June 2025 updated

E-1: Monitoring of Noise and Vibration

1. Expected potential impact: During construction phase, transportation of heavy equipment would cause air pollution, noise and vibration. Transportation of construction vehicles and transportation/operation of heavy equipment, such as dump truck, excavator, bulldozer, roller compactor and watering lorry, would exhaust emission gasses including nitrogen dioxide (NO_2) and suspended particular matter (SPM). And also, such heavy equipment would cause noise and vibration.
2. Monitoring method
   (1) Monitoring frequency: Monthly basis
   (2) Location of monitoring: The nearest village were construction site.
   (3) Recording method: Record every hour for 8 hours during the maximum construction period (Daytime from 06:00 – 18:00).
   (4) Evaluation criteria:
   Average vibration L_{10} shall be lower than dB in the specified area.
   Average noise dB (A) shall be lower than dB (A) in the specified area.

Area	Period of time		
	6 a.m. – 6 p.m.	6 p.m. – 10 p.m.	10 p.m. – 6 a.m.
Quite areas, hospital, libraries, schools, kindergartens	45	40	35
Residential areas, hotels, administration officers, houses	60	50	45
Commercial and service area and mix	70	65	50
Small industrial factories, intermingling in residential areas	75	70	50

Source: Sub-decree on Air and Noise Pollution Control

3. Mitigation measures
   (i) educate construction workers on minimizing idling of construction machinery;
   (ii) restricted construction time, e.g. during daytime only;
   (iii) hold stakeholder meetings to build consensus about the construction time.

Month 01:	June-July 2023:	No construction activity
Month 02:	August 2023:	No construction activity
Month 03:	September 2023:	No construction activity
Month 04:	October 2023:	No construction activity

Date	Location	Standard value	Type of Work	Noise-1 Leq dB (A)	Noise-2 Lmin dB (A)	Noise-3 Lmax dB (A)	Vib-1 L10 dB
1. Roleang Chrey sub-project							
17 Nov. 2023	South Main Canal Ch. 1+500	Commercial area Max. dB: 70 dB	Clearing work along the canal	63 (Good)	61 (Good)	63 (Good)	30 (Good)
29 Dec. 2023	South Main Canal Ch. 2+400	Residential area Max. dB: 60 dB	Excavation and transportation of unsuitable material	57 (Good)	54 (Good)	66 (NG)	34 (Good)
29 Jan. 2024	South Main Canal Ch. 2+400	Residential area Max. dB: 60 dB	Excavation of unsuitable material, backfilling cofferdam	55 (Good)	53 (Good)	59 (Good)	32 (Good)
28 Feb. 2024	South Main Canal Ch. 0+300	Commercial area Max. dB: 70 dB	Excavation of unsuitable material, pumping water	53 (Good)	49 (Good)	57 (Good)	31 (Good)
29 Mar. 2024	Roleang Chrey headworks	Small industrial factories area Max. dB: 75 dB	Reinforcement of existing piers of headworks	62 (Good)	58 (Good)	70 (Good)	31 (Good)
26 Apr. 2024	SMC Ch. 1+500 (06:00 to 18:00)	Commercial area Max. dB: 70 dB	Excavation and transportation of unsuitable material	61 (Good)	56 (Good)	66 (Good)	33 (Good)
29 May 2024	SMC Ch. 1+500 (06:00 to 18:00)	Commercial area Max. dB: 70 dB	Excavation and transportation of unsuitable material	56 (Good)	55 (Good)	63 (Good)	31 (Good)
27 Jun. 2024	SMC Ch. 1+500 (08:00 to 11:00) (13:00 to 17:00)	Near Vat Krouch Intake Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	60 (Good)	56 (Good)	63 (Good)	31 (Good)
23 Jul. 2024	SMC Ch. 1+500 (08:00 to 11:00) (13:00 to 17:00)	Near Vat Krouch Intake Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	63 (Good)	60 (Good)	66 (Good)	30 (Good)
30 Aug. 2024	SMC Ch. 1+500 (08:00 to 11:00) (13:00 to 17:00)	Near Vat Krouch Intake Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	61 (Good)	58 (Good)	65 (Good)	29 (Good)
30 Sep. 2024	SMC Ch. 1+500 (08:00 to 11:00) (13:00 to 17:00)	Near Vat Krouch Intake Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	59 (Good)	56 (Good)	62 (Good)	29 (Good)
28 Oct. 2024	SMC Ch. 1+500 (08:00 to 11:00) (13:00 to 17:00)	Near Vat Krouch Intake Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	63 (Good)	60 (Good)	66 (Good)	29 (Good)
26 Nov. 2024	SMC Ch. 1+500 (08:00 to 11:00) (13:00 to 17:00)	Near Vat Krouch Intake Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	60 (Good)	57 (Good)	63 (Good)	29 (Good)
30 Dec. 2024	Headworks upstream (08:00 to 11:00) (13:00 to 17:00)	Headworks Commercial area Max. dB: 70 dB	Headwork modification, Earthwork	64 (Good)	60 (Good)	67 (Good)	30 (Good)
30 Jan. 2025	Headworks (08:00 to 11:00) (13:00 to 17:00)	Headworks Next to residential area Max. dB: 60 dB	Headwork modification, Earthwork	60	58	65	35
27 Feb. 2025	Headworks (08:00 to 11:00) (13:00 to 17:00)	Headworks (next to residential area) Max. dB: 60 dB	Headwork modification, Earthwork	62	55	66	30

Date	Location	Standard value	Type of Work	Noise-1 Leq dB (A)	Noise-2 Lmin dB (A)	Noise-3 Lmax dB (A)	Vib-1 L10 dB
28 Mar. 2025	Phum Thmey (08:00 to 11:00) (13:00 to 17:00)	Pump Station Residential area Max. dB: 60 dB	Earthwork	58	53	60	31
29 Apr. 2025	Headworks (08:00 to 11:00) (13:00 to 17:00)	Headworks Next to residential area Max. dB: 60 dB	Structure work and earthwork	60	59	62	29
30 May 2025	Headworks (08:00 to 11:00) (13:00 to 17:00)	Headworks Next to residential area Max. dB: 60 dB	Structure work and earthwork	60	58	62	28
27 Jun. 2025	Phum Thmey (08:00 to 11:00) (13:00 to 17:00)	Pump Station Residential area Max. dB: 60 dB	Structure work and earthwork	62	60	64	31
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
2. Kandal Stung-Bati sub-project							
16 Nov. 2023	Stung Touch River Ch. 0+200	Residential area Max. dB: 60 dB	Site preparation work, and installation of pump	59 (Good)	56 (Good)	64 (NG)	32 (Good)
16 Dec. 2023	Stung Touch River Ch. 1+200	Residential area Max. dB: 60 dB	Improvement of waterway	53 (Good)	50 (Good)	56 (Good)	35 (Good)
22 Jan. 2024	Stung Touch River Ch. 1+200	Residential area Max. dB: 60 dB	Excavation common unsuitable material	57 (Good)	50 (Good)	65 (NG)	35 (Good)
16 Feb. 2024	Stung Touch River Ch. 1+200	Residential area Max. dB: 60 dB	Excavation of common unsuitable material	59 (Good)	56 (Good)	62 (NG)	33 (Good)
25 Mar. 2024	Stung Touch River Ch. 1+800	Residential area Max. dB: 60 dB	Excavation of common, and unsuitable material	62 (NG)	57 (Good)	68 (NG)	38 (Good)
25 Apr. 2024	Kampong Daungkor spillway	Commercial area Max. dB: 70 dB	Driving PHC piles	64 (Good)	51 (Good)	71 (NG)	52 (Good)
25 May 2024	Stung Touch River, New weir	Residential area Max. dB: 60 dB	Driving PHC piles	64 (NG)	59 (Good)	69 (NG)	52 (Good)
28 Jun. 2024	KC-4 Canal (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structural work	61 (Good)	51 (Good)	71 (NG)	37 (Good)
26 Jul. 2024	Intake KC-4 (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structural work	68 (Good)	63 (Good)	73 (NG)	58 (Good)

Date	Location	Standard value	Type of Work	Noise-1 Leq dB (A)	Noise-2 Lmin dB (A)	Noise-3 Lmax dB (A)	Vib-1 L10 dB
26 Aug. 2024	Stung Touch River (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structural work	63 (Good)	51 (Good)	74 (NG)	33 (Good)
30 Sep. 2024	Intake KC-4 (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structural work	56 (Good)	51 (Good)	60 (Good)	31 (Good)
28 Oct. 2024	Site office Workshop (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	66 (Good)	63 (Good)	69 (Good)	31 (Good)
22 Nov. 2024	KC-4 Canal (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	62 (Good)	59 (Good)	66 (Good)	33 (Good)
31 Dec. 2024	Kampong Daungkor Spillway (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	64 (Good)	60 (Good)	67 (Good)	38 (Good)
31 Jan. 2025	Site Office Workshop (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	58	53	62	30
28 Feb. 2025	KC-4 canal (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	66	61	71	30
31 Mar. 2025	Kampong Daungkor Spillway (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	69	66	71	35
29 Apr. 2025	Kampong Daungkor Spillway (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	60	58	62	30
28 May 2025	New Weir (08:00 to 11:00) (13:00 to 17:00)	Residential area Max. dB: 60 dB	Earthwork, Structure work	61	59	62	33
30 Jun. 2025	RC pile fabrication yard (08:00 to 11:00) (13:00 to 17:00)	Commercial area Max. dB: 70 dB	Earthwork, Structure work	61	59	63	33
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						
	(08:00 to 11:00) (13:00 to 17:00)						

E-2: Monitoring of Water Quality

1. Expected potential impact:

Construction phase

Muddy water from construction site and soil split from construction machinery would cause water pollution of the river and canals. In addition, alkalified water caused by the concrete works will be another concern during construction phase.

Operation phase

Increased irrigation water might encourage farmers to use more agro-chemicals and fertilizer to carry out intensive farming.

2. Monitoring method

(1) Monitoring frequency: Weekly basis

(2) Location of monitoring: Surface water at upstream/downstream of canals where construction sites.

(3) Recording method: items below at site laboratory or MOE laboratory

(4) Evaluation criteria:

Parameters	Unit	Rivers	Lakes/Reservoirs
1. pH		6.5 – 8.5	6.5 – 8.5
2. BOD	mg/l	1 – 10	-
3. COD	mg/l	-	1 – 8
4. Suspended solids	mg/l	25 – 100	1 – 15
5. Dissolved oxygen	mg/l	2.0 – 7.5	2.0 – 7.5
6. Coliform	MPN/100 ml	< 5,000	< 1,000
7. Total nitrogen	mg/l	-	0.1 – 0.6
8. Total phosphorus	mg/l	-	0.005 – 0.05

Source: sub-decree on Wate Pollution Control

3. Mitigation measures

(1) Construction phase

(i) dilute or neutralize alkalified water from concrete mixer trucks by pooling in regulating pond before discharging;

(ii) pool discharging water from the concrete plant for dilution or neutralization; and,

(iii) install adequate treatment system for muddy and alkalified water in construction site such as installation of water tank to collect water from concrete works for neutralization.

(2) Operation phase

(i) conduct support programs regarding appropriate agricultural management;

(ii) introduce composting activity to the farmers;

(iii) introduce check system among the FWUC members regarding agricultural management; and,

(iv) monitor water quality and agricultural activities regularly.

Month 01: June-July 2023: No construction activity

Month 02: August 2023: No construction activity

Month 03: September 2023: No construction activity

Month 04: October 2023: No construction activity

1. Roleang Chrey Sub-project

(1) Headworks

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
26 Jan. 2024	Upstream	Backfilling cofferdam	35	31	Colorless	No smell	7.71	-	-	64
Sunny	Downstream		-	-	-	-	-	-	-	-
28 Feb. 2024	Upstream	Backfilling cofferdam	32	29	Colorless	No smell	7.67	-	-	32
Sunny	Downstream		-	-	-	-	-	-	-	-
Mar. 2024	Upstream	Reinforcement of existing piers of headworks	34	31	Brown	No smell	7.69	Nothing noticeable	< 1.0	120
	Downstream		35	32	Brown	No smell	7.70	Nothing noticeable	< 1.0	100
Mar. 2024	Upstream	Reinforcement of existing piers of headworks	33	31	Brown	No smell	7.61	Nothing noticeable	< 1.0	100
	Downstream		36	32	Brown	No smell	7.78	Nothing noticeable	< 1.0	100
Mar. 2024	Upstream	Reinforcement of existing piers of headworks	36	32	Clear	No smell	7.70	Nothing noticeable	< 1.0	70
	Downstream		34	3	Clear	No smell	7.71	Nothing noticeable	< 1.0	50
Mar. 2024	Upstream	Reinforcement of existing piers of headworks	35	32	Clear	No smell	7.53	Nothing noticeable	< 1.0	50
	Downstream		33	31	Clear	No smell	7.34	Nothing noticeable	< 1.0	70
Apr. 2024	Upstream	Reinforcement of existing piers of headworks	34	32	Clear	No smell	7.51	Nothing noticeable	< 1.0	70
	Downstream		35	31	Clear	No smell	7.37	Nothing noticeable	< 1.0	70
Apr. 2024	Upstream	Reinforcement of existing piers of headworks	34	31	Brown	No smell	7.43	Nothing noticeable	< 1.0	120
	Downstream		34	32	Brown	No smell	7.35	Nothing noticeable	< 1.0	120
Apr. 2024	Upstream	Reinforcement of existing piers of headworks	34	31	Clear	No smell	7.64	Nothing noticeable	< 1.0	70
	Downstream		33	30	Clear	No smell	7.28	Nothing noticeable	< 1.0	50
Apr. 2024	Upstream	Reinforcement of existing piers of headworks	35	31	Clear	No smell	6.92	Nothing noticeable	< 1.0	50
	Downstream		34	32	Clear	No smell	7.44	Nothing noticeable	< 1.0	70
May 2024	Upstream	Reinforcement of existing piers of headworks	35	32	Brown	No smell	7.11	Nothing noticeable	< 1.0	100
	Downstream		34	30	Brown	No smell	7.23	Nothing noticeable	< 1.0	100
May 2024	Upstream	Reinforcement of existing piers of headworks	34	30	Brown	No smell	7.47	Nothing noticeable	< 1.0	100
	Downstream		35	33	Brown	No smell	7.46	Nothing noticeable	< 1.0	100
May 2024	Upstream	Reinforcement of existing piers of headworks	36	32	Clear	No smell	7.65	Nothing noticeable	< 1.0	70
	Downstream		34	33	Clear	No smell	7.58	Nothing noticeable	< 1.0	50

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
May 2024	Upstream	Reinforcement of existing piers of headworks	33	29	Clear	No smell	7.32	Nothing noticeable	< 1.0	50
	Downstream		35	31	Clear	No smell	7.34	Nothing noticeable	< 1.0	70
27 Dec 2024	Upstream	Embankment, excavation, structure work	28	26	Clear	No smell	7.12	Nothing noticeable	< 1.0	50
Sunny	Downstream		28	26	Clear	No smell	7.18	Nothing noticeable	< 1.0	50
03 Jan. 2025	Upstream	Embankment, excavation, structure work	31	30	Clear	No smell	7.54	Nothing noticeable	< 1.0	80
Cloudy	Downstream		30	30	Clear	No smell	7.65	Nothing noticeable	< 1.0	80
17 Jan. 2025	Upstream	Embankment, excavation, structure work	30	30	Brown	No smell	7.60	Nothing noticeable	< 1.0	50
Sunny	Downstream		30	30	Brown	No smell	7.54	Nothing noticeable	< 1.0	50
28 Mar 2025	Upstream	Embankment, excavation, structure work	30	30	Clear	No smell	7.43	Nothing noticeable	< 1.0	50
Sunny	Downstream		30	30	Clear	No smell	7.49	Nothing noticeable	< 1.0	50
04 Apr. 2025	Upstream	Structure work and earthwork	30	30	Clear	No smell	7.59	Nothing noticeable	< 1.0	50
Cloudy	Downstream		30	29	Clear	No smell	7.48	Nothing noticeable	< 1.0	50
18 Apr. 2025	Upstream	Structure work and earthwork	30	30	Brown	No smell	7.40	Nothing noticeable	< 1.0	80
Sunny	Downstream		30	29	Brown	No smell	7.35	Nothing noticeable	< 1.0	80
09 May 2025	Upstream	Structure work and earthwork	31	30	Brown	No smell	7.21	Nothing noticeable	< 1.0	80
Cloudy	Downstream		31	30	Brown	No smell	7.28	Nothing noticeable	< 1.0	80
23 May 2025	Upstream	Structure work and earthwork	31	30	Brown	No smell	7.46	Nothing noticeable	< 1.0	100
Cloudy	Downstream		31	30	Brown	No smell	7.35	Nothing noticeable	< 1.0	100
06 Jun. 2025	Upstream	Structure work and earthwork	30	29	Brown	No smell	6.95	Nothing noticeable	< 1.0	100
Sunny	Downstream		30	30	Brown	No smell	7.10	Nothing noticeable	< 1.0	100
27 Jun. 2025	Upstream	Structure work and earthwork	30	28	Brown	No smell	7.20	Nothing noticeable	< 1.0	80
Sunny	Downstream		30	28	Brown	No smell	7.11	Nothing noticeable	< 1.0	80

Note: Appear.: Appearance, TSS: Total Suspended Solid

Comparative standard values for rivers are based on Sub-decree on Water Pollution Control.

(2) North Main Canal

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
17 Nov. 2023	Upstream	Install temporary site facilities, mobilization	30	25	Colorless	No smell	6.91	None	-	140
Sunny	Downstream		30	25	Colorless	No smell	6.78	None	-	140
29 Dec. 2023	Upstream	Excavation, pumping	31	26.6	Colorless	No smell	7.72	None	-	64
Sunny	Downstream		31	26.8	Colorless	No smell	8.22	None	-	64

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
14 Jun. 2024	Upstream	Embankment, excavation, structure work	35	29	Clear	No smell	7.55	None	< 1.0	75
Cloudy	Downstream		35	28	Clear	No smell	7.56	None	< 1.0	75
28 Jun. 2024	Upstream	Embankment, excavation, structure work	33	31	Clear	No smell	7.58	None	< 1.0	75
Sunny	Downstream		33	31	Clear	No smell	7.51	None	< 1.0	75
12 Jul. 2024	Upstream	Embankment, excavation, structure work	31	29	Clear	No smell	7.46	None	< 1.0	75
Sunny	Downstream		31	30	Clear	No smell	7.53	None	< 1.0	75
26 Jul. 2024	Upstream	Embankment, excavation, structure work	32	29	Clear	No smell	7.44	None	< 1.0	75
Sunny	Downstream		32	28	Clear	No smell	7.47	None	< 1.0	75
09 Aug. 2024	Upstream	Embankment, excavation, structure work	29	28	Brown	No smell	7.55	None	< 1.0	100
Sunny	Downstream		29	27	Brown	No smell	7.56	None	< 1.0	100
23 Aug. 2024	Upstream	Embankment, excavation, structure work	31	29	Brown	No smell	7.46	None	< 1.0	100
Sunny	Downstream		31	29	Brown	No smell	7.50	None	< 1.0	100
13 Sep. 2024	Upstream	Embankment, excavation, structure work	31	28	Clear	No smell	7.67	None	< 1.0	50
Cloudy	Downstream		31	27	Clear	No smell	7.65	None	< 1.0	50
27 Sep. 2024	Upstream	Embankment, excavation, structure work	31	29	Clear	No smell	7.61	None	< 1.0	50
Cloudy	Downstream		31	29	Clear	No smell	7.57	None	< 1.0	50
11 Oct. 2024	Upstream	Embankment, excavation, structure work	35	29	Clear	No smell	7.23	None	< 1.0	80
Sunny	Downstream		35	28	Clear	No smell	7.21	None	< 1.0	80
25 Oct. 2024	Upstream	Embankment, excavation, structure work	33	31	Brown	No smell	7.18	None	< 1.0	50
Sunny	Downstream		33	31	Brown	No smell	7.22	None	< 1.0	50
15 Nov 2024	Upstream	Embankment, excavation, structure work	30	28	Brown	No smell	6.87	None	< 1.0	50
Sunny	Downstream		30	28	Brown	No smell	6.92	None	< 1.0	50
29 Nov 2024	Upstream	Embankment, excavation, structure work	30	28	Clear	No smell	7.35	None	< 1.0	50
Sunny	Downstream		30	27	Clear	No smell	7.30	None	< 1.0	50
13 Dec. 2024	Upstream	Embankment, excavation, structure work	29	28	Brown	No smell	7.26	None	< 1.0	80
Sunny	Downstream		29	27	Brown	No smell	7.23	None	< 1.0	80
20 Dec. 2024	Upstream	Embankment, excavation, structure work	29	27	Brown	No smell	7.32	None	< 1.0	50
Sunny	Downstream		29	27	Brown	No smell	7.34	None	< 1.0	50
10 Jan. 2025	Upstream	Embankment, excavation, structure work	32	31	Clear	No smell	7.47	None	< 1.0	80
Sunny	Downstream		31	31	Clear	No smell	7.52	None	< 1.0	80
24 Jan. 2025	Upstream	Embankment, excavation, structure work	33	31	Brown	No smell	7.51	None	< 1.0	50
Sunny	Downstream		32	30	Brown	No smell	7.48	None	< 1.0	50

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
14 Feb. 2025	Upstream	Embankment, excavation, structure work	34	32	Clear	No smell	7.53	None	< 1.0	50
Sunny	Downstream		33	32	Clear	No smell	7.56	None	< 1.0	50
28 Feb. 2025	Upstream	Embankment, excavation, structure work	33	31	Clear	No smell	7.58	None	< 1.0	50
Sunny	Downstream		32	31	Clear	No smell	7.61	None	< 1.0	50
14 Mar 2025	Upstream	Embankment, excavation, structure work	31	31	Clear	No smell	7.34	None	< 1.0	80
Cloudy	Downstream		32	30	Clear	No smell	7.42	None	< 1.0	80
21 Mar 2025	Upstream	Embankment, excavation, structure work	32	31	Clear	No smell	7.48	None	< 1.0	50
Sunny	Downstream		31	31	Clear	No smell	7.52	None	< 1.0	50
11 Apr. 2025	Upstream	Structure work and earthwork	31	29	Brown	No smell	7.61	None	< 1.0	80
Sunny	Downstream		31	29	Brown	No smell	7.55	None	< 1.0	80
25 Apr. 2025	Upstream	Structure work and earthwork	31	30	Brown	No smell	7.48	None	< 1.0	80
Sunny	Downstream		31	30	Brown	No smell	7.46	None	< 1.0	80
16 May 2025	Upstream	Structure work and earthwork	30	31	Brown	No smell	7.32	None	< 1.0	80
Sunny	Downstream		30	30	Brown	No smell	7.30	None	< 1.0	80
30 May 2025	Upstream	Structure work and earthwork	31	28	Brown	No smell	7.15	None	< 1.0	80
Cloudy	Downstream		31	29	Brown	No smell	7.23	None	< 1.0	80
13 Jun. 2025	Upstream	Structure work and earthwork	31	28	Brown	No smell	7.12	None	< 1.0	80
Cloudy	Downstream		31	28	Brown	No smell	7.23	None	< 1.0	80
20 Jun. 2025	Upstream	Structure work and earthwork	30	29	Brown	No smell	7.25	None	< 1.0	80
Cloudy	Downstream		30	29	Brown	No smell	7.19	None	< 1.0	80

Note: Appear.: Appearance, TSS: Total Suspended Solid

Comparative standard values for rivers are based on Sub-decree on Water Pollution Control.

(3) South Main Canal

No measurements were taken because the channel was substantially suspended.

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
17 Nov. 2023	Upstream	Install temporary site facilities, mobilization	32	27	Colorless	No smell	7.51	None	-	140
Sunny	Downstream		32	26	Colorless	No smell	7.24	None	-	140
29 Dec. 2023	Upstream	Excavation, pumping	31	27	Colorless	No smell	7.38	None	-	64

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
Sunny	Downstream		30	26.8	Colorless	No smell	7.21	None	-	64
07 Jun. 2024	Upstream	Embankment, excavation, structure work	34	30	Clear	No smell	7,65	None	< 1.0	75
Sunny	Downstream		34	30	Clear	No smell	7.65	None	< 1.0	75
21 Jun. 2024	Upstream	Embankment, excavation, structure work	33	31	Clear	No smell	7.61	None	< 1.0	50
Cloudy	Downstream		33	30	Clear	No smell	7.65	None	< 1.0	50
05 Jul. 2024	Upstream	Embankment, excavation, structure work	33	30	Brown	No smell	7.55	None	< 1.0	100
Cloudy	Downstream		33	30	Brown	No smell	7.57	None	< 1.0	100
19 Jul. 2024	Upstream	Embankment, excavation, structure work	32	30	Clear	No smell	7.67	None	< 1.0	75
Cloudy	Downstream		32	30	Clear	No smell	7.65	None	< 1.0	75
02 Aug. 2024	Upstream	Embankment, excavation, structure work	30	28	Brown	No smell	7.60	None	< 1.0	120
Sunny	Downstream		30	28	Brown	No smell	7.63	None	< 1.0	100
16 Aug. 2024	Upstream	Embankment, excavation, structure work	30	28	Brown	No smell	7.65	None	< 1.0	100
Sunny	Downstream		30	29	Brown	No smell	7.66	None	< 1.0	100
06 Sep. 2024	Upstream	Embankment, excavation, structure work	32	28	Clear	No smell	7.71	None	< 1.0	75
Sunny	Downstream		32	28	Clear	No smell	7.70	None	< 1.0	75
20 Sep. 2024	Upstream	Embankment, excavation, structure work	33	28	Clear	No smell	7.59	None	< 1.0	50
Cloudy	Downstream		33	29	Clear	No smell	7.62	None	< 1.0	50
04 Oct. 2024	Upstream	Embankment, excavation, structure work	34	30	Clear	No smell	6.72	None	< 1.0	80
Cloudy	Downstream		34	30	Clear	No smell	7.10	None	< 1.0	80
18 Oct. 2024	Upstream	Embankment, excavation, structure work	33	31	Brown	No smell	7.59	None	< 1.0	50
Cloudy	Downstream		33	30	Brown	No smell	7.37	None	< 1.0	50
08 Nov 2024	Upstream	Embankment, excavation, structure work	30	27	Brown	No smell	7.12	None	< 1.0	50
Cloudy	Downstream		30	26	Brown	No smell	7.06	None	< 1.0	50
22 Nov 2024	Upstream	Embankment, excavation, structure work	31	27	Clear	No smell	7.10	None	< 1.0	50
Sunny	Downstream		31	27	Clear	No smell	7.13	None	< 1.0	50
06 Dec. 2024	Upstream	Embankment, excavation, structure work	30	28	Brown	No smell	7.34	None	< 1.0	80
Sunny	Downstream		30	28	Brown	No smell	7.48	None	< 1.0	80
07 Feb. 2025	Upstream	Embankment, excavation, structure work	33	32	Clear	No smell	7.44	None	< 1.0	50
Cloudy	Downstream		33	32	Clear	No smell	7.48	None	< 1.0	50
21 Feb. 2025	Upstream	Embankment, excavation, structure work	32	31	Clear	No smell	7.60	None	< 1.0	50
Cloudy	Downstream		32	31	Clear	No smell	7.54	None	< 1.0	50
07 Mar 2025	Upstream		33	33	Clear	No smell	6.98	None	< 1.0	80

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
Sunny	Downstream	Embankment, excavation, structure work	32	32	Clear	No smell	7.12	None	< 1.0	80
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									

Note: Appear.: Appearance, TSS: Total Suspended Solid

Comparative standard values for rivers are based on Sub-decree on Water Pollution Control.

2. Kandal Stung-Bati Sub-project

(1) Stung Touch River

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
16 Nov. 2023	Upstream	Install temporary site facilities, mobilization	32	27	Colorless	No smell	7.14	None	-	140
Sunny	Downstream		32	27	Colorless	No smell	6.43	None	-	140
16 Dec. 2023	Upstream	Dewatering	33	32	Colorless	No smell	6.84	None	-	50
Sunny	Downstream		33	33	Colorless	No smell	8.38	None	-	100
19 Jan. 2024	Upstream	Clearing muddy and dewatering	34	32	Colorless	No smell	7.61	None	-	50
Sunny	Downstream		34	32	Colorless	No smell	7.92	None	-	50
16 Feb. 2024	Upstream	Clearing muddy and dewatering	34	32	Colorless	No smell	7.65	None	-	50
Sunny	Downstream		34	32	Colorless	No smell	7.86	None	-	50
Mar. 2024	Upstream	Excavation of riverbed	36	34	Clear	No smell	7.81	Nothing noticeable	< 1.0	64
	Downstream		36	34	Clear	No smell	7.28	Nothing noticeable	< 1.0	50
Mar. 2024	Upstream	Excavation of riverbed	32	31.5	Clear	No smell	7.20	Nothing noticeable	< 1.0	64
	Downstream		32	31.5	Clear	No smell	7.11	Nothing noticeable	< 1.0	64
Mar. 2024	Upstream	Excavation of riverbed	34	32	Clear	No smell	7.21	Nothing noticeable	< 1.0	50
	Downstream		34	33	Clear	No smell	7.61	Nothing noticeable	< 1.0	50
Apr. 2024	Upstream	Excavation of riverbed	34	32	Clear	No smell	7.92	Nothing noticeable	< 1.0	64
	Downstream		34	32	Clear	No smell	7.67	Nothing noticeable	< 1.0	64
Apr. 2024	Upstream	Excavation of riverbed	32	29	Clear	No smell	7.56	Nothing noticeable	< 1.0	50
	Downstream		35	31	Clear	No smell	7.32	Nothing noticeable	< 1.0	50
Apr. 2024	Upstream	Excavation of riverbed	32.2	31.5	Clear	No smell	7.36	Nothing noticeable	< 1.0	64
	Downstream		32.2	31.5	Clear	No smell	6.95	Nothing noticeable	< 1.0	64
Apr. 2024	Upstream	Excavation of riverbed	33	30	Clear	No smell	7.06	Nothing noticeable	< 1.0	64
	Downstream		34	31	Clear	No smell	6.89	Nothing noticeable	< 1.0	64
May 2024	Upstream	Excavation of riverbed	33	31	Clear	No small	6.97	Nothing noticeable	< 1.0	64
	Downstream		34	31	Clear	No smell	6.86	Nothing noticeable	< 1.0	64
May 2024	Upstream	Excavation of riverbed	35	30	Clear	No smell	7.23	Nothing noticeable	< 1.0	50
	Downstream		33	28	Clear	No smell	7.23	Nothing noticeable	< 1.0	50
May 2024	Upstream	Excavation of riverbed	33	30	Clear	No smell	7.54	Nothing noticeable	< 1.0	64
	Downstream		34	31	Clear	No smell	7.45	Nothing noticeable	< 1.0	64
May 2024	Upstream	Excavation of riverbed	33	32	Clear	No smell	7.33	Nothing noticeable	< 1.0	64
	Downstream		31	29	Clear	No smell	7.25	Nothing noticeable	< 1.0	64

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
21 Jun. 2024	Upstream	Embankment, excavation, driving pile	32	35.6	Brown	No smell	7.35	Nothing noticeable	< 1.0	100
Sunny	Downstream		33	34.7	Brown	No smell	6.76	Nothing noticeable	< 1.0	64
05 Jul. 2024	Upstream	Embankment, excavation, driving pile	31	31.2	Clear	No smell	6.73	Nothing noticeable	< 1.0	107
Sunny	Downstream		31	31.7	Clear	No smell	7.33	Nothing noticeable	< 1.0	107
19 Jul. 2024	Upstream	Embankment, excavation, driving pile	30	33	Clear	No smell	7.56	Nothing noticeable	< 1.0	50
Cloudy	Downstream		30	33	Clear	No smell	6.23	Nothing noticeable	< 1.0	50
09 Aug 2024	Upstream	Embankment, excavation, driving pile	34	33	Clear	No smell	7.10	Nothing noticeable	< 1.0	64
Cloudy	Downstream		34	32	Clear	No smell	7.00	Nothing noticeable	< 1.0	64
23 Aug 2024	Upstream	Embankment, excavation, driving pile	32	31	Clear	No smell	7.23	Nothing noticeable	< 1.0	64
Sunny	Downstream		32	30	Clear	No smell	7.12	Nothing noticeable	< 1.0	64
13 Sep. 2024	Upstream	Embankment, excavation, driving pile	33	30	Clear	No smell	7.10	Nothing noticeable	< 1.0	100
Cloudy	Downstream		33	30	Clear	No smell	7.00	Nothing noticeable	< 1.0	100
27 Sep. 2024	Upstream	Embankment, excavation, driving pile	32	30	Clear	No smell	7.32	Nothing noticeable	< 1.0	75
Sunny	Downstream		32	30	Clear	No smell	7.38	Nothing noticeable	< 1.0	75
04 Oct. 2024	Upstream	Embankment, excavation, driving PHC pile	30	33.7	Brown	No smell	6.90	Nothing noticeable	< 1.0	100
Rainy	Downstream		30	31.1	Brown	No smell	7.56	Nothing noticeable	< 1.0	100
18 Oct. 2024	Upstream	Embankment, excavation, driving PHC pile	31	34.2	Brown	No smell	7.87	Nothing noticeable	< 1.0	100
Cloudy	Downstream		31	33.7	Brown	No smell	7.30	Nothing noticeable	< 1.0	64
08 Nov 2024	Upstream	Embankment, excavation, driving PHC pile	31	33.2	Clear	No smell	6.90	Nothing noticeable	< 1.0	107
Sunny	Downstream		31	32.7	Clear	No smell	7.56	Nothing noticeable	< 1.0	107
22 Nov 2024	Upstream	Embankment, excavation, driving PHC pile	29	32.3	Brown	No smell	7.23	Nothing noticeable	< 1.0	50
Sunny	Downstream		29	32.1	Brown	No smell	6.86	Nothing noticeable	< 1.0	50
14 Dec. 2024	Upstream	Embankment, excavation, driving PHC pile	30	31.4	Brown	No smell	7.32	Nothing noticeable	< 1.0	64
Cloudy	Downstream		30	31.2	Brown	No smell	7.65	Nothing noticeable	< 1.0	64
24 Jan. 2025	Upstream	Embankment, excavation, driving PHC pile	32	34.2	Brown	No smell	8.20	Nothing noticeable	< 1.0	100
Sunny	Downstream		33	33.9	Brown	No smell	8.40	Nothing noticeable	< 1.0	50
21 Feb. 2025	Upstream	Embankment, excavation, driving PHC pile	33	34.4	Brown	No smell	8.36	Nothing noticeable	< 1.0	100
Sunny	Downstream		31	33.9	Brown	No smell	8.10	Nothing noticeable	< 1.0	100
13 Mar 2025	Upstream	Embankment, excavation, driving PHC pile	30	31.5	Brown	No smell	8.32	Nothing noticeable	< 1.0	100
Sunny	Downstream		31	32.3	Brown	No smell	7.56	Nothing noticeable	< 1.0	100
27 Mar 2025	Upstream	Embankment, excavation, driving PHC pile	32	33.8	Brown	No smell	8.23	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	32.7	Brown	No smell	7.95	Nothing noticeable	< 1.0	64

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
25 Apr. 2025	Upstream	Embankment, excavation, driving PHC pile	31	32.5	Brown	No smell	6.97	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	33	Brown	No smell	7.21	Nothing noticeable	< 1.0	64
23 May 2025	Upstream	Embankment, excavation, driving PHC pile	33	34.5	Brown	No smell	7.42	Nothing noticeable	< 1.0	100
Sunny	Downstream		33	34.5	Brown	No smell	7.38	Nothing noticeable	< 1.0	100
13 Jun. 2025	Upstream	Embankment, excavation, driving PHC pile	30	31.3	Brown	No smell	7.41	Nothing noticeable	< 1.0	100
Cloudy	Downstream		30	31.5	Brown	No smell	7.56	Nothing noticeable	< 1.0	100
27 Jun. 2025	Upstream	Embankment, excavation, driving PHC pile	32	33,2	Brown	No smell	7.65	Nothing noticeable	< 1.0	120
Sunny	Downstream		32	33.5	Brown	No smell	7.59	Nothing noticeable	< 1.0	120
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									

Note: Appear.: Appearance, TSS: Total Suspended Solid

Comparative standard values for rivers are based on Sub-decree on Water Pollution Control.

(2) KC-4 Connection Canal

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
Mar. 2024	Upstream	Excavation of canal bed.	35	30	Clear	No smell	7.55	Nothing noticeable	< 1.0	50
	Downstream		35	32	Clear	No smell	7.55	Nothing noticeable	< 1.0	50
07 Jun. 2024	Upstream	Embankment, excavation, driving pile	28	35.7	Brown	No smell	6.77	Nothing noticeable	< 1.0	100
Sunny	Downstream		28	32.1	Brown	No smell	7.23	Nothing noticeable	< 1.0	100
12 Jul. 2024	Upstream	Embankment, excavation, driving pile	33	32	Clear	No smell	6.85	Nothing noticeable	< 1.0	64
Sunny	Downstream		33	33	Clear	No smell	7.23	Nothing noticeable	< 1.0	64
26 Jul. 2024	Upstream	Embankment, excavation, driving pile	32	32.5	Clear	No smell	7.15	Nothing noticeable	< 1.0	64
Cloudy	Downstream		31	31	Clear	No smell	6.92	Nothing noticeable	< 1.0	64
16 Aug 2024	Upstream	Embankment, excavation, driving pile	33	29	Clear	No smell	7.54	Nothing noticeable	< 1.0	120
Sunny	Downstream		34	30	Clear	No smell	7.89	Nothing noticeable	< 1.0	120
20 Sep. 2024	Upstream	Embankment, excavation, driving pile	34	32	Clear	No smell	7.44	Nothing noticeable	< 1.0	100
Sunny	Downstream		34	31	Clear	No smell	7.56	Nothing noticeable	< 1.0	75
25 Oct. 2024	Upstream	Embankment, excavation, driving PHC pile	30	33.9	Brown	No smell	7.50	Nothing noticeable	< 1.0	50
Cloudy	Downstream		30	32.5	Brown	No smell	7.10	Nothing noticeable	< 1.0	50

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
15 Nov 2024	Upstream	Embankment, excavation, driving PHC pile	30	31.9	Brown	No smell	7.70	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	33.2	Brown	No smell	7.52	Nothing noticeable	< 1.0	64
29 Nov 2024	Upstream	Embankment, excavation, driving PHC pile	32	31.8	Brown	No smell	6.89	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	31.7	Brown	No smell	6.70	Nothing noticeable	< 1.0	64
21 Dec 2024	Upstream	Embankment, excavation, driving PHC pile	28	30	Brown	No smell	7.20	Nothing noticeable	< 1.0	64
Sunny	Downstream		29	30	Brown	No smell	7.87	Nothing noticeable	< 1.0	64
03 Jan. 2025	Upstream	Embankment, excavation, driving PHC pile	33	34	Brown	No smell	7.90	Nothing noticeable	< 1.0	100
Sunny	Downstream		31	32.5	Bronw	No smell	7.89	Nothing noticeable	< 1.0	64
17 Jan. 2025	Upstream	Embankment, excavation, driving PHC pile	32	33	Brown	No smell	7.90	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	34	Brown	No smell	8.50	Nothing noticeable	< 1.0	100
14 Feb. 2025	Upstream	Embankment, excavation, driving PHC pile	32	32.8	Brown	No smell	7.96	Nothing noticeable	< 1.0	100
Sunny	Downstream		30	33.9	Brown	No smell	8.10	Nothing noticeable	< 1.0	100
06 Mar 2025	Upstream	Embankment, excavation, driving PHC pile	33	34.5	Brown	No smell	8.23	Nothing noticeable	< 1.0	120
Sunny	Downstream		31	33.9	Brown	No smell	8.44	Nothing noticeable	< 1.0	120
04 Apr. 2025	Upstream	Embankment, Excavation, and Driving PHC pile	33	34	Brown	No smell	6.92	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	33	Brown	No smell	7.26	Nothing noticeable	< 1.0	64
18 Apr. 2025	Upstream	Embankment, Excavation, and Driving PHC pile	32	34	Brown	No smell	7.40	Nothing noticeable	< 1.0	64
Cloudy	Downstream		31	32.5	Brown	No smell	7.28	Nothing noticeable	< 1.0	64
16 May 2025	Upstream	Embankment, Excavation, and Driving PHC pile	31	33.2	Brown	No smell	7.53	Nothing noticeable	< 1.0	100
Sunny	Downstream		31	33	Brown	No smell	7.51	Nothing noticeable	< 1.0	100
06 Jun. 2025	Upstream	Embankment, Excavation, and Driving PHC pile	32	33.2	Brown	No smell	7.68	Nothing noticeable	< 1.0	120
Sunny	Downstream		32	33.5	Brown	No smell	7.75	Nothing noticeable	< 1.0	120
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									

(3) Kampong Daungkor Spillway

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
14 Jun. 2024	Upstream	Embankment, excavation, driving pile	30	33.5	Clear	No smell	7.32	Nothing noticeable	< 1.0	64
Sunny	Downstream		30	32.0	Clear	No smell	7.99	Nothing noticeable	< 1.0	50
28 Jun. 2024	Upstream		29	31.9	Clear	No smell	7.12	Nothing noticeable	< 1.0	50

Date Weather	Location	Type of Work	Construction Phase							
			Temperature (°C)		Color	Odor	pH	*Appear.	*TSS (mg/l)	Turbidity (NTU)
			Air	Water			6.5 – 8.5			
Sunny	Downstream	Embankment, excavation, driving pile	29	31.2	Clear	No smell	7.30	Nothing noticeable	< 1.0	50
02 Aug.2024	Upstream	Embankment, excavation, driving pile	32	33.1	Clear	No smell	6.54	Nothing noticeable	< 1.0	64
Cloudy	Downstream		32	33.6	Clear	No smell	6.49	Nothing noticeable	< 1.0	64
06 Sep. 2024	Upstream	Embankment, excavation, driving pile	32	31	Clear	No smell	6.89	Nothing noticeable	< 1.0	120
Cloudy	Downstream		32	31	Clear	No smell	7.12	Nothing noticeable	< 1.0	100
11 Oct. 2024	Upstream	Embankment, excavation, driving PHC pile	32	33.1	Clear	No smell	6.98	Nothing noticeable	< 1.0	64
Cloudy	Downstream		33	33.5	Clear	No smell	7.30	Nothing noticeable	< 1.0	50
07 Dec. 2024	Upstream	Embankment, excavation, driving PHC pile	29	30.1	Clear	No smell	6.98	Nothing noticeable	< 1.0	100
Sunny	Downstream		29	31.6	Clear	No smell	6.54	Nothing noticeable	< 1.0	100
28 Dec 2024	Upstream	Embankment, excavation, driving PHC pile	31	32.7	Clear	No smell	6.85	Nothing noticeable	< 1.0	64
Sunny	Downstream		31	32.5	Clear	No smell	6.55	Nothing noticeable	< 1.0	64
10 Jan. 2025	Upstream	Embankment, excavation, driving PHC pile	30	31.5	Brown	No smell	8.05	Nothing noticeable	< 1.0	100
Sunny	Downstream		32	34.2	Brown	No smell	8.20	Nothing noticeable	< 1.0	64
07 Feb. 2025	Upstream	Embankment, excavation, driving PHC pile	33	34.2	Brown	No smell	8.40	Nothing noticeable	< 1.0	107
Sunny	Downstream		32	33.5	Brown	No smell	7.20	Nothing noticeable	< 1.0	64
28 Feb. 2025	Upstream	Embankment, excavation, driving PHC pile	31	32.7	Brown	No smell	8.23	Nothing noticeable	< 1.0	107
Sunny	Downstream		33	33.6	Brown	No smell	8.20	Nothing noticeable	< 1.0	107
20 Mar 2025	Upstream	Embankment, excavation, driving PHC pile	29	33.8	Brown	No smell	7.65	Nothing noticeable	< 1.0	64
Sunny	Downstream		33	34.2	Brown	No smell	8.01	Nothing noticeable	< 1.0	64
11 Apr. 2025	Upstream	Embankment, excavation, driving PHC pile	31	33,5	Brown	No smell	7.17	Nothing noticeable	< 1.0	64
Cloudy	Downstream		32	34.5	Brown	No smell	7.32	Nothing noticeable	< 1.0	64
09 May 2025	Upstream	Embankment, excavation, driving PHC pile	33	34.5	Brown	No smell	7.54	Nothing noticeable	< 1.0	100
Sunny	Downstream		32	34.5	Brown	No smell	7.62	Nothing noticeable	< 1.0	100
30 May 2025	Upstream	Embankment, excavation, driving PHC pile	33	34.5	Brown	No smell	7.56	Nothing noticeable	< 1.0	100
Sunny	Downstream		32	34.5	Brown	No smell	7.62	Nothing noticeable	< 1.0	100
20 Jun. 2025	Upstream	Embankment, excavation, driving PHC pile	30	32.8	Brown	No smell	7.62	Nothing noticeable	< 1.0	64
Cloudy	Downstream		30	32.8	Brown	No smell	7.78	Nothing noticeable	< 1.0	64
	Upstream									
	Downstream									
	Upstream									
	Downstream									
	Upstream									
	Downstream									

E-3: Monitoring of Construction Vehicle /Machine

1. Expected potential impact:	During construction phase, transportation of heavy equipment would cause air pollution, noise and vibration. Transportation of construction vehicles and transportation/operation of heavy equipment, such as dump truck, excavator, bulldozer, roller compactor and watering lorry, would exhaust emission gasses including nitrogen dioxide (NO_2) and suspended particular matter (SPM). And also, such heavy equipment would cause noise and vibration.
2. Monitoring method	
(1) Monitoring frequency:	Daily basis
(2) Location of monitoring:	Roads and access roads in the construction site
(3) Recording method:	Counted by the Contractor
(4) Evaluation criteria:	Number of construction vehicle and construction machine

Month 01:	June-July 2023:	No construction activity
Month 02:	August 2023:	No construction activity
Month 03:	September 2023:	No construction activity
Month 04:	October 2023:	No construction activity

Number of Construction Vehicle/Machine from Jun. 2023 to Jun. 2025

Month		RC + KSB				Roleang Chrey (RC)				Kandal Stung-Bati (KSB)			
		Const. Vehicle		Const. Machine		Const. Vehicle		Const. Machine		Const. Vehicle		Const. Machine	
		Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
1	23-Jun-Jul	-	-	-	-	-	-	-	-	-	-	-	-
2	Aug-23	-	-	-	-	-	-	-	-	-	-	-	-
3	Sep-23	-	-	-	-	-	-	-	-	-	-	-	-
4	Oct-23	-	-	-	-	-	-	-	-	-	-	-	-
5	Nov-23	-	-	-	-	154	139	82	82	-	-	-	-
6	Dec-23	502	479	274	265	-	-	-	-	-	-	-	-
7	Jan-24	620	551	56	50	-	-	-	-	-	-	-	-
8	Feb-24	826	737	201	191	-	-	-	-	-	-	-	-
9	Mar-24	812	790	119	121	308	286	62	63	504	504	57	58
10	Apr-24	450	460	85	85	245	255	53	53	205	205	32	32
11	May-24	1,311	1,311	359	365	688	688	55	61	623	623	304	304
12	Jun-24	1,746	1,733	365	377	1,174	1,155	8	8	572	578	357	369
13	Jul-24	1,636	1,594	188	192	727	704	38	38	909	890	150	154
14	Aug-24	1,402	1,351	133	130	647	630	1	1	755	721	132	129
15	Sep-24	2,237	2,183	222	222	822	803	31	31	1,415	1,380	191	191
16	Oct-24	438	428	255	264	352	337	46	46	86	91	209	218
17	Nov-24	964	943	289	298	697	674	36	36	267	269	253	262
18	Dec-24	1,308	1,340	248	257	587	560	61	61	721	780	187	196
19	Jan-25	1,103	1,096	279	290	630	608	158	158	473	488	121	132
20	Feb-25	1,411	1,418	241	239	784	766	120	113	627	652	121	126
21	Mar-25	1,581	1,552	207	209	908	884	100	101	673	668	107	108
22	Apr-25	928	924	423	423	365	361	252	252	563	563	171	171
23	May-25	940	930	376	375	408	404	222	224	532	526	154	151
24	Jun-25	554	542	402	403	175	172	190	191	379	370	212	212
25	Jul-25												
26	Aug-25												
27	Sep-25												
28	Oct-25												
29	Nov-25												
30	Dec-25												
31	Jan-26												
32	Feb-26												
33	Mar-26												
34	Apr-26												
35	May-26												
36	Jun-26												
37	Jul-26												
38	Aug-26												
39	Sep-26												
40	Oct-26												
41	Nov-26												
42	Dec-26												
43	Jan-27												
44	Feb-27												
45	Mar-27												
46	Apr-27												
47	May-27												
48	Jun-27												
49	Jul-27												
50	Aug-27												
51	Sep-27												
52	Oct-27												
53	Nov-27												
54	Dec-27												
55	Jan-28												
56	Feb-28												
57	Mar-28												
58	Apr-28												
59	May-28												
60	Jun-28												

Month 19: April 2025

Detail of Location: Roleang Chrey Site

No.	Date		Working Time		Number				Type of Construction
					Construction Vehicle		Construction Machine		
			Start	Finish	Plan	Actual	Plan	Actual	
1	1-Apr-25	Tue	7:00 AM	5:00 PM	20	20	12	12	Earthwork & Structure work
2	2-Apr-25	Wed	7:00 AM	5:00 PM	20	18	12	12	Earthwork & Structure work
3	3-Apr-25	Thu	7:00 AM	5:00 PM	17	17	12	12	Earthwork & Structure work
4	4-Apr-25	Fri	7:00 AM	5:00 PM	3	3	12	12	Earthwork & Structure work
5	5-Apr-25	Sat	7:00 AM	5:00 PM	13	13	12	12	Earthwork & Structure work
6	6-Apr-25	Sun			0	0	0	0	Day off
7	7-Apr-25	Mon	7:00 AM	5:00 PM	25	25	12	12	Earthwork & Structure work
8	8-Apr-25	Tue	7:00 AM	5:00 PM	24	24	12	12	Earthwork & Structure work
9	9-Apr-25	Wed	7:00 AM	5:00 PM	26	26	12	12	Earthwork & Structure work
10	10-Apr-25	Thu	7:00 AM	5:00 PM	26	26	12	12	Earthwork & Structure work
11	11-Apr-25	Fri	7:00 AM	5:00 PM	24	24	12	12	Earthwork & Structure work
12	12-Apr-25	Sat			0	0	0	0	Khmer New Year
13	13-Apr-25	Sun			0	0	0	0	Khmer New Year
14	14-Apr-25	Mon			0	0	0	0	Khmer New Year
15	15-Apr-25	Tue			0	0	0	0	Khmer New Year
16	16-Apr-25	Wed			0	0	0	0	Khmer New Year
17	17-Apr-25	Thu			0	0	0	0	Khmer New Year
18	18-Apr-25	Fri	7:00 AM	5:00 PM	5	5	12	12	Earthwork & Structure work
19	19-Apr-25	Sat	7:00 AM	5:00 PM	5	5	12	12	Earthwork & Structure work
20	20-Apr-25	Sun			0	0	0	0	Day off
21	21-Apr-25	Mon	7:00 AM	5:00 PM	10	10	12	12	Earthwork & Structure work
22	22-Apr-25	Tue	7:00 AM	5:00 PM	13	13	12	12	Earthwork & Structure work
23	23-Apr-25	Wed	7:00 AM	5:00 PM	8	8	12	12	Earthwork & Structure work
24	24-Apr-25	Thu	7:00 AM	5:00 PM	22	20	12	12	Earthwork & Structure work
25	25-Apr-25	Fri	7:00 AM	5:00 PM	22	22	12	12	Earthwork & Structure work
26	26-Apr-25	Sat	7:00 AM	5:00 PM	20	20	12	12	Earthwork & Structure work
27	27-Apr-25	Sun			0	0	0	0	Day off
28	28-Apr-25	Mon	7:00 AM	5:00 PM	26	26	12	12	Earthwork & Structure work
29	29-Apr-25	Tue	7:00 AM	5:00 PM	22	22	12	12	Earthwork & Structure work
30	30-Apr-25	Wed	7:00 AM	5:00 PM	14	14	12	12	Earthwork & Structure work
31									
	TOTAL				365	361	252	252	

Month 19: April 2025

Detail of Location: Kandal Stung-Bati Site

No.	Date		Working Time		Number				Type of Construction
					Construction Vehicle		Construction Machine		
			Start	Finish	Plan	Actual	Plan	Actual	
1	1-Apr-25	Tue	7:00 AM	5:00 PM	21	21	7	7	Earthwork and Structure work
2	2-Apr-25	Wed	7:00 AM	5:00 PM	25	25	8	8	Earthwork and Structure work
3	3-Apr-25	Thu	7:00 AM	5:00 PM	14	14	8	8	Earthwork and Structure work
4	4-Apr-25	Fri	7:00 AM	5:00 PM	20	20	7	7	Earthwork and Structure work
5	5-Apr-25	Sat	7:00 AM	5:00 PM	19	19	8	8	Earthwork and Structure work
6	6-Apr-25	Sun	7:00 AM	5:00 PM	21	21	8	8	Earthwork and Structure work
7	7-Apr-25	Mon	7:00 AM	5:00 PM	20	20	5	5	Earthwork and Structure work
8	8-Apr-25	Tue	7:00 AM	5:00 PM	23	23	10	10	Earthwork and Structure work
9	9-Apr-25	Wed	7:00 AM	5:00 PM	28	28	9	9	Earthwork and Structure work
10	10-Apr-25	Thu	7:00 AM	5:00 PM	30	30	9	9	Earthwork and Structure work
11	11-Apr-25	Fri	7:00 AM	5:00 PM	29	29	8	8	Earthwork and Structure work
12	12-Apr-25	Sat	7:00 AM	5:00 PM	33	33	3	3	Earthwork and Structure work
13	13-Apr-25	Sun			0	0	0	0	Khmer New Year
14	14-Apr-25	Mon			0	0	0	0	Khmer New Year
15	15-Apr-25	Tue			0	0	0	0	Khmer New Year
16	16-Apr-25	Wed			0	0	0	0	Khmer New Year
17	17-Apr-25	Thu			0	0	0	0	Khmer New Year
18	18-Apr-25	Fri	7:00 AM	5:00 PM	35	35	6	6	Earthwork and Structure work
19	19-Apr-25	Sat	7:00 AM	5:00 PM	17	17	8	8	Earthwork and Structure work
20	20-Apr-25	Sun	7:00 AM	5:00 PM	15	15	8	8	Earthwork and Structure work
21	21-Apr-25	Mon	7:00 AM	5:00 PM	17	17	7	7	Earthwork and Structure work
22	22-Apr-25	Tue	7:00 AM	5:00 PM	26	26	7	7	Earthwork and Structure work
23	23-Apr-25	Wed	7:00 AM	5:00 PM	24	24	6	6	Earthwork and Structure work
24	24-Apr-25	Thu	7:00 AM	5:00 PM	20	20	6	6	Earthwork and Structure work
25	25-Apr-25	Fri	7:00 AM	5:00 PM	24	24	5	5	Earthwork and Structure work
26	26-Apr-25	Sat	7:00 AM	5:00 PM	26	26	5	5	Earthwork and Structure work
27	27-Apr-25	Sun	7:00 AM	5:00 PM	16	16	7	7	Earthwork and Structure work
28	28-Apr-25	Mon	7:00 AM	5:00 PM	24	24	5	5	Earthwork and Structure work
29	29-Apr-25	Tue	7:00 AM	5:00 PM	18	18	6	6	Earthwork and Structure work
30	30-Apr-25	Wed	7:00 AM	5:00 PM	18	18	5	5	Earthwork and Structure work
31									
	TOTAL				**563**	**563**	**171**	**171**	

Month 20: May 2025

Detail of Location: Roleang Chrey Site

No.	Date		Working Time		Number				Type of Construction
					Construction Vehicle		Construction Machine		
			Start	Finish	Plan	Actual	Plan	Actual	
1	1-May-25	Thu	7:00 AM	5:00 PM	17	17	11	11	Earthwork & Structure work
2	2-May-25	Fri	7:00 AM	5:00 PM	21	21	11	11	Earthwork & Structure work
3	3-May-25	Sat	7:00 AM	5:00 PM	12	12	11	11	Earthwork & Structure work
4	4-May-25	Sun			0	0	0	0	Day off
5	5-May-25	Mon	7:00 AM	5:00 PM	12	12	9	9	Earthwork & Structure work
6	6-May-25	Tue	7:00 AM	5:00 PM	9	9	9	9	Earthwork & Structure work
7	7-May-25	Wed	7:00 AM	5:00 PM	10	10	10	10	Earthwork & Structure work
8	8-May-25	Thu	7:00 AM	5:00 PM	10	9	9	9	Earthwork & Structure work
9	9-May-25	Fri	7:00 AM	5:00 PM	11	11	9	9	Earthwork & Structure work
10	10-May-25	Sat	7:00 AM	5:00 PM	14	14	9	9	Earthwork & Structure work
11	11-May-25	Sun			0	0	0	0	Day off
12	12-May-25	Mon	7:00 AM	5:00 PM	14	14	9	9	Earthwork & Structure work
13	13-May-25	Tue	7:00 AM	5:00 PM	15	15	9	9	Earthwork & Structure work
14	14-May-25	Wed	7:00 AM	5:00 PM	20	20	9	9	Earthwork & Structure work
15	15-May-25	Thu	7:00 AM	5:00 PM	20	19	9	9	Earthwork & Structure work
16	16-May-25	Fri	7:00 AM	5:00 PM	20	19	9	9	Earthwork & Structure work
17	17-May-25	Sat	7:00 AM	5:00 PM	23	23	9	9	Earthwork & Structure work
18	18-May-25	Sun			0	0	0	0	Day off
19	19-May-25	Mon	7:00 AM	5:00 PM	19	19	9	9	Earthwork & Structure work
20	20-May-25	Tue	7:00 AM	5:00 PM	19	19	9	9	Earthwork & Structure work
21	21-May-25	Wed	7:00 AM	5:00 PM	19	19	9	9	Earthwork & Structure work
22	22-May-25	Thu	7:00 AM	5:00 PM	19	18	9	9	Earthwork & Structure work
23	23-May-25	Fri	7:00 AM	5:00 PM	13	13	9	9	Earthwork & Structure work
24	24-May-25	Sat	7:00 AM	5:00 PM	13	13	9	9	Earthwork & Structure work
25	25-May-25	Sun			0	0	0	0	Day off
26	26-May-25	Mon	7:00 AM	5:00 PM	14	14	10	10	Earthwork & Structure work
27	27-May-25	Tue	7:00 AM	5:00 PM	15	15	4	4	Earthwork & Structure work
28	28-May-25	Wed	7:00 AM	5:00 PM	13	13	4	4	Earthwork & Structure work
29	29-May-25	Thu	7:00 AM	5:00 PM	12	12	4	4	Earthwork & Structure work
30	30-May-25	Fri	7:00 AM	5:00 PM	12	12	3	3	Earthwork & Structure work
31	31-May-25	Sat	7:00 AM	5:00 PM	12	12	1	3	Earthwork & Structure work
	TOTAL				408	404	222	224	

Month 20: May 2025

Detail of Location: Kandal Stung-Bati Site

No.	Date		Working Time		Number				Type of Construction
					Construction Vehicle		Construction Machine		
			Start	Finish	Plan	Actual	Plan	Actual	
1	1-May-25	Thu	7:00 AM	5:00 PM	24	24	3	3	Earthwork and Structure work
2	2-May-25	Fri	7:00 AM	5:00 PM	21	21	5	4	Earthwork and Structure work
3	3-May-25	Sat	7:00 AM	5:00 PM	20	19	2	2	Earthwork and Structure work
4	4-May-25	Sun	7:00 AM	5:00 PM	11	11	0	0	Earthwork and Structure work
5	5-May-25	Mon	7:00 AM	5:00 PM	17	17	4	4	Earthwork and Structure work
6	6-May-25	Tue	7:00 AM	5:00 PM	21	20	6	6	Earthwork and Structure work
7	7-May-25	Wed	7:00 AM	5:00 PM	21	21	6	6	Earthwork and Structure work
8	8-May-25	Thu	7:00 AM	5:00 PM	16	16	3	3	Earthwork and Structure work
9	9-May-25	Fri	7:00 AM	5:00 PM	16	16	8	8	Earthwork and Structure work
10	10-May-25	Sat	7:00 AM	5:00 PM	20	20	6	6	Earthwork and Structure work
11	11-May-25	Sun	7:00 AM	5:00 PM	20	18	6	6	Earthwork and Structure work
12	12-May-25	Mon	7:00 AM	5:00 PM	13	13	4	4	Earthwork and Structure work
13	13-May-25	Tue	7:00 AM	5:00 PM	15	15	3	3	Earthwork and Structure work
14	14-May-25	Wed	7:00 AM	5:00 PM	17	17	3	3	Earthwork and Structure work
15	15-May-25	Thu	7:00 AM	5:00 PM	12	12	3	3	Earthwork and Structure work
16	16-May-25	Fri	7:00 AM	5:00 PM	21	21	4	4	Earthwork and Structure work
17	17-May-25	Sat	7:00 AM	5:00 PM	20	20	4	4	Earthwork and Structure work
18	18-May-25	Sun	7:00 AM	5:00 PM	16	16	2	2	Earthwork and Structure work
19	19-May-25	Mon	7:00 AM	5:00 PM	20	19	2	2	Earthwork and Structure work
20	20-May-25	Tue	7:00 AM	5:00 PM	20	19	6	6	Earthwork and Structure work
21	21-May-25	Wed	7:00 AM	5:00 PM	20	20	6	6	Earthwork and Structure work
22	22-May-25	Thu	7:00 AM	5:00 PM	14	14	5	5	Earthwork and Structure work
23	23-May-25	Fri	7:00 AM	5:00 PM	15	15	7	7	Earthwork and Structure work
24	24-May-25	Sat	7:00 AM	5:00 PM	11	11	9	9	Earthwork and Structure work
25	25-May-25	Sun	7:00 AM	5:00 PM	20	20	8	8	Earthwork and Structure work
26	26-May-25	Mon	7:00 AM	5:00 PM	14	14	9	9	Earthwork and Structure work
27	27-May-25	Tue	7:00 AM	5:00 PM	15	15	8	8	Earthwork and Structure work
28	28-May-25	Wed	7:00 AM	5:00 PM	14	14	7	7	Earthwork and Structure work
29	29-May-25	Thu	7:00 AM	5:00 PM	15	15	5	4	Earthwork and Structure work
30	30-May-25	Fri	7:00 AM	5:00 PM	16	16	5	5	Earthwork and Structure work
31	31-May-25	Sat	7:00 AM	5:00 PM	17	17	5	4	Earthwork and Structure work
	TOTAL				**532**	**526**	**154**	**151**	

Month 21: June 2025

Detail of Location: Roleang Chrey Site

No.	Date		Working Time		Number				Type of Construction
					Construction Vehicle		Construction Machine		
			Start	Finish	Plan	Actual	Plan	Actual	
1	1-Jun-25	Sun			0	0	0	0	Day off
2	2-Jun-25	Mon	7:00 AM	5:00 PM	10	10	3	3	Earthwork & Structure work
3	3-Jun-25	Tue	7:00 AM	5:00 PM	10	10	3	3	Earthwork & Structure work
4	4-Jun-25	Wed	7:00 AM	5:00 PM	10	11	3	3	Earthwork & Structure work
5	5-Jun-25	Thu	7:00 AM	5:00 PM	10	7	3	3	Earthwork & Structure work
6	6-Jun-25	Fri	7:00 AM	5:00 PM	8	8	3	3	Earthwork & Structure work
7	7-Jun-25	Sat	7:00 AM	5:00 PM	7	7	2	3	Earthwork & Structure work
8	8-Jun-25	Sun	7:00 AM	5:00 PM	6	6	2	2	Earthwork & Structure work
9	9-Jun-25	Mon	7:00 AM	5:00 PM	7	7	5	5	Earthwork & Structure work
10	10-Jun-25	Tue	7:00 AM	5:00 PM	5	5	5	5	Earthwork & Structure work
11	11-Jun-25	Wed	7:00 AM	5:00 PM	5	5	11	11	Earthwork & Structure work
12	12-Jun-25	Thu	7:00 AM	5:00 PM	5	5	12	12	Earthwork & Structure work
13	13-Jun-25	Fri	7:00 AM	5:00 PM	5	5	12	12	Earthwork & Structure work
14	14-Jun-25	Sat	7:00 AM	5:00 PM	5	5	12	12	Earthwork & Structure work
15	15-Jun-25	Sun			0	0	0	0	Day off
16	16-Jun-25	Mon	7:00 AM	5:00 PM	5	5	12	12	Earthwork & Structure work
17	17-Jun-25	Tue	7:00 AM	5:00 PM	7	7	11	11	Earthwork & Structure work
18	18-Jun-25	Wed	7:00 AM	5:00 PM	5	5	11	11	Earthwork & Structure work
19	19-Jun-25	Thu	7:00 AM	5:00 PM	5	5	11	11	Earthwork & Structure work
20	20-Jun-25	Fri	7:00 AM	5:00 PM	5	5	11	11	Earthwork & Structure work
21	21-Jun-25	Sat	7:00 AM	5:00 PM	5	5	11	11	Earthwork & Structure work
22	22-Jun-25	Sun	7:00 AM	5:00 PM	10	9	11	11	Earthwork & Structure work
23	23-Jun-25	Mon	7:00 AM	5:00 PM	7	7	3	3	Earthwork & Structure work
24	24-Jun-25	Tue	7:00 AM	5:00 PM	8	8	7	7	Earthwork & Structure work
25	25-Jun-25	Wed	7:00 AM	5:00 PM	8	8	7	7	Earthwork & Structure work
26	26-Jun-25	Thu	7:00 AM	5:00 PM	8	8	7	7	Earthwork & Structure work
27	27-Jun-25	Fri	7:00 AM	5:00 PM	4	4	4	4	Earthwork & Structure work
28	28-Jun-25	Sat	7:00 AM	5:00 PM	4	4	4	4	Earthwork & Structure work
29	29-Jun-25	Sun			0	0	0	0	Day off
30	30-Jun-25	Mon	7:00 AM	5:00 PM	1	1	4	4	Earthwork & Structure work
31									
	TOTAL				175	172	190	191	

Month 21: June 2025

Detail of Location: Kandal Stung-Bati Site

No.	Date		Working Time		Number				Type of Construction
					Construction Vehicle		Construction Machine		
			Start	Finish	Plan	Actual	Plan	Actual	
1	1-Jun-25	Sun	7:00 AM	5:00 PM	10	10	2	2	Earthwork and Structure work
2	2-Jun-25	Mon	7:00 AM	5:00 PM	10	8	7	7	Earthwork and Structure work
3	3-Jun-25	Tue	7:00 AM	5:00 PM	10	10	9	9	Earthwork and Structure work
4	4-Jun-25	Wed	7:00 AM	5:00 PM	11	11	9	9	Earthwork and Structure work
5	5-Jun-25	Thu	7:00 AM	5:00 PM	11	11	7	7	Earthwork and Structure work
6	6-Jun-25	Fri	7:00 AM	5:00 PM	16	16	7	7	Earthwork and Structure work
7	7-Jun-25	Sat	7:00 AM	5:00 PM	13	13	9	9	Earthwork and Structure work
8	8-Jun-25	Sun	7:00 AM	5:00 PM	15	15	3	3	Earthwork and Structure work
9	9-Jun-25	Mon	7:00 AM	5:00 PM	16	16	5	5	Earthwork and Structure work
10	10-Jun-25	Tue	7:00 AM	5:00 PM	17	17	8	8	Earthwork and Structure work
11	11-Jun-25	Wed	7:00 AM	5:00 PM	15	15	7	7	Earthwork and Structure work
12	12-Jun-25	Thu	7:00 AM	5:00 PM	15	15	8	8	Earthwork and Structure work
13	13-Jun-25	Fri	7:00 AM	5:00 PM	15	15	5	5	Earthwork and Structure work
14	14-Jun-25	Sat	7:00 AM	5:00 PM	17	17	8	8	Earthwork and Structure work
15	15-Jun-25	Sun	7:00 AM	5:00 PM	8	8	2	2	Earthwork and Structure work
16	16-Jun-25	Mon	7:00 AM	5:00 PM	16	16	9	9	Earthwork and Structure work
17	17-Jun-25	Tue	7:00 AM	5:00 PM	15	15	6	6	Earthwork and Structure work
18	18-Jun-25	Wed	7:00 AM	5:00 PM	15	15	9	9	Earthwork and Structure work
19	19-Jun-25	Thu	7:00 AM	5:00 PM	11	11	12	12	Earthwork and Structure work
20	20-Jun-25	Fri	7:00 AM	5:00 PM	15	15	9	9	Earthwork and Structure work
21	21-Jun-25	Sat	7:00 AM	5:00 PM	10	8	9	9	Earthwork and Structure work
22	22-Jun-25	Sun	7:00 AM	5:00 PM	10	8	2	2	Earthwork and Structure work
23	23-Jun-25	Mon	7:00 AM	5:00 PM	10	8	12	12	Earthwork and Structure work
24	24-Jun-25	Tue	7:00 AM	5:00 PM	10	10	12	12	Earthwork and Structure work
25	25-Jun-25	Wed	7:00 AM	5:00 PM	10	9	5	5	Earthwork and Structure work
26	26-Jun-25	Thu	7:00 AM	5:00 PM	8	8	9	9	Earthwork and Structure work
27	27-Jun-25	Fri	7:00 AM	5:00 PM	12	12	12	12	Earthwork and Structure work
28	28-Jun-25	Sat	7:00 AM	5:00 PM	11	11	5	5	Earthwork and Structure work
29	29-Jun-25	Sun	7:00 AM	5:00 PM	10	10	1	1	Earthwork and Structure work
30	30-Jun-25	Mon	7:00 AM	5:00 PM	17	17	4	4	Earthwork and Structure work
31									
	TOTAL				379	370	212	212	

E-4: Monitoring of Waste Management

1. Expected potential impact:		Concrete and other construction waste would be produced by the construction works. In addition, rehabilitation and improvement work of the sub-projects will increase soil disposal.
2. Monitoring method		
	(1) Monitoring frequency:	-
	(2) Location of monitoring:	Surface water at upstream/downstream of canals where construction sites.
	(3) Recording method:	items below at site laboratory or MOE laboratory
	(4) Evaluation criteria:	Sub-decree on solid waste management

3. Mitigation measures

(i) comply with relevant laws pertaining to the management and disposal of solid waste, hazardous waste and re-waste;

(ii) arrange suitable sites for disposal of solid waste prior to the construction works;

(iii) avoid dumping in the area of private property without written consent of the owner; and,

(iv) carry out recycle use of disposed soil as much as possible.

Month 01:	June-July 2023:	No activity
Month 02:	August 2023:	No activity
Month 03:	September 2023:	No activity
Month 04:	October 2023:	No activity

1. Roleang Chrey Sub-project

Period	Items	Type of Waste				
		Construction soil	Concrete waste	Organic waste	Inorganic waste	Hazardous waste
Nov. 2023	Location	Project site (RLC) at waste storage				
	Work type	Site preparation, fencing, general waste				
	Volume	0 ton	0 ton	2 m^3	2 m^3	1 m^3
	Detail	-	-	-	-	-
	Treatment Measure	-	-	Discharged by waste company (ECODA waste management)		
	Remark	-	-	Will be discharged 1 or 2 times per month.		
Dec. 2023	Location	Project site (RLC) at waste storage				
	Work type	Site preparation, fencing, general waste				
	Volume	0 ton	0 ton	3 m^3	3 m^3	1 m^3
	Detail	-	-	-	-	-
	Treatment Measure	-	-	Discharged by waste company (ECODA waste management)		
	Remark	-	-	Will be discharged 1 or 2 times per month.		
Jan. 2024	Location	Project site (RLC) at waste storage				
	Work type	Excavation, clearing work, installation of cofferdam				
	Volume	33,184 m^3	0 ton	3 m^3	4 m^3	1 m^3
	Detail	-	-	-	-	-
	Treatment Measure	Transport to disposal area	-	Discharged by waste company (ECODA waste management)		
	Remark	-	-	Will be discharged 1 or 2 times per month.		
Feb. 2024	Location	Project site (RLC) at waste storage				
	Work type	Excavation, clearing work, installation of cofferdam				
	Volume	37,798 m^3	0 ton	4 m^3	4 m^3	2 m^3
	Detail	-	-	-	-	-
	Treatment Measure	Transport to disposal area	-	Discharged by waste company (ECODA waste management)		
	Remark	-	-	Will be discharged 1 or 2 times per month.		
Mar. 2024	Location	Workshop and general work at site				
	Work type	Excavation of canal, reinforcement of existing piers of headworks				
	Volume	63,305 m^3	0 ton	15 m^3	12 m^3	4 m^3
	Detail	Disposal soil	-	-	-	-
	Treatment Measure	Transport to disposal area	-	Discharge by waste company		
	Remark			Will be discharged 1 or 2 times per month.		
Jun. to Sep. 2024	Location	Project site (RLC) at waste storage				
	Work type	Workshop & General work at site				
	Volume	66,417 m^3	1.5 m^3	22 m^3	23 m^3	6 m^3
	Detail	Disposal soil	-	-	-	-
	Treatment Measure	Transport to disposal area	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)
	Remark	-	Fow washing waste concrete will be returned to batching plant.	Will discharge 2/3 times per month.		
Oct. to	Location	Project site (RLC) at waste storage				

Period	Items	Type of Waste				
		Construction soil	Concrete waste	Organic waste	Inorganic waste	Hazardous waste
Dec. 2024	Work type	Workshop & General work at site				
	Volume	22,681 m^3	2 m^3	11 m^3	10 m^3	4 m^3
	Detail	Disposal soil				
	Treatment Measure	Transport to disposal area	Discharge at designed waste concrete location.	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)
	Remark		For washing waste concrete will be returned to batching plant.	Will discharge 2/3 times per month.		
Jan. to Mar. 2025	Location	Project site (RLC) at waste storage				
	Work type	Workshop & General work at site & structure work				
	Volume	14,043 m^3	3 m^3	8 m^3	12 m^3	2 m^3
	Detail	Disposal soil				
	Treatment Measure	Mobilize to approved disposal area	Discharge at designed waste concrete location.	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)
	Remark		For washing mixer truck will be returned to batching plant.	Will discharge 2/3 times per month.		
Apr. to Jun. 2025	Location	Project site (RLC) at waste storage				
	Work type	Workshop & General work at site & structure work				
	Volume	0 m^3	2 m^3	4 m^3	7 m^3	1 m^3
	Detail	Disposal soil				
	Treatment Measure	Mobilize to approved disposal area	Discharge at designed waste concrete location.	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)	Discharge by waste company (ECODA)
	Remark		For washing mixer truck will be returned to batching plant.	Will discharge 2/3 times per month.		
	Location					
	Work type					
	Volume					
	Detail					
	Treatment Measure					
	Remark					

2. Kandal Stung-Bati Sub-project

Period	Items	Type of Waste				
		Construction soil	Concrete waste	Organic waste	Inorganic waste	Hazardous waste
Mar. 2024	Location	Workshop and general work at site / site office				
	Work type	Excavation of canal, reinforcement of existing piers of headworks				
	Volume	63,305 m^3	0 ton	16 m^3	14 m^3	3 m^3
	Detail	Disposal soil	-	-	-	-
	Treatment Measure	Transport to disposal area	-	Discharge by waste company		
	Remark			Will be discharged 1 or 2 times per month.		

Period	Items	Type of Waste				
		Construction soil	Concrete waste	Organic waste	Inorganic waste	Hazardous waste
Jun. to Sep. 2024	Location	KDS sub-project				
	Work type	Workshop and general work at site / site office				
	Volume	70,361 m^3	1.5 ton	16 m^3	14 m^3	3 m^3
	Detail	Disposal soil	-	-	-	-
	Treatment Measure	Transport to disposal area	Discharged by waste company (ECODA)	Discharged by waste company (ECODA)	Discharged by waste company (ECODA)	Discharged by waste company (ECODA)
	Remark	-	Fow washing waste concrete will be returned to batching plant.	Will discharge 1/2 times per month.		
Oct. to Dec. 2024	Location	KDS sub-project				
	Work type	Workshop and general work at site / site office				
	Volume	66,570 m^3	2 m^3	12 m^3	11 m^3	2 m^3
	Detail	Disposal soil				
	Treatment Measure	Transport to disposal area	Discharged by waste company	Discharged by waste company	Discharged by waste company	Discharged by waste company
	Remark		Fow washing waste concrete will be returned to batching plant.	Will discharge 1/2 times per month.		
Jan. to Mar. 2025	Location	KDS sub-project				
	Work type	Workshop and general work at site / site office				
	Volume	0 m^3	4 m^3	9 m^3	14 m^3	5 m^3
	Detail	Disposal soil				
	Treatment Measure	Transport to disposal area	Discharge at designated area only	Discharged by waste company	Discharged by waste company	Discharged by waste company
	Remark		For washing waste concrete will be returned to batching plant.	Will discharge 1/2 times per month.		
Apr. to Jun. 2025	Location	KDS sub-project				
	Work type	Workshop and general work at site / site office				
	Volume	0 m^3	4 m^3	7 m^3	11 m^3	3 m^3
	Detail	Disposal soil				
	Treatment Measure	Transport to disposal area	Discharge at designated area only	Discharged by waste company	Discharged by waste company	Discharged by waste company
	Remark		For washing waste concrete will be returned to batching plant.	Will discharge 1/2 times per month.		
	Location					
	Work type					
	Volume					
	Detail					
	Treatment Measure					
	Remark					

Monitoring Form S-1: Preparation and Implementation Period

Roleang Chrey Sub-project

Name of village: The Roleang Chrey Subproject	
Date:	
Monitoring period: August 2020 to February 2025	
Name of person in charge of filling this form (name of agency): GDR, MEF	
1. Consultation with PAP	
Planned period: October 2020 to April 2021 (Based on BRP, this planned period covered DMS, preparation of DRP, Consultations during the preparation, DRP submission and request for approval from JICA)	Implemented period: October 2020 to December 2022 (The implementation period covered post DRP approval, contract signing, compensation payments and monitoring progress)
a) Describe the consultation activities conducted during the monitoring period: - Conducted 12 separate public consultation meetings (PCM) at commune level prior to the Detailed Measurement Survey. - Conducted 2 focused public consultation meetings during the preparation of DRP with the poor and vulnerable households, to verify their socioeconomic status and confirm whether they would permanently lose their business. - Conducted a series of PCM on December 3, 14 and 15, 2022, participated by 434 AHs prior to contract signing. b) Result of the consultation (reactions, opinions, objections, etc.): Most of the questions raised by the AHs was on the compensation policy. The AHs accepted the explanations and clarifications provided regarding the sub-project's impacts and the compensation policy, and subsequently agreed to sign the contract and receive the compensation payment. c) Main reason (s) for delay of progress (if delayed): - Re-alignments of DED prepared by the MOWRAM during the DRP implementation stage due to (i) correction of some technical errors and (ii) Some of the AHs with substantial impact on their land, requesting for change in alignment of the ROW. - The DMS progress and PCMs were delayed due to frequent in-country travel bans and restrictions implemented by the Royal Government of Cambodia, following the COVID-19 outbreak from January 2020 to November 2021.	
2. Agreement from PAP	
Planned period: December 2022 - January 2023	Implemented period: November 2022-October 2024
a) Number of households who agreed to be resettled: Out of 1,007 AHs, 27 households were resettled (physically displaced) and the remaining 980 AHs suffered economic loss. b) Main reason (s) for delay of the negotiations (if delayed): The main reason for the delays faced was the unavailability of a lot of AHs at the times scheduled for the contract signing. It was very difficult to find or reach out to some AHs, even though the IRC-working group and local authorities had tried their best. Moreover, for some AHs it took multiple rounds of consultation, explanation and clarification before reaching an agreement on the compensation offered.	
3. Compensation payment	
Planned period: December 2022 - January 2023	Implemented period: November 2022 - October 2024
a) Number of households who received compensation: 1,007 households b) Main reason (s) for delay (if delayed): The compensation disbursement process was delayed as a result of (i) unavailability of some of AHs due to absence from the location of their affected area, (ii) difficulties in verifying ownership of certain affected lands, and (iii) for some AHs it took multiple rounds of consultation, explanation and clarification before reaching an agreement on the compensation offered.	
4. Relocation of PAP	
Planned period: After January 2023	Implemented period: December 2022 (Due to the AHs agreeing and receiving the compensation earlier, in November 2022)
a) Number of households already relocated: 27 households b) Main reason(s) for delay (if delayed): None	
5. Grievance Status	
Planned period: Not Available	Implemented period: April 2020-October 2024
1) Cases of land acquisition referred to court which are pending and settled: None 2) Number of Stakeholder meeting for Grievance: None	

3) Number of cases disposed by IRC to the satisfaction of PAP's: None	
6. Status of Vulnerable people	
Planned period: After January 2023	Implemented period: December 2022
1) Taken care of displacement of Vulnerable people: A total of 27 households (100 affected persons), identified as poor and vulnerable, were required to relocate. All 27 affected households have received their entitled compensation package and additional assistance to support their relocation in compliance with the DRP. All the AHs opted for lump sum cash assistance. 2) Number of information of Grievance system for Vulnerable people: None	

Note: Monitoring for these items should be implemented from the start of the resettlement procedure to the end of all procedures of the physical resentment with monthly frequency.
This monitoring form should be prepared for each village.
This is a guideline monitoring form which indicates the major items to be monitored. The consolidated IRC-wise monitoring forms which are more practical and user-friendly at the field level are proposed abbreviation RAP or Land acquisition plan by MOWRAM and IRC.

Source: JICA Survey Team

Kandal Stung-Bati Sub-project

Name of village: The Kandal Stung-Bati Subproject	
Date:	
Monitoring period: August 2020 to February 2025	
Name of person in charge of filling this form (name of agency): GDR, MEF	
1. Consultation with PAP	
Planned period: August 2020 to January 2021 (Based on BRP, this planned period covered DMS, preparation of DRP, Consultations during the preparation, DRP submission and request for approval from JICA)	Implemented period: July 2020 - September 2022 (The implementation period covered post DRP approval, contract signing, compensation payments and monitoring progress)
a) Describe the consultation activities conducted during the monitoring period: - Conducted 6 separate public consultation meetings (PCM) at commune level prior to the Detailed Measurement Survey. - Conducted focused consultation meetings with landless Affected Households (AHs) with no means of support to provide details on the income improvement program. - Conducted a series of PCMs from September 21 to 30, 2022, participated by 86 AHs prior to contract signing. b) Result of the consultation (reactions, opinions, objections, etc.): Most of the questions raised by the AHs was on the compensation policy. The AHs accepted the explanations and clarifications provided regarding the sub-project's impacts and the compensation policy, and subsequently agreed to sign the contract and receive the compensation payment. One household initially rejected the compensation offer; however, the case was resolved by the IRC to the satisfaction of that household. c) Main reason (s) for delay of progress (if delayed): - Re-alignments of DED prepared by the MOWRAM during the DRP implementation stage due to (i) correction of some technical errors and (ii) Some of the AHs with substantial impact on their land, requesting for change in alignment of the ROW. - The DMS progress and PCMs were delayed due to frequent in-country travel bans and restrictions implemented by the Royal Government of Cambodia, following the COVID-19 outbreak from January 2020 to November 2021.	
2. Agreement from PAP	
Planned period: August – October 2022	Implemented period: September 2022 to November 2023
a) Number of households who agreed to be resettled: Out of 287 AHs, 8 households were resettled (physically displaced) and the remaining 279 AHs suffered economic loss. b) Main reason (s) for delay of the negotiations (if delayed): The main reason for the delays faced was the unavailability of a lot of AHs at the times scheduled for the contract signing. It was very difficult to find or reach out to some AHs, even though the IRC-working group and local authorities had tried their best. Moreover, for some AHs it took multiple rounds of consultation, explanation and clarification before reaching an agreement on the compensation offered.	
3. Compensation payment	
Planned period: August – October 2022	Implemented period: September 2022 - November 2023
a) Number of households who received compensation: 287 households b) Main reason (s) for delay (if delayed): The compensation disbursement process was delayed as a result of (i) unavailability of some of AHs due to absence from the location of their affected area, (ii) difficulties in verifying ownership of certain affected lands, and (iii) for some AHs it took multiple rounds of consultation, explanation and clarification before reaching an agreement on the compensation offered.	
4. Relocation of PAP	
Planned period: After October 2022	Implemented period: November 2022
a) Number of households already relocated: 8 households b) Main reason(s) for delay (if delayed): None	
5. Grievance Status	
Planned period: Not Available	Implemented period: May 2020 – November 2023
1) Cases of land acquisition referred to court which are pending and settled: None 2) Number of Stakeholder meeting for Grievance: 3 meetings 3) Number of cases disposed by IRC to the satisfaction of PAP's: 1 Case	
6. Status of Vulnerable people	
Planned period: After October 2022	Implemented period: November 2022

1) Taken care of displacement of Vulnerable people:

   A total of 8 households (29 affected persons), identified as poor and vulnerable, were required to relocate. All 8 affected households have received their entitled compensation package and additional assistance to support their relocation in compliance with the DRP. All the AHs opted for lump sum cash assistance.

2) Number of information of Grievance system for Vulnerable people: None

Note: Monitoring for these items should be implemented from the start of the resettlement procedure to the end of all procedures of the physical resentment with monthly frequency.
This monitoring form should be prepared for each village.
This is a guideline monitoring form which indicates the major items to be monitored. The consolidated IRC-wise monitoring forms which are more practical and user-friendly at the field level are proposed abbreviation RAP or Land acquisition plan by MOWRAM and IRC.

Source: JICA Survey Team

Monitoring Form S-2: Land Acquisiotion and Resettlement (Preparation and Implementation Period)

Preparation of the RAP

Province Jurisdiction	Date	Resettlement workers (man-months)	Training and mobilization (No. of trained personnel	Socio-economic surveyed persons (No.)	Identified eligible persons (No.)	Distribution of information brochure (No. of distributed)	Holding Public consultation (No. of held)
Kampong Speu	May 27, 2020 (approval by MEF-GDR) June 29, 2020 (concurred by JICA)	52.4 MMs including 2 Design engineer, Resettlement action plan expert, Field IOL coordinateor & RAP assistance, 15 supervisors	N.A.	264 affected household heads (AHHs) of total lists of 1,194 AHHs	1,194 affected household heads (AHHs) or 5,912 affected persons	None To be distributed during Detailed Measurement Survey (DMS) stage	All 5 meetings 1: Oct. 29, 2019 2: Oct. 30, 2019 3: Nov. 13, 2019 4: Dec. 01, 2019 5: Dec. 10, 2019
Kandal Takeo	May 27, 2020 (approval by MEF-GDR) June 29, 2020 (concurred by JICA)	11.25 MMs including Design engineer, Resettlement action plan expert, Field IOL coordination & RAP assistance and 5 supervisors	N.A.	190 AHHs of total lists of 454 AHHs	454 affected household heads (AHHs) or 2,125 affected persons		All 4 meetings 1: Nov. 21, 2019 2: Nov. 14, 2019 3: Dec. 08, 2019 4: Dec. 14, 2019

Province Jurisdiction	Date	Land to be acquired (ha)	Owner identified land to be acquired (ha)	Not owner identified land to be acquired (ha)	Evaluated land to be acquired (ha)	Not evaluated land to be acquired (ha)	Identified structures to be acquired (No.)	Evaluated structures to be acquired (No.)	Identified Eligible persons (No.)	Finalization of the budget for the RAP (%)	Preparation of the RAP (%)	Approval of the RAP (done)
Kampong Speu	May 27, 2020 (approval by MEF-GDR) June 29, 2020 (concurred by JICA)	9.0ha	9.0ha	0ha	9.0ha	0ha	41 Nos.	41 Nos.	1,194 AHHs or 5,912 affected persons.	100%	100%	Done
Kandal Takeo	May 27, 2020 (approval by MEF-GDR) June 29, 2020 (concurred by JICA)	4.5ha	4.5ha	0ha	4.5ha	0ha	15 Nos.	15 Nos.	454 affected household heads (AHHs) or 2,125 affected persons	100%	100%	Done

Preparation of the DRP

Province Jurisdiction	Date	Resettlement workers (man-months)	Training and mobilization (No. of trained personnel	Socio-economic surveyed persons (No.)	Identified eligible persons (No.)	Distribution of information brochure (No. of distributed)	Holding Public consultation (No. of held)
Kampong Speu	Aug. 2022 (approved by MEF-GDR)	No information	No information	952 affected household heads (AHHs) of total lists of 986 AHHs.	986 affected household heads (AHHs) or 3,622 affected persons	1 no. updated.	Total 12 meetings 1: Oct. 05, 2020 2: Oct. 05, 2020 3: Oct. 06, 2020

Province Jurisdiction	Date	Resettlement workers (man-months)	Training and mobilization (No. of trained personnel	Socio-economic surveyed persons (No.)	Identified eligible persons (No.)	Distribution of information brochure (No. of distributed)	Holding Public consultation (No. of held)
	Sep. 22, 2022 (concurred by JICA)			*Remaining 34 AHHs could not be interviewed due to some of the AHs cannot be reached ans some AHs are not available to join the interview.			4: Oct. 06, 2020 5: Oct. 07, 2020 6: Oct. 07, 2020 7: Oct. 08, 2020 8: Oct. 08, 2020 9: Jan. 28, 2021 10: Jan. 28, 2021 11: Jan. 29, 2021 12: Jan. 29, 2021
Kandal Takeo	May 2022 (approved by MEF-GDR)	No information	No information	287 affected household heads (AHHs) (100%)	287 affected household heads (AHHs) or 1,103 affected persons	1 no. updated	Total 6 meetings 1: Jul. 30, 2020 2: Jul. 30, 2020 3: Jul. 31, 202 4: Aug. 03, 2020 5: Aug. 03, 2020 6: Aug. 04, 2020

Province Jurisdiction	Date	Land to be acquired (ha)	Owner identified land to be acquired (ha)	Not owner identified land to be acquired (ha)	Evaluated land to be acquired (ha)	Not evaluated land to be acquired (ha)	Identified structures to be acquired (No.)	Evaluated structures to be acquired (No.)	Identified Eligible persons (No.)	Finalization of the budget for the DRP (%)	Preparation of the DRP (%)	Approval of the DRP (done)
Kampong Speu	Aug. 2022	14.8 ha	14.8 ha	0.0 ha	14.8 ha	0.0 ha	Main Str.: 67 nos. 2nd str.: 316 nos.	Main Str.: 67 nos. 2nd str.: 316 nos.	3,622 Aps / 986 AHHs	100%	100%	Done
Kandal Takeo	May 2022	2.8 ha	2.8 ha	0.0 ha	2.8 ha	0.0 ha	Main Str.: 16 nos. 2nd str.: 165 nos.	Main Str.: 16 nos. 2nd str.: 165 nos.	1,103 APs / 287 AHHs	100%	100%	Done

Implementation of the DRP

Province Jurisdiction	Date	Land to be acquired (ha)	No. of affected Household/ Commercial Structures/ Common Property	Land already acquired (ha)	Household/ Commercial Structures /Common Property already relocated	Land remaining to be acquired (ha)	Household/ Commercial structures/ Common Property t be relocated	Payment Status	Expected date of completion
Kampong Speu	Feb. 2025	14.8 ha	1,007 AHHs Main Structure: 67 nos. 2nd structure: 316 nos.	14.8 ha	1,007 AHHs Main Structure: 67 nos. 2nd structure: 316 nos.	0.0 ha	None	100% completed	Completed in Feb. 2025
Kandal Takeo	Feb. 2025	2.8 ha	287 AHHs Main Structure: 16 nos. 2nd structure: 165 nos.	2.8 ha	287 AHHs Main Structure: 16 nos. 2nd structure: 165 nos.	0.0 ha	None	100% completed	Compled in Jun. 2023

Roleang Chrey Sub-project

1. Land acquisition	
Planned completion date: January 2023 (Disbursement of Compensation, Planned date in the DRP)	Actual completion date: October, 2024 (final compensation date)
Main reason(s) for delay (if delayed): - Re-alignments of DED prepared by the MOWRAM during the DRP implementation stage due to (i) correction of some technical errors and (ii) Some of the AHs with a substantial impact on their land, requesting for a change in the alignment of the ROW. - The DMS progress and Public Consultation Meeting were delayed due to frequent in-country travel bans and restrictions implemented by the Royal Government of Cambodia, following the COVID-19 outbreak from January 2020 to November 2021. - The compensation agreement was delayed due to (i) the unavailability of a lot of AHs at the times scheduled for the contract signing. It was very difficult to find or reach out to some AHs even though the IRC-working group and local authorities had tried their best. (ii) multiple rounds of consultation, explanation and clarification before reaching an agreement on the compensation offered. - The compensation disbursement process was delayed as a result of (i) the absence of AHs from the location of their affected area, (ii) difficulties in verifying ownership of certain affected lands, and (iii) it took multiple rounds of consultation, explanation and clarification with some AHs before reaching an agreement on the compensation offered.	
2. Relocation Status of Common Property Resources: None	
Planned period: None	Actual completion date: None
a) Water facilities b) School c) Health centre d) Social hall e) Access road f) Cultural Centre g) Main reason(s) for delay (if delayed)	
3. Compensation payment	
Planned completion date: December 2022 – January 2023	Actual completion date: October 2024
4. Relocation of PAPs	
Planned completion date: After January 2023	Actual completion date: December 2022 (Due to the AHs agreeing and receiving the compensation early, in November 2022)
Main reason(s) for delay (if delayed): None	

Note: This is a guideline monitoring form which indicates the major items to be monitored. The consolidated IRC-wise monitoring forms which are more practical and user-friendly at the field level are proposed abbreviation RAP or Land acquisition plan by MOWRAM and IRC.

Source: JICA Survey Team

Kandal Stung-Bati Sub-project

1. Land acquisition	
Planned completion date: October 2022 (Disbursement of Compensation, Planned date in the DRP)	Actual completion date: November 2023 (final compensation date)
Main reason(s) for delay (if delayed): - Re-alignments of DED prepared by the MOWRAM during the DRP implementation stage due to (i) correction of some technical errors and (ii) Some of the AHs with a substantial impact on their land, requesting for a change in the alignment of the ROW. - The DMS progress and Public Consultation Meeting were delayed due to frequent in-country travel bans and restrictions implemented by the Royal Government of Cambodia, following the COVID-19 outbreak from January 2020 to November 2021. - The compensation agreement was delayed due to (i) the unavailability of a lot of AHs at the times scheduled for the contract signing. It was very difficult to find or reach out to some AHs even though the IRC-working group and local authorities had tried their best. (ii) multiple rounds of consultation, explanation and clarification before reaching an agreement on the compensation offered. - The compensation disbursement process was delayed as a result of (i) the absence of AHs from the location of their affected area, (ii) difficulties in verifying ownership of certain affected lands, and (iii) it took multiple rounds of consultation, explanation and clarification with some AHs before reaching an agreement on the compensation offered.	
2. Relocation Status of Common Property Resources: None	

Planned period: None	Actual completion date: None
a) Water facilities b) School c) Health centre d) Social hall e) Access road f) Cultural Centre g) Main reason(s) for delay (if delayed)	
3. Compensation payment	
Planned completion date: August – October 2022	Actual completion date: November 2023
4. Relocation of PAPs	
Planned completion date: After October 2022	Actual completion date: November 2022 (Compensation period September to October 2022)
Main reason(s) for delay (if delayed): None	

Note: This is a guideline monitoring form which indicates the major items to be monitored. The consolidated IRC-wise monitoring forms which are more practical and user-friendly at the field level are proposed abbreviation RAP or Land acquisition plan by MOWRAM and IRC.

Source: JICA Survey Team