

Environmental Monitoring Form (December 2025)

Prepared in January 2026

(Note: The format was revised on 23/April/2019 by the “Technical Note” between MoA and The Consultant, witnessed by JICA)

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

Monitoring Item	Monitoring Results during Report Period
No. and contents of formal comments made by the public	None
No. and contents of responses from Gov. authorities	None

2. Pollution

Air Quality

Item	Unit	Measured Value	Project Standard	Reference Standard	Measurement Point	Frequency
Dust (PM10) (instrument)	µg/m ³	1) 14 2) 19 3) 24 4) 39	100 ^{*1}	50 ^{*2}	Near the construction site facing residential area *: Refer to note	When heavy machine operating *: Refer to note
Visual inspection (qualitative)	inspection	Monitoring result - Water Bowering to suppress dust at regular intervals was operated. - Emission reduction measures were taken continuously (prevention of vehicle idling, timely equipment and vehicle maintenance, and awareness creation).		Where heavy machine operating		

*1: Ugandan air quality standards for ambient air.

*2: WHO's guidelines value ambient (outdoor) air quality and health.

Note 1: Measurement Points

1) Atari Modern Progressive P/S

2) Intake

3) SIKWA PRIMARY SCHOOL AND SIKWA HEALTH CENTER

4) St. Jude P/S

Note: 2: Monitoring frequency was proposed as “Monthly” at the major points including the near residential area regularly, by the Contractor in October 2024. The Consultant accepted.

Water Quality

Item	Unit	Measured Value	Baseline Result	Project Standard	Measurement Point	Frequency
Quantitative Analysis						
pH	-	1) 7.4 2) 7.8	6.88 ^{*1}	6.5-8.5 ^{*2}	2 points: 1) Upstream of headwork to be constructed 2) After drainage canal to be constructed	Monthly (except TN & TP), Biannually (TN & TP)
DO	mg/L	1) 5.9 2) 5.9	4.5 ^{*1}	above 4.5 ^{*1}		
BOD	mg/L	1) >0.05 2) >0.05	17.5 ^{*1}	17.5 ^{*1}		
TN	mg/L	1) - 2) -	11.3 ^{*1}	11.3 ^{*1}		
TP	mg/L	1) - 2) -	1.0 ^{*1}	1.0 ^{*1}		
Qualitative Analysis						
Item		Monitoring result		-		
Turbidity	-	1) Turbid 2) Turbid		-		
Oil	-	1) Not seen 2) Not seen		-		

*1: Maximum values obtained by baseline survey.

*2: Japan's environmental standards for type-C river water (3rd class for fishery and 1st for industrial water).

Note 1: Measurement Points

1) Upstream of headwork to be constructed

2) After drainage canal to be constructed

Note:2: The monitoring program of TN and TP in 2025 is in March and September.

Soil Contamination

Monitoring Item	Monitoring Results during Report Period	Reference Standard	Measurement Point	Frequency
Extent of oil in soils	None	Visual	Model sites of land re-organization (Bulambuli)	Monthly
pH	6.8	-		
EC	160	<1000 $\mu\text{S}/\text{cm}^{-1}$		

*1National Environment (Minimum Standards for Management of Soil Quality) Regulations, 2001, First Schedule, Part 2; Soil quality parameters and classes for irrigated agriculture.

Waste

Monitoring Item	Measured Value	Measurement Point	Note	Frequency
Organic waste (kgs)	20	Site offices	Collected by licensed waste handler	Monthly
Volume of soil (m^3)	8,0000	Stockpile site	Approved disposal area in Buwechalo village	
Volume of construction garbage (m^3)	0	n/a	n/a	

Noise

Item	Unit	Measured Value	Project Standard	Reference Standard	Measurement Point	Frequency
L_{Aeq}	dB(A)	1) 56 2) 51.3 3) 53.2 4) 64.2	85 ^{*1}	50 ^{*2}	Near the construction site facing residential area *: Refer to note	When heavy machine operating *: Refer to note

*1: Japan’s noise regulation for construction works.

*2: WHO’s guidelines value (outdoor) for residential area.

Note: Measurement Points

- 1) Atari Modern Progressive P/S
- 2) Sikwo P/S and Health Centre
- 3) Intake
- 4) St. Jude P/S

Note: 2: Monitoring frequency was proposed as “Monthly” at the major points including the near residential area regularly, by the Contractor in October 2024. The Consultant accepted.

3. Natural Environment

Fauna, Flora & Biodiversity

(1) Birds

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
Endangered Species:			
Gray-crowned Crane (<i>Balearica regulorum</i>)	Population:0 Location: Scheme	Method: Line census method Survey location: 4 lines (Refer to Figure 1. “Map of the biodiversity monitoring location” shown in the end of this form)	Biannually (January & July) *: Refer to note
Pallid Harrier (<i>Circus macrourus</i>)	Population:0 Location: Scheme		
Fox’s Weaver (<i>Ploceus spekeoides</i>)	Population:0 Location: Scheme		
Shoebill (<i>Balaeniceps rex</i>)	Population:0 Location: Scheme		
Other Species: Location - Scheme			
Black-Chested Snake Eagle (<i>Circaetus pectoralis</i>)	Population:4 Location: Scheme		
Black-Shouldered Kite (<i>Elanus caeruleus</i>)	Population:3 Location: Scheme		
Long-crested Eagle (<i>Lophaetus occipitalis</i>)	Population:2 Location: Scheme		
Pied Kingfisher (<i>Ceryle rudis</i>)	Population:4 Location: Scheme		
Giant Kingfisher (<i>Megaceryle maxima</i>)	Population:1 Location: Scheme		

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
Pygmy Kingfisher (<i>Ispidina picta</i> African)	Population:15 Location: Scheme		
Little Swift (<i>Apus affinis</i>)	Population:15 Location: Scheme		
Alpine Swift (<i>Apus melba</i>)	Population:18 Location: Scheme		
Black-Headed Heron (<i>Ardea melanocephala</i>)	Population:9 Location: Scheme		
Purple Heron (<i>Ardea purpurea</i>)	Population:3 Location: Scheme		
Wattled Lapwing (<i>Vanellus senegallus</i>) African	Population:2 Location: Scheme		
African Openbill Stork (<i>Anastomus lamelligerus</i>)	Population:2 Location: Scheme		
Grey-backed Camaroptera (<i>Camaroptera brachyura</i>)	Population:1 Location: Scheme		
Singing Cisticola (<i>Cisticola cantans</i>)	Population:1 Location: Scheme		
Tawny-flanked Prinia (<i>Prinia subflava</i>)	Population:4 Location: Scheme		
Speckled Pigeon (<i>Columba guinea</i>)	Population:2 Location: Scheme		
Namaqua Dove (<i>Oena capensis</i>)	Population:2 Location: Scheme		
Red-eyed Dove (<i>Streptopelia semitorquata</i>)	Population:3 Location: Scheme		
Laughing Dove (<i>Streptopelia senegalensis</i>)	Population:9 Location: Scheme		
Blue-Spotted Wood Dove (<i>Turtur afer</i>)	Population:3 Location: Scheme		
Pied Crow (<i>Corvus albus</i>)	Population:1 Location: Scheme		
Piapiac (<i>Ptilostomus afer</i>)	Population:1 Location: Scheme		
Red-billed Firefinch (<i>Lagonosticta senegala</i>)	Population:7 Location: Scheme		
Black-and-white Mannikin (<i>Spermestes bicolor</i>)	Population:46 Location: Scheme		
Bronze Mannikin (<i>Spermestes cucullata</i>)	Population:3 Location: Scheme		
Red-cheeked Cordon-bleu (<i>Uraeginthus bengalus</i>)	Population:1 Location: Scheme		
African Firefinch (<i>Lagonosticta rubricate</i>)	Population:8 Location: Scheme		
Barn Swallow (<i>Hirundo rustica</i>)	Population:16 Location: Scheme		
Plain Martin (<i>Riparia paludicola</i>)	Population:8 Location: Scheme		
Jacana (<i>Actophilornis africana</i> African)	Population:2 Location: Scheme		
Grey-backed Fiscal (<i>Lanius excubitoroides</i>)	Population:7 Location: Scheme		
Black-Headed Gonolek (<i>Laniarius erythrogaster</i>)	Population:2 Location: Scheme		
White-throated Bee-eater (<i>Merops albicollis</i>)	Population:2 Location: Scheme		
African Pied Wagtail (<i>Motacilla aguimp</i>)	Population:2 Location: Scheme		
Yellow Wagtail (<i>Motacilla flava</i>)	Population:6 Location: Scheme		
Silverbird (<i>Empidonis semipartitus</i>)	Population:1 Location: Scheme		
Sooty Chat (<i>Myrmecocichla nigra</i>)	Population:1		

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
	Location: Scheme		
Marico Sunbird (<i>Cinnyris mariquensis</i>)	Population:1 Location: Scheme		
Rufous Sparrow (<i>Passer cordofanicus</i>)	Population:1 Location: Scheme		
Black-headed Weaver (<i>Ploceus cucullatus</i>)	Population:29 Location: Scheme		
Red-Billed Quelea(<i>Quelea quelea</i>)	Population:Unidentified Location: Scheme		
Common Bulbul (<i>Pycnonotus barbatus</i>)	Population:3 Location: Scheme		
Striped Crake (<i>Aenigmatolimnas marginalis</i>)	Population:3 Location: Scheme		
White-winged Tern (<i>Chlidonias leucopterus</i>)	Population:2 Location: Scheme		
Hadada Ibis (<i>Bostrychia hagedash</i>)	Population:14 Location: Scheme		

Note: Monitoring frequency was proposed as “Quarterly” by the Contractor in October 2024. The Consultant accepted. The monitoring program of 2025 is in March, June, September and December.

(2) Others

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
Herptiles:			
Striped Skink <i>Trachylepis striata</i>	Population:3 Location: Scheme		
Four-lined Forest Gecko <i>Cnemaspis quattuorseriatus</i>	Population:1 Location: Scheme		
Olive Marsh Snake <i>Natriciteres olivacea</i>	Population:1 Location: Scheme		
Groove-crowned Bullfrog <i>Hoplobatrachus occipitalis</i> Eastern	Population:8 Location: Scheme		
Dwarf Puddle Frog <i>Phrynobatrachus mababiensis</i>	Population:4 Location: Scheme		
Natal Puddle Frog <i>Phrynobatrachus natalensis</i>	Population:61 Location: Scheme	Method: Visual encounter method, Field sign method, etc	
Mascarene Rocket Frog <i>Ptychadena mascareniensis</i>	Population:15 Location: Scheme	Survey location: 4 lines	
Anchieta’s Rocket Frog <i>Ptychadena anchietae</i>	Population:5 Location: Scheme	(Refer to Figure 1. “Map of the biodiversity monitoring location” shown in the end of this form)	Biannually (January & July)
Grassland Rocket Frog <i>Ptychadena porosissima</i>	Population:3 Location: Scheme		
Mammals:			
Marsh Mongoose <i>Atilax paludinosus</i>	Population: Unidentified Location: Scheme		
African grass rat <i>Arvicanthis niloticus</i>	Population: 1 Location: Scheme		
Black Rat <i>Rattus rattus</i>	Population: 1 Location: Scheme		
<i>Saccostomus mearnsi</i> East African pouched mouse	Population: 2 Location: Scheme		
Fishes:			
Mango Tilapia (<i>Sarotherodon Galilaeus</i>)	Population:94 Location: Scheme	Method: Fishing method by net, Electro fisher method, etc	
East Africa Red Finned Barb (<i>Enteromius apleurogramma</i>)	Population:27 Location: Scheme	Survey location: 1 spot	
LongTail Spiny Eel (<i>Mastacembelus frenatus</i>)	Population:1 Location: Scheme	(Refer to Figure 1. “Map of the biodiversity monitoring location” shown in the end of this form)	

*: Refer to note

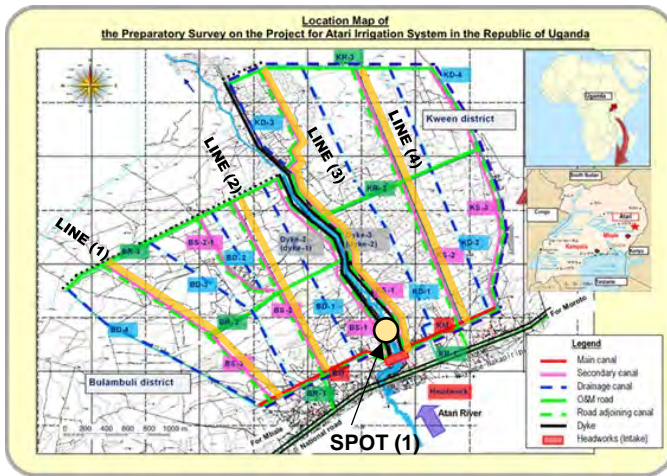
Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Frequency
Hippopotamyrus grahami (<i>Marcusenius grahami</i>)	Population:1 Location: Scheme		
Victoria Omena (<i>Gnathonemus victoriae</i>)	Population:3 Location: Scheme		

Note: Monitoring frequency was proposed as “Quarterly” by the Contractor in October 2024. The Consultant accepted. The monitoring program of 2025 is in March, June, September and December.

Hydrological Situation

Monitoring Item	Monitoring Results during Report Period	Measures to be Taken	Measurement Point	Frequency
Volume of river flow (m ³ /s)	15.2	Water level gauge	At upstream of headwork to be constructed	Quarterly

Note: The monitoring program for 2025 is in March, June, September and December.



Category	Survey Location
Birds	LINE (1) - (4)
Herptiles	LINE (1) - (4)
Mammals	LINE (1) - (4)
Fishes	SPOT (1)

Social Monitoring Form (4th Quarter, 2025)

1. Monitoring items for RAP activity

Monitoring frequency: Quarterly
Report period: October-December 2025
Reporting date: 13th January 2025

Summary of Progress:

- **Compensation progress**

- 1) PAPs captured by Original valuation report and Supplementary-1 valuation report: **99%**
(Refer to Item VI, [During Construction Phase], 1) For PAPs captured by original valuation and supplementary-1 valuation report)
 - 2) PAPs captured by Supplementary-2 valuation report: **100%**
(Refer to Item VI, [During Construction Phase], 2) For PAPs captured by supplementary-2 valuation)
- (Note: Supplementary valuation report-1 and Supplementary valuation report-2 were supplements to the Original valuation report.)

- **Construction works**

Construction is being carried out within the area where compensation has been completed.

- **Current issue**

There is one plot of land for which compensation is pending due to a caveat arising from a registration dispute among residents, and the rightful recipient of the compensation has not yet been determined. **(Caveat case)**

I	Monitoring Item; Public Meetings (regardless of official or non-official) Monitoring Frequency; Quarterly
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Monitoring date: 31st December 2025

Information updated: No updating since the previous monitoring period

II	Monitoring Item; Seminars relevant to the Project Monitoring Frequency; Quarterly
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This monitoring items are described in “2. Monitoring items for social aspects of construction works and others”.

III	Monitoring Item; Water Users’ Association (WUA) Member List Monitoring Frequency; Quarterly
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This monitoring items are described in “2. Monitoring items for social aspects of construction works and others”.

IV	Monitoring Item; Monitoring Frequency;	Complaints relevant to the Project Quarterly
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1) Complaint List received by Contractor related to RAP compensation
Monitoring date: 31st December 2025
Information updated: No updating from previous monitoring period

2) Complaint List received by Contractor related to construction works

This monitoring items are described in "2. Monitoring items for social aspects of construction works and others".

V	Monitoring Item; Monitoring Frequency;	Progress of RAP Activities Quarterly
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Monitoring date: 31st December 2025
Information updated: No updating since the previous monitoring period

VI	Monitoring Item; Monitoring Frequency;	Progress of Compensation Payment, Land Acquisition and Resettlement Quarterly
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Monitoring date: 31st December 2025
Information updated: No updating since the previous monitoring period

VII	Monitoring Item; Monitoring Frequency;	Actual Amount paid and timeliness of Compensation Payment Quarterly
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Monitoring date: 31st December 2025
Information updated: No updating since the previous monitoring period

VIII	Monitoring Item; Monitoring Frequency;	Economic Situation Annually (Simple Random Sampling)
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Monitoring date: 31st December 2025
Information updated: Updated since the previous monitoring period.

(in 2025)

No.	RAP ID No. ²	Name of HH Head ²	Sex of HH Head (✓)		Main Income Source of HH	Amount of Annual Income (UGX)	Amount of Annual Expenditure (UGX)
			Male	Female			
1			✓		Farming	12,000,000	700,000
2			✓		Farming	10,000,000	9,000,000
3			✓		Farming	12,000,000	7,000,000
4			✓		Farming	17,000,000	10,000,000
5			✓		Farming	9,000,000	9,000,000
6			✓		Farming	6,000,000	6,000,000
7			✓		Farming	4,000,000	2,000,000
8			✓		Farming	4,500,000	3,000,000

No.	RAP ID No. ^{*2}	Name of HH Head ^{*2}	Sex of HH Head (✓)		Main Income Source of HH	Amount of Annual Income (UGX)	Amount of Annual Expenditure (UGX)
			Male	Female			
9				✓	Farming	6,000,000	3,000,000
10			✓		Farming	3,300,000	2,500,000
11			✓		Farming	9,000,000	8,000,000
12			✓		Farming	6,000,000	4,000,000
13			✓		Farming	5,000,000	3,000,000
14			✓		Farming	11,000,000	8,000,000

*1: One time before compensation payment and one time per year after compensation payment.

*2: "RAP ID No." and "Name" shall be hidden by black at the information disclosure.

IX	Monitoring Item;	Household Members
	Monitoring Frequency	Annually (Simple Random Sampling)

Monitoring date: 31st December 2025

Information updated: No updating since the previous monitoring period

2. Monitoring items for social aspects of construction works and others

Monitoring frequency: Quarterly or monthly depending on monitoring items

Report period: October-December 2025

Reporting date: 13th January 2025

II	Monitoring Item; Monitoring Frequency;	Seminars relevant to the Project Quarterly
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Monitoring date: 31st December 2025

Information updated: No updating since the previous monitoring period

III	Monitoring Item; Monitoring Frequency;	Water Users' Association (WUA) Member List Quarterly
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Monitoring date: 31st December 2025

Information updated: No updating since the previous monitoring period

IV	Monitoring Item; Monitoring Frequency;	Complaints relevant to the Project Quarterly
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Monitoring date: 31st December 2025

Information updated: Updated since the previous monitoring period

Complaint List received by Contractor related to construction works during reporting period

No.	Date	Subject/ Complaint	Name	Area	Status
1	15/11/2025	Pouring concrete in their garden		Bulambuli	Concrete was removed. (CLOSED)
2	5/12/2025	Cars seen parking in their garden		Bulambuli	Drivers were advised to park in within the project area. (CLOSED)

X	Monitoring Item; Monitoring Frequency;	Involvement of Community People in Project Construction Quarterly (During Construction)
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Monitoring date: 31st December 2025

Information updated: Updated since the previous monitoring period

(December 2025)

Item	Male	Female	Total
Number of people employed in the Project Construction	343	78	421
Number of community people employed in the Project Construction	146	63	209

XI	Monitoring Item; Monitoring Frequency;	Hazard and Disturbance Monthly (During Construction)
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Monitoring date: 31st December 2025

Information updated: Updated since the previous monitoring period

Item	Unit	Numbers			Accumulative (form start project)
		2025			
		Oct	Nov	Dec	
No. of Households Affected by hazards and Disturbance from Construction	HH(s)	0	0	2	11
No. of Patients among construction workers	Person(s)	0	0	0	0
No. of accident relevant to the Project Construction	Accident(s)	0	0	1	3
Children labor during Project Construction	Person(s)	0	0	0	0

Item	Numbers				Accumulative (form start project)
	Unit	2025			
		Oct	Nov	Dec	
Crimes by construction workers including sexual harassment	Crime(s)	0	0	0	0

(No. of Households Affected by hazards and Disturbance from Construction) (During reporting period)

No.	Date	Details	Solution	Status
1	5/12/2025	██████████ claimed workers along BD1 were using her sunflower garden as a toilet	Contractor compensated	Closed
2	19/12/2025	██████████ complained of a heap of sand on his Sunflower garden	Contractor removed it immediately	Closed

(No. of accident relevant to the Project Construction) (During reporting period)

No.	Date	Details	Solution	Status
1	8/12/2025	In the Atari area of the Mbale-Moroto national highway, a collision occurred between a forklift (driven by a operator employed by the contractor) and a motorcycle taxi (motorcycle driver and one passenger). The accident occurred on a straight section of road with good visibility and two lanes, one lane on each side (5.5m wide).	A meeting was held with the families of both injuries at the local police station (on December 10th). Other participants included officers from the police station's traffic division, the district chief, and the owner of the affected motorcycle. Both injuries were released from hospital on December 10th and received treatment at home and as outpatients. The contractor filed claims with the insurance company for compensation for the injured victims.	Closed

XII	Monitoring Item;	Extent of damage to existing infrastructures
	Monitoring Frequency;	Monthly (During Construction)

Monitoring date: 31st December 2025

Information updated: Updated since the previous monitoring period

(October 2025)

No.	Date	Venue	Details of Contents	Owners of existing infrastructures	Solution
			None		

(November 2025)

No.	Date	Venue	Details of Contents	Owners of existing infrastructures	Solution
			None		

(December 2025)

No.	Date	Venue	Details of Contents	Owners of existing infrastructures	Solution
			Same as No.1 and 2 of "No. of Households Affected by hazards and Disturbance from Construction"		

XIII	Monitoring Item;	Case of conflict between construction workers and community members
	Monitoring Frequency;	Monthly (During Construction)

Monitoring date: 31st December 2025

Information updated: Updated since the previous monitoring period

(October 2025)

No.	Date	Venue	Details of Contents	Solution
			None	

(November 2025)

No.	Date	Venue	Details of Contents	Solution
			None	

(December 2025)

No.	Date	Venue	Details of Contents	Solution
			None	

End