDACTED]	504	12,606.15	2016.6.16		
6	[REDACTED]	378	9,454.62	2016.6.16		
7	[REDACTED]	378	9,454.62	2016.6.16		
8	[REDACTED]	378	9,454.62	2016.6.16		
9	[REDACTED]	378	9,454.62	2016.6.16		
10	[REDACTED]	378	9,454.62	2016.6.16		
11	[REDACTED]	378	9,454.62	2016.6.16		
12	[REDACTED]	378	9,454.62	2016.6.16		
13	[REDACTED]	378	9,454.62	2016.6.16		
	Sub Total	5,166	129,213.12			
III	Charchara TW-No.3 & New Pump Station					
1	[REDACTED]	1,075	26,888.13	2016.6.16		
2	[REDACTED]	2,150	53,776.25	2016.6.16		
	Sub Total	3,225	80,664.38			
IV	Asharaf TW-No.2					
1	[REDACTED]	3,611	90,319.09	2016.6.16		
	Sub Total	3,611	90,319.09			
V	Asharaf TW-No.3					
1	[REDACTED]	3,149	78,763.45	2016.6.16		
	Sub Total	3,149	78,763.45			
VI	Diaspora Reservoir Expansion Site					
1	[REDACTED]	473	11,830.78	2016.6.16		
2	[REDACTED]	244	6,102.98	2016.6.16		
3	[REDACTED]	594	14,857.25	2016.6.16		
4	[REDACTED]	239	5,977.92	2016.6.16		
5	[REDACTED]	225	5,627.75	2016.6.16		
6	[REDACTED]	1,065	26,638.00	2016.6.16		
	Sub Total	2,840	71,034.68			
Total	26 Persons	19,266	481,888.29			

Note : * Prefer the standard land compensation (standard compensation based on price of typical crops) to the compensation for eucalyptus trees because they will sell the eucalyptus trees before the implementation of land acquisition.