

Monitoring Form

Construction Stage (including Detailed Design Stage)

1. Response/Actions to Comments and Guidance from Government Authorities and the Public

Number and contents of formal comments made by public	N/A
Number and contents from Government agencies	N/A

2. Pollution

(1) Air Pollution

Item		Measured to be Taken	Frequency
Confirmation of the environmental mitigation measures in construction plan	Confirmed in Execution plan	-	Before commencement of construction activities
Confirmation of the implementation of environmental mitigation measures on construction activities ✓ Spray water in the project site ✓ Routine inspection of construction machinery ✓ Reasonable operation of construction machinery	<ul style="list-style-type: none"> • Confirm sprinkling of water to prevent dust. • Regular maintenance of construction machinery. • Construction machinery is stopped engine when there is no work to be done 	Construction site	Any time during construction stage
Air quality survey	Refer to Criteria of Air Quality Survey below	Construction site	Every 3 months

Criteria of Air Quality Survey

202407

Item	Evaluation Time	Unit	Measured Value (Mean)	Measured Value (Max)	Reference (measured value in Review survey)	WHO Standard	Measurement Point
PM ₁₀	24 hours	µg/m ³	19	48	66.6 - 165.3	45µg/m ³	Project site
PM _{2.5}	24 hours	µg/m ³	17	42	24.8 - 64.8	15µg/m ³	
Carbon Monoxide (CO)	8 hours	µg/m ³		16.9	0.0 - 5.7	10 mg/m ³	
Sulphur dioxide (SO ₂)	24 hours	µg/m ³		< 0.03	16.4 - 430.8	125µg/m ³	
Nitrogen dioxide (NO ₂)	24 hours	µg/m ³		< 0.018	0.0 - 0.41	-	

202410

Item	Evaluation Time	Unit	Measured Value (Mean)	Measured Value (Max)	Reference (measured value in Review survey)	WHO Standard	Measurement Point
PM ₁₀	24 hours	µg/m ³	4	7	66.6 - 165.3	45µg/m ³	Project site
PM _{2.5}	24 hours	µg/m ³	4	8	24.8 - 64.8	15µg/m ³	
Carbon Monoxide (CO)	8 hours	µg/m ³		23.3	0.0 - 5.7	10 mg/m ³	
Sulphur dioxide (SO ₂)	24 hours	µg/m ³		< 0.03	16.4 - 430.8	125µg/m ³	
Nitrogen dioxide (NO ₂)	24 hours	µg/m ³		< 0.018	0.0 - 0.41	-	

202501

Item	Evaluation Time	Unit	Measured Value (Mean)	Measured Value (Max)	Reference (measured value in Review survey)	WHO Standard	Measurement Point
PM ₁₀	24 hours	µg/m ³	6	10	66.6 - 165.3	45µg/m ³	Project site
PM _{2.5}	24 hours	µg/m ³	8	12	24.8 - 64.8	15µg/m ³	
Carbon Monoxide (CO)	8 hours	µg/m ³		18.5	0.0 - 5.7	10 mg/m ³	
Sulphur dioxide (SO ₂)	24 hours	µg/m ³		< 0.03	16.4 - 430.8	125µg/m ³	
Nitrogen dioxide (NO ₂)	24 hours	µg/m ³		< 0.018	0.0 - 0.41	-	

(2) Water Pollution (the Nile)

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the environmental mitigation measures in construction plan (including construction method)	Confirmed in Execution plan	-	Before commencement of construction activities
Confirmation of the implementation of environmental mitigation measures on construction activities ✓ Water quality of the Nile with visual inspection (turbidity) ✓ Reasonable operation of construction machinery	No change in turbidity.	Construction site	Any time during construction stage
Water quality survey	Refer to Criteria of Water Quality Survey below	Construction site	Quarterly

Criteria of Water Quality Survey

202407

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Reference (measured value in review survey)	Referred International Standards*	Measurement Point
pH	-		7.38	-	6.42	5.5 - 9.5	Juba River Port
Temperature	°C		29.9	-	31.6	-	
Odor	-		Unobserved	-	Unobserved	Unobserved	
EC	µS/cm		261		216	Less than 700	
TDS	mg/L		21.7	-	116	Less than 1,500	
DO	mg/L		5.84	-	8.24	-	
Pb	mg/L		0.04	-	Less than 0.01	Less than 0.01	
Oil	mg/L		Under 5.0	-	0.1	Less than 0.5	

*: Republic of Kenya

202410

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Reference (measured value in review survey)	Referred International Standards*	Measurement Point
pH	-		6.92	-	6.42	5.5 - 9.5	Juba River Port
Temperature	°C		29.5	-	31.6	-	
Odor	-		Unobserved	-	Unobserved	Unobserved	
EC	µS/cm		200		216	Less than 700	
TDS	mg/L		20.8	-	116	Less than 1,500	
DO	mg/L		4.33	-	8.24	-	
Pb	mg/L		0.02	-	Less than 0.01	Less than 0.01	
Oil	mg/L		Under 5.0	-	0.1	Less than 0.5	

*: Republic of Kenya

202501

Item	Unit	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Reference (measured value in review survey)	Referred International Standards*	Measurement Point
pH	-		7.56	-	6.42	5.5 - 9.5	Juba River Port
Temperature	°C		27.6	-	31.6	-	
Odor	-		Unobserved	-	Unobserved	Unobserved	
EC	µS/cm		200		216	Less than 700	
TDS	mg/L		22.3	-	116	Less than 1,500	
DO	mg/L		5.32	-	8.24	-	
Pb	mg/L		0.05	-	Less than 0.01	Less than 0.01	
Oil	mg/L		Under 5.0	-	0.1	Less than 0.5	

*: Republic of Kenya

(3) Soil Contamination

Item	Monitoring Results during Report Period	Survey Points	Frequency
Confirmation of the environmental mitigation measures in construction plan	Confirmed in Execution plan	-	Before commencement of construction activities
Confirmation of the implementation of environmental mitigation measures on construction activities ✓ Disposal of used oil ✓ Routine inspection of construction machinery	• Regular maintenance of construction machinery.	Construction site	Any time during construction stage

(4) Waste

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the environmental mitigation measures in construction plan	Confirmed in Execution plan	-	Before commencement of construction activities
Confirmation of the implementation of environmental mitigation measures on construction activities ✓ Reuse of construction wastes ✓ Dumping of construction wastes	Visual Check	Construction site, Dumping site of wastes	Any time during construction stage

(5) Noise (Construction Noise)

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the environmental mitigation measures in construction plan (including construction method, type of construction machinery)	Confirmed in Execution plan	-	Before commencement of construction activities
Confirmation of the implementation of environmental mitigation measures on construction activities ✓ Routine inspection of construction machinery ✓ Reasonable operation of construction machinery ✓ Operation hours of construction machinery	• Regular maintenance of construction machinery. • Construction machinery is stopped engine when there is no work to be done	Construction site	Any time during construction stage
Noise & vibration survey	Refer to Criteria of Noise & Vibration Survey below	Construction site	Quarterly

Criteria of Noise Survey

202407

Sampling Point	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Reference (measured value in review survey) L _{Aeq}	WHO Standard
Entrance Gate	46.8	66.7	-	58.6	70.0
North Edge	41.8	63.5	-	60.0	70.0
South Edge	48.2	72	-	59.7	70.0

202410

Sampling Point	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Reference (measured value in review survey) L _{Aeq}	WHO Standard
Entrance Gate	47.3	61.0	-	58.6	70.0
North Edge	42.0	63.0	-	60.0	70.0
South Edge	41.4	57.0	-	59.7	70.0

202501

Sampling Point	Measured Value (Mean)	Measured Value (Max)	Country's Standards	Reference (measured value in review survey) L _{Aeq}	WHO Standard
Entrance Gate	48.7	68.4	-	58.6	70.0
North Edge	45.0	62.7	-	60.0	70.0
South Edge	40.8	61.4	-	59.7	70.0

3. Natural Environment**(1) Ecosystem**

Item	Monitoring Results during Report Period	Survey Points	Frequency
Confirmation of the plan of cutting tree	Confirmed of Cutting tree list.	-	Before commencement of construction activities
Confirmation of the progress of cutting tree	Done	Construction site	Any time during construction stage

4. Social Environment**(1) Gender**

Item	Monitoring Results during Report Period	Survey Points	Frequency
Confirmation of the construction plan (Woman's Toilet)	Setting on site.	-	Before commencement of construction activities

(2) HIV/AIDS and other STDs

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the construction plan (education and awareness)	Confirmed in HSEM	-	Before commencement of construction activities
Confirmation of the records of education and awareness activities in terms of protection against HIV/AIDS	Health Status Check	Construction site	Any time during construction stage
Confirmation of the records of communication with local medial personals	Health Status Check	-	Any time during construction stage

(3) Working Environment (including Occupational Safety)

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the safety plan in the construction plan	Confirmed in Execution plan	-	Before commencement of construction work
Confirmation of the records of the safety plan	Confirmed in daily safety and environment instruction sheet.	Construction site	Any time during construction stage
Confirmation of the use of protective gears	Confirmed use.	Construction site	Any time during construction stage

(4) Accident

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the safety plan in the construction plan	Confirmed in Execution plan	-	Before commencement of construction work
Confirmation of the records of the safety plan	Confirmed in daily safety and environment instruction sheet.	Construction site	Any time during construction stage
Confirmation of the details of accident and its preventive measures	No accident.	Construction site	

5. Others**(1) Trans-boundary impacts or climate change**

Item	Monitoring Results during Report Period	Measured to be Taken	Frequency
Confirmation of the implementation of mitigation measures on construction activities <ul style="list-style-type: none"> ✓ Routine inspection of construction machinery ✓ Reasonable operation of construction machinery 	• Regular maintenance of construction machinery.	Construction site	Any time during construction stage

(2) Grievance on Environmental and Social Matters

Number of Grievance	Details of Grievance	Handling and Outcomes
	No complaints	