MOMBASA SPECIAL ECONOMIC ZONE PROJECT
CONTRACT PACKAGE 1 – CIVIL AND BUILDING WORKS
(KPA/065/2022-23/PDM)

MONTHLY ENVIRONMENTAL MONITORING REPORT

OCTOBER 2025

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1. INTRODUCTION

The Project is located within Mbuta Location of Likoni Sub-County, and comprises mainly of the following construction components:

- Quay (L: 300 m, W: 50 m, D: -15 m)
- Trestle and causeway (L: 363 m, W: 20 m)
- Cargo yard (13 ha)
- Turning basin / navigation channel (-15 m)
- Port faclities (e.g. administration building, gate, workshop)

This Monthly Environmental Monitoring Report provides a summary of the environmental management and monitoring activities undertaken in October 2025.

2. DESCRIPTION OF CONSTRUCTION ACTIVITIES

Table 1 summarizes the main construction activities undertaken during the month.

Table 1 Summary of Main Construction Activities

Component	Construction activities
Temporary facilities	Construction of access road, weighbridge, Contractor's office and canteen, perimeter fence and gate
Quay	Dredging of quay foundation and disposal of dredged material at designated offshore disposal site
Trestle / causeway	Dredging of trestle foundation and disposal of dredged material at designated offshore disposal site
Cargo yard	No activity
Turning basin / navigation channel	No activity
Port facilities	No activity
Others	No activity

Table 2 Photos of Main Construction Activities	
 Dredging	 Dredging
 Temporary Access Road Construction	 Temporary Access Road Construction
 Weighbridge Construction	 Contractor’s Office & Canteen Construction

 Temporary Access Road Construction	 Gate Installation

3. ENVIRONMENTAL MANAGEMENT

Table 3 shows the main mitigation measures undertaken during the month.

Table 3 Implemented Mitigation Measures

Potential Impacts	Mitigation Measures
Turbidity dispersion from dredging	Use of frame-type silt curtain
Fugitive dust from vehicle movement	Water sprinkling of access road and construction site using water bowser
Accidents from sand haulage trucks	Trucks hauling sand from quarry areas are regularly serviced as per manufacture's specifications.
Leakages or discharges of dredging material during transport to the offshore disposal site	Use of a Dredging and Dumping Monitoring System (DDMS), a real-time monitoring system to track and detect leakages from hopper barges involved in dredging and disposal operation.
Waste pollution	Storage of wastes within designated areas and containers.
Noise pollution	Truck drivers are instructed not to race nor hoot when approaching school and health center zones

4. ENVIRONMENTAL MONITORING

Table 4 shows the environmental monitoring implemented during the month.

Table 4 Implementation Status of Environmental Monitoring

Monitoring Item	Implementation (Y/N)	Implementation Dates	Reason for non-implementation
Noise	Yes	○ 07/10/2025 ○ 14/10/2025 ○ 21/10/2025 ○ 28/10/2025	Implemented on schedule
Air quality	No		Monitoring is scheduled to begin in November 2025
Turbidity (in situ survey)	Yes	○ 07/10/2025 11/10/2025 ○ 12/10/2025 ○ 15/10/2025 ○ 16/10/2025 ○ 17/10/2025 ○ 21/10/2025 ○ 22/10/2025 ○ 23/10/2025 ○ 30/10/2025 ○ 31/10/2025	Implemented on schedule
Turbidity (aerial survey)	No		Drone pilot application to fly was not approved by authorities for the month of October
General water quality	Yes	○ 12/10/2025 ○ 17/10/2025 ○ 23/10/2025	Implemented on schedule
Coral	Yes	2 4/10/2025 25/10/2025	Implemented on schedule
Seagrass	Yes	○ 24/10/2025 ○ 25/10/2205	Implemented on schedule
Macrobenthos	No		Not scheduled for this month

4.1. NOISE

4.1.1. Objective

Noise monitoring was conducted to confirm whether construction noise remained within acceptable levels (i.e. reference standard).

4.1.2. Method

Table 5 outlines the method of noise monitoring. Figure 1 shows the noise monitoring sites. Note that monitoring at N3 was not implemented in the month of October as it was set out and agreed by the Engineer Representative to begin in the month of November 2025.

Table 5 Method of Noise Monitoring	
Parameters	A-weighted equivalent sound level (LAeq)
Method	In situ measurement with sound level meter (PCE-322 Sound Level Meter)
Frequency	Once a week during daytime working hours (06:00-18:00)
Location	Construction boundary: N1 and N2 Sensitive site*: N3 (DCC office) *: Monitoring sites will be increased as necessary
Reference standard	N1 and N2: 75 dB[*1] N3: 55 dB (mixed residential) [*2] *1: Second Schedule of Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations 2009 *2: First Schedule of Environmental Management and Coordination (Noise and Excessive Vibration Pollution) (Control) Regulations 2009

Figure 1 Noise Monitoring Sites

4.1.3. Results and Discussion

Table 6 shows the results of noise monitoring. Noise levels were below the reference standard at all the monitoring sites and days.

Table 6 Results of Noise Monitoring

Date	Site	LAeq (dB)	Ref. standard (dB)	Possible cause of exceedance and remedial actions
7/10/2025	N1	54.9	75	Noise level was below the Reference Standard
	N2	43.3	75	Noise level was below the Reference Standard
14/10/2025	N1	60.0	75	Noise level was below the Reference Standard
	N2	54.5	75	Noise level was below the Reference Standard
21/10/2025	N1	54.3	75	Noise level was below the Reference Standard
	N2	42.0	75	Noise level was below the Reference Standard
28/10/2025	N1	65.2	75	Noise level was below the Reference Standard
	N2	59.8	75	Noise level was below the Reference Standard

4.2. WATER QUALITY

4.2.1. Turbidity (In-situ Measurement)

4.2.1.1 Objective

Turbidity monitoring (in situ measurement) was conducted to confirm whether turbidity dispersion from dredging and disposal activities remained within acceptable levels (i.e. reference standard).

4.2.1.2 Method

Table 7 outlines the method of turbidity monitoring for insitu measurements. Figure 2 shows turbidity monitoring sites.

Table 7 Method of Turbidity Monitoring (In-situ Measurement)	
Parameters	Turbidity (NTU)
Method	In situ measurement with water quality meter (TOA-DKK WQS-24)
Frequency	Three times/week during dredging works
Layer	Surface and bottom
Location	Port Reitz/ Kilindini: 5 sites (WI1-WI5) Tudor Creek: 3 sites (WI6-WI8) Inner reef: 4 sites (WIR1- WIR4) Outer reef: 5 sites (WOR3-WOR7)
Reference standard	Dredging/disposal method will be reconsidered in case of exceedance of the following levels for 2 weeks continuously: Inshore: Site specific baseline + Site specific threshold level Inner reef area: Site specific baseline + Threshold level (2 NTU) Outer reef area: Site specific baseline + Threshold level (1 NTU)

Figure 2 Turbidity Monitoring Sites

4.2.1.3 Results and Discussion

Table 8 shows the results of turbidity monitoring.

Table 8 Results of Turbidity Monitoring (NTU)																	
Date		**WI 1**	**WI 2**	**WI 3**	**WI 4**	**WI 5**	**WI 6**	**WI 7**	**WI 8**	**WIR 1**	**WIR 2**	**WIR 3**	**WIR 4**	**WOR 3**	**WOR 4**	**WOR 5**	**WOR 6**	**WOR 7**
07/10/2025	S	9.6	7.1	5.5	0.8	0.0	8.4	26.3	4.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	8.9	8.3	6.4	0.0	0.0	9.2	28.3	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11/10/2025	S	6.7	2.4	1.0	0.9	0.8	3.2	18.5	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
	B	10.7	2.5	1.2	0.7	0.5	6.1	16.6	13.9	0.0	0.2	0.2	0.0	0.0	0.0	0.3	0.0	0.0
12/10/2025	S	10.5	6.9	2.4	0.8	0.0	7.5	5.9	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	12.9	14.8	2.0	1.1	0.0	5.4	8.5	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15/10/2025	S	16.8	3.5	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	13.9	4.1	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16/10/2025	S	1.4	4.3	0.0	0.0	0.0	0.0	0.0	5.3	0.0	1.9	0.0	0.0	0.0	0.0	0,0	0.0	0.0
	B	2.4	4.9	0.0	0.0	0.0	0.0	0.0	7.7	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17/10/2025	S	4.7	1.8	0.0	0.0	0.0	0.0	0.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	4.7	1.9	0.0	0.0	0.0	0.0	0.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21/10/2025	S	9.1	10.2	7.5	2.1	0.0	8.5	13.9	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	9.8	8.5	2.4	2.5	0.0	9.2	14.3	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22/10.2025	S	12.4	10.0	2.2	3.6	2.7	11.1	11.3	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	12.8	10.6	4.3	3.3	0.0	13.2	12.6	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	S	8.7	9.2	2.2	2.2	2.0	2.1	9.9	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

23/10/2025	B	10.5	11.7	2.6	2.6	1.8	6.7	8.2	7.5	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0
30/10/2025	S	6.8	8.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	9.2	9.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31/10/2025	S	6.6	1.0	2/1	3.0	0.0	0.0	0.0	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B	5.6	1.4	1.7	2.4	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ref. Standard	**S/B**	**22.6**	**17.2**	**7.5**	**6.5**	**3.3**	**11.3**	**13.9**	**15.7**	**2.8**	**3.1**	**2.4**	**2.5**	**1.0**	**1.1**	**1.0**	**1.0**	**1.0**

Table 9 shows the status of exceedance of reference standard and implemented remidial actions if any.

Table 9 Status of exceedance of reference standard and Implemented Remedial Actions

Site	Exceedance of Ref. Standard (Y/N)*	Possible Cause of Exceedance and Remedial Actions
WI1	N	-
WI2	N	-
WI3	N	-
WI4	N	-
WI5	N	-
WI6	N	-
WI7	N	-
WI8	N	-
WIR1	N	-
WIR2	N	-
WIR3	N	-
WIR4	N	-
WOR3	N	-
WOR4	N	-
WOR5	N	-
WOR6	N	-
WOR7	N	-

*: Exceedance of ref. standard for 2 weeks continuously.

4.2.2. General Water Quality

4.2.2.1 Objective

General water quality monitoring was conducted to confirm the status of water quality around the construction site.

4.2.2.2 Method

Table 10 shows the method of general water quality monitoring. The monitoring sites are the same as turbidity monitoring (see Figure 2).

Table 10 Method of General Water Quality Monitoring	
Parameters	Water temp., salinity, pH, DO, SS, T-N, T-P, Coliforms
Method	Water temp., salinity, pH, DO: In situ measurement with portable multi-item water quality meter (TOA-DKK WQS-24) SS, T-N, T-P, Coliforms: Sampling and laboratory analysis
Frequency	One time/week during dredging works
Layer	Surface and bottom
Location	Port Reitz/ Kilindini: 5 sites (WI1-WI5) Tudor Creek: 3 sites (WI6-WI8) Inner reef: 4 sites (WIR1- WIR4) Outer reef: 5 sites (WOR3-WOR7)
Reference standard	See Table 1**1**

Table 11 Reference Standard

	pH	SS (mg/l)	T-N (mg/l)	TP (mg/l)	Total coliform (CFU/100ml)
WI1	6-9	42.6-88.9	2.4-4.4	0.01	<500
WI2		33.8-87.7	2.5-3.6	0.01	
WI3		22.8-72.8	0.1-2.2	0.01	
WI4		17.6-66.1	0.3-17.0	0.01-0.1	
WI5		7.9-52.6	1.8-2.9	0.01	
WI6		14.9-63.7	0.2-3.0	0.01	
WI7		22.1-74.8	0.2-4.5	0.01	
WI8		52.3-90.1	0.2-2.8	0.01	
WIR1		3.8-39.1	0.2-2.2	0.01	
WIR2		3.7-38.6	1.4-4.1	0.01	
WIR3		52.3	1.8-3.0	0.01-0.1	
WIR4		-	2.0-3.6	0.01	
WOR3		5.3-26.5	2.2-4.2	0.01	
WOR4		7.2-29.3	0.2-2.3	0.01	
WOR5		5.4-26.7	0.8-3.0	0.01	
WOR6		5.0-29.2	0.2-2.3	0.01	
WOR7		4.5-22.6	0.2-2.7	0.01	

Note: These values are set for reference purpose only.

pH and total coliform: The Environmental Management and Coordination (Water Quality) Regulations (2024), Schedule 10

SS: Range recorded through the Natural Condition Survey (2024)

T-N and T-P: Range recorded through the 14-day baseline survey (June-July 2025)

4.2.2.3 Results and discussion

Table 12 shows the results of general water quality monitoring. Overall, the water quality was within normal levels, with no significant deviation from the reference standards.

Table 12 Results of Water Quality Monitoring

Site	Date	-	Temp. (°C)	Salinity	pH	DO (mg/l)	SS (mg/l)	T-N (mg/l)	T-P (mg/l)	Coliforms (CFU/100ml)
PORT REITZ/ KILINDINI CREEK										
WI1	12/10/2025	S	29.0	33.40	7.85	5.32	29.6	0.7	<0.10	10.0
		B	29.10	33.60	7.85	5.28	28.8	0.5	<0.10	10.0
	17/10/2025	S	28.30	34.00	7.89	5.08	20.0	0.8	<0.10	10.0
		B	28.30	34.00	7.88	5.08	15.6	0.5	<0.10	Nil
	23/10/2025	S	28.70	32.70	7.78	6.42	22.0	1.0	<0.10	Nil
		B	28.60	32.90	7.94	6.32	19.2	0.8	<0.10	Nil
WI2	12/10/2025	S	28.20	32.40	7.90	4.95	51.2	3.0	<0.10	Nil
		B	27.80	33.50	7.88	4.86	44.4	3.3	<0.10	Nil
	17/10/2025	S	28.50	33.70	7.87	5.10	46.0	3.2	<0.10	Nil
		B	28.50	33.80	7.87	5.17	38.0	3.0	<0.10	Nil
	23/10/2025	S	28.60	32.60	7.97	6.66	40.0	3.2	<0.10	Nil
		B	28.60	32.70	7.99	6.52	36.4	3.0	<0.10	Nil
WI3	12/10/2025	S	27.0	33.0	8.01	5.58	20.0	150.0	<0.10	40
		B	26.80	33.0	8.02	5.52	15.6	120.0	0.1	20
	17/10/2025	S	27.20	32.80	7.98	5.41	40.8	2.5	<0.10	10
		B	27.00	32.90	7.97	5.19	24.0	2.0	<0.10	10
	23/10/2025	S	28.20	32.30	8.06	6.61	40.0	3.4	<0.10	Nil
		B	28.20	32.20	8.11	6.64	27.6	2.8	<0.10	Nil
WI4	12/10/2025	S	26.90	33.0	8.04	5.77	51.2	0.9	0.1	Nil
		B	26.80	33.0	8.01	5.56	48.0	0.7	<0.10	Nil
	17/10/2025	S	27.20	33.10	8.01	5.51	49.6	1.0	<0.10	Nil
		B	27.00	33.10	8.02	5.63	40.0	0.8	<0.10	Nil
	23/10/2025	S	28.20	32.00	8.08	6.54	43.2	1.2	<0.10	Nil
		B	28.20	32.30	8.12	6.20	44.4	1.0	<0.10	Nil
WI5	12/10/2025	S	26.50	32.80	8.07	5.98	10.0	0.1	<0.10	Nil
		B	26.30	32.90	8.07	5.72	8.4	0.2	<0.10	Nil
	17/10/2025	S	26.80	32.90	8.06	5.77	13.6	0.0	<0.10	Nil
		B	26.50	33.00	8.05	5.61	11.2	0.1	<0.10	Nil
	23/10/2025	S	27.50	31.70	8.28	6.70	12.0	0.0	<0.10	Nil
		B	27.20	32.10	8.15	5.99	10.0	0.0	<0.10	Nil

Table 12 Results of Water Quality Monitoring

Site	Date	-	Temp. (°C)	Salinity	pH	DO (mg/l)	SS (mg/l)	T-N (mg/l)	T-P (mg/l)	Coliforms (CFU/100ml)
TUDOR CREEK										
WI6	12/10/2025	B	26.50	32.90	8.04	5.74	20.0	1.3	<0.10	Nil
		S	26.60	33.00	8.04	5.64	16.4	1.0	<0.10	Nil
	17/10/2025	S	27.00	33.0	8.10	5.71	22.0	1.1	<0.10	Nil
		B	26.80	33.0	8.09	5.75	19.2	1.4	<0.10	Nil
	23/10/2025	S	27.20	33.10	8.04	5.43	24.0	0.9	<0.10	Nil
		B	27.50	33.10	8.02	5.33	21.6	1.6	<0.10	Nil
WI7	12/10/2025	S	26.60	32.70	8.04	5.52	12.0	1.1	0.1	10.0
		B	26.60	32.90	8.03	5.54	14.8	0.7	<0.10	10.0
	17/10/2025	S	27.70	33.20	8.03	5.27	16.8	0.8	<0.10	10.0
		B	27.40	33.20	8.02	5.23	20.4	1.2	<0.10	10.0
	23/10/2025	S	27.20	33.20	7.97	5.01	20.0	0.6	<0.10	Nil
		B	27.50	33.30	7.98	5.04	20.0	1.0	<0.10	Nil
WI8	12/10/2025	S	27.30	32.30	7.93	4.93	48.0	1.0	<0.10	Nil
		B	27.20	33.20	7.90	4.90	25.6	0.6	<0.10	10.0
	17/10/2025	S	28.20	33.60	7.94	5.71	49.2	1.1	<0.10	10.0
		B	28.20	33.70	7.92	5.36	28.8	0.9	<0.10	10.0
	23/10/2025	S	28.40	33.80	7.85	4.55	44.4	1.2	<0.10	10.0
		B	28.40	33.80	7.85	4.54	29.2	0.6	<0.10	10.0
INNER REEF										
WIR1	12/10/2025	S	26.20	30.90	8.10	5.90	44.4	0.4	<0.10	10.0
		B	26.20	30.90	8.10	5.84	40.0	0.2	<0.10	10.0
	17/10/2025	S	26.50	32.80	8.13	6.55	33.6	0.6	<0.10	10.0
		B	26.50	32.90	8.13	6.65	30.0	0.5	<0.10	Nil
	23/10/2025	S	26.80	32.60	7.98	5.53	28.0	0.9	<0.10	Nil
		B	-	-	-	-	-	-	-	-
WIR2	12/10/2025	S	25.90	31.10	8.09	5.99	18.8	0.7	<0.10	Nil
		B	25.90	31.10	8.09	5.91	20.0	0.5	<0.10	Nil
	17/10/2025	S	26.70	32.80	8.18	7.39	29.6	0.5	<0.10	Nil
		B	26.70	32.90	8.18	7.60	27.2	0.3	<0.10	Nil
	23/10/2025	S	26.90	32.90	8.09	5.58	30.0	0.3	<0.10	Nil
		B	27.0	32.90	8.06	5.60	29.2	0.0	<0.10	Nil

Table 12 Results of Water Quality Monitoring

Site	Date	-	Temp. (°C)	Salinity	pH	DO (mg/l)	SS (mg/l)	T-N (mg/l)	T-P (mg/l)	Coliforms (CFU/100ml)
WIR3	12/10/2025	S	25.70	31.0	8.06	6.05	24.0	0.3	<0.10	Nil
		B	25.70	31.0	8,06	6.01	26.8	0.5	<0.10	Nil
	17/10/2025	S	27.00	32.90	8.21	7.39	16.0	0.2	<0.10	Nil
		B	27.00	33.00	8.21	7.51	22..0	0.4	<0.10	Nil
	23/10/2025	S	28.0	33.0	8.34	7.25	17.6	0.4	<0.10	Nil
		B	-	-	-	-	-	-	-	-
WIR4	12/10/2025	S	25.80	30.50	8.04	6.02	20.0	0.4	<0.10	Nil
		B	25.80	30.50	8.04	5.99	14.8	0.2	<0.10	Nil
	17/10/2025	S	27.40	32.90	8.21	7.10	24.0	0.2	<0.10	Nil
		B	27.40	32.90	8.21	7.29	19.2	0.1	<0.10	Nil
	23/10/2025	S	27.0	33.0	8.26	7.19	26.0	0.1	<0.10	Nil
		B	-	-	-	-	-	-	-	-
OUTER REEF										
WOR3	12/10/2025	S	26.30	31.70	8.25	7.00	11.2	0.4	<0.10	Nil
		B	26.30	31.60	8.25	6.95	15.6	0.7	<0.10	Nil
	17/10/2025	S	28.80	31.80	8.19	6.92	10.6	0.5	<0.10	Nil
		B	26.40	31.80	8.21	6.60	21.6	0.6	<0.10	Nil
	23/10/2025	S	27.50	31.70	8.18	6.97	11.2	0.3	<0.10	Nil
		B	27.20	32.10	8.22	6.47	16.4	0.8	<0.10	Nil
WOR4	12/10/2025	S	25.80	30.19	8.21	7.10	19.6	0.5	<0.10	Nil
		B	26.10	30.20	8.23	7.06	29.2	0.3	<0.10	Nil
	17/10/2025	S	26.90	31.90	8.20	6.88	24.8	0.4	<0.10	Nil
		B	26.50	31.80	8.21	6.70	27.2	0.3	<0.10	Nil
	23/10/2025	S	27.10	31.70	8.20	7.00	26.0	0.2	<0.10	Nil
		B	26.40	31.90	8.22	6.03	28.8	0.5	<0.10	Nil
WOR5	12/10/2025	S	26.60	31.60	8.22	7.01	8.0	0.6	0.5	20
		B	26.70	31.60	8.23	7.04	16.4	0.4	0.3	Nil
	17/10/2025	S	26.60	31.0	8.20	7.07	10.0	0.9	0.2	10.0
		B	26.50	31.80	8.21	6.22	6.0	0.7	0.1	10.0
	23/10/2025	S	27.10	31.90	8.85	6.86	13.9	0.8	0.1	10
		B	26.40	31.90	8.02	6.92	9.2	0.5	<0.10	Nil

Table 12 Results of Water Quality Monitoring

Site	Date	-	Temp. (°C)	Salinity	pH	DO (mg/l)	SS (mg/l)	T-N (mg/l)	T-P (mg/l)	Coliforms (CFU/100ml)
WOR6	12/10/2025	S	25.90	31.30	8.24	7.10	12.0	0.1	<0.10	Nil
		B	25.80	31.40	8.24	7.06	8.0	0.1	<0.10	Nil
	17/10/2025	S	26.50	31.40	8.19	7.40	11.2	0.3	<0.10	Nil
		B	26.50	31.80	8.22	6.76	7.6	0.0	<0.10	Nil
	23/10/2025	S	26.90	31.70	8.20	6.75	12.0	0.1	<0.10	Nil
		B	26.40	31.80	8.23	6.58	8.0	0.0	<0.10	Nil
WOR7	12/10/2025	S	26.10	31.20	8.21	7.1	15.6	0.9	<0.10	Nil
		B	26.20	31.30	8.21	7.02	20.0	0.6	<0.10	Nil
	17/10/2025	S	26.60	31.60	8.23	7.1	12.0	1.0	<0.10	Nil
		B	26.50	31.80	8.23	6.96	16.4	0.8	<0.10	Nil
	23/10/2025	S	26.90	31.70	8.37	6.94	15.6	1.1	<0.10	Nil
		B	25.70	31.60	8.29	6.31	16.0	1.0	<0.10	Nil

4.3. CORAL

4.3.1. Objective

Coral monitoring was conducted to confirm whether dredging and disposal activities caused any adverse impacts on corals.

4.3.2. Method

Table 13 outlines the method of coral monitoring. Figure 3 shows the coral monitoring sites.

Table 13 Method of Coral Monitoring	
Parameters	Hard coral coverage, algae coverage, bleaching, sedimentation, Abundance of *Drupella* spp. and *Acanthaster planci*, coral health (e.g., discoloration, mucus secretion, disease)
Method	Quadrat survey (10 x 10 m and 1 x 1 m)
Frequency	Once every 2 weeks during dredging works
Location	Inner reef: 2 sites (C1-C2) Outer reef: 2 sites (C3-C4)
Reference standard	Dredging/disposal method will be reconsidered in case adverse impacts on corals (e.g., reduction of coral coverage, significant bleaching, excessive mucus secretion, sedimentation) are observed through the monitoring.

Figure 3 Coral monitoring sites

4.3.3. Results and Discussion

Table 14 and Table 15 show the results of coral monitoring.

Coral monitoring results show that so far, there are no observable impacts on corals at the 4 monitoring sites. Collected empirical datasets and pictorial observations support this.

Table 14 Results of Coral Monitoring										
Site	**Date**	**Hard coral cover (%)**	**Algae cover (%)**	**Bleaching (%)**	***Drupella* sp. (Y/N)**	***Acanthaster planci* (Y/N)**	**Discoloration (Y/N)**	**Mucus secretion (N/L/M/H)**	**Disease (N/L/M/H)**	**Sédimentation (N/L/M/H)**
C1	Baseline 2025/06/25	8%	50%	0%	N	N	N	N (0%)	L	L (6.25%)
	Monitoring 2025/10/25	7.5%	58%	0%	N	N	N	N(0%)	L (9%)	L (5%)
C2	Baseline 2025/06/25	8%	41%	5%	N	N	N	N	L	L (5%)
	Monitoring 2025/10/25	8%	53%	0%	N	N	N	N	L (6%)	L (9%)
C3	Baseline 2025/06/24	21%	51%	0%	N	N	N	N	N	L (5%)
	Monitoring 2025/10/24	17%	73%	0%	N	N	Y (5%)	N	L (5%)	L (5%)
C4	Baseline 2025/06/24	27%	36	0%	N	N	N	N	N	N
	Monitoring 2025/10/24	26%	63%	0%	N	N	N	L (5%)	L (5%)	L (5%)

N: None, L: Low, M: Medium, H: High

Table 15 Photos of Coral Monitoring

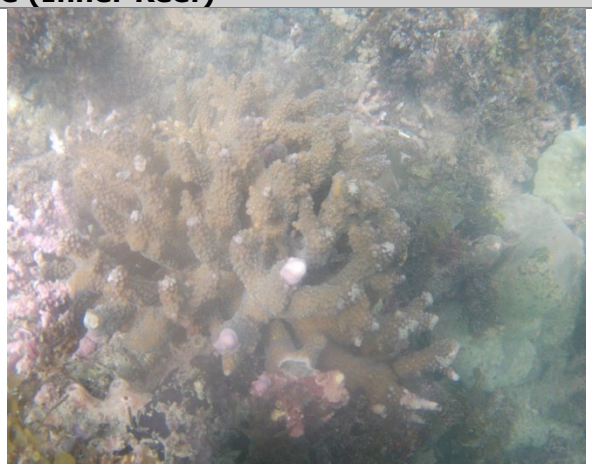
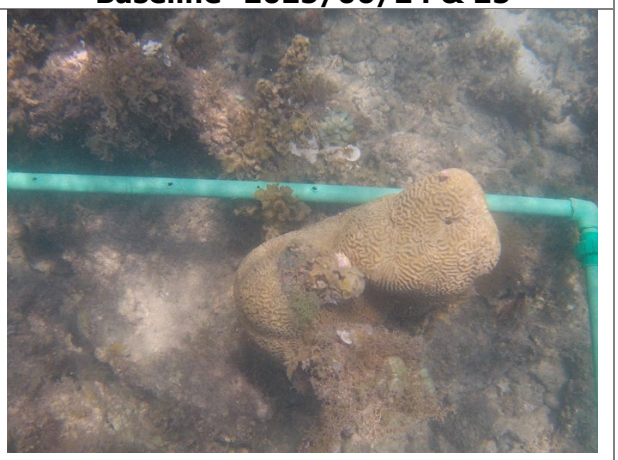
C1 – Coral Carden (Inner Reef)

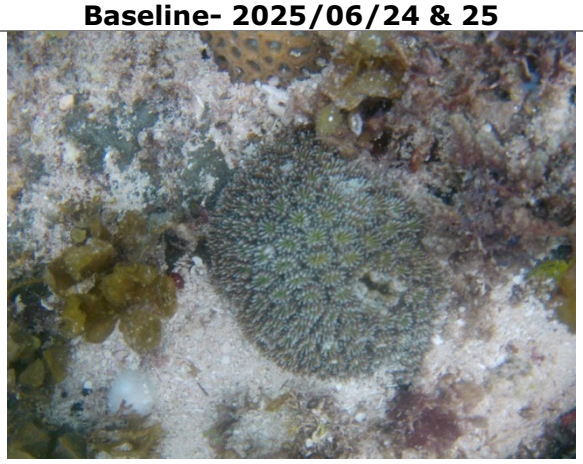
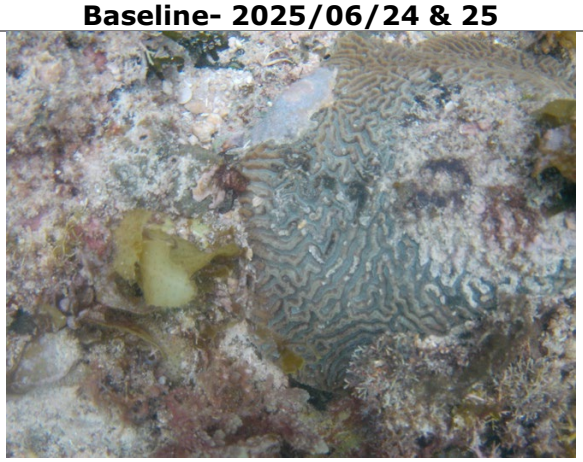
Baseline- 2025/06/24 & 25

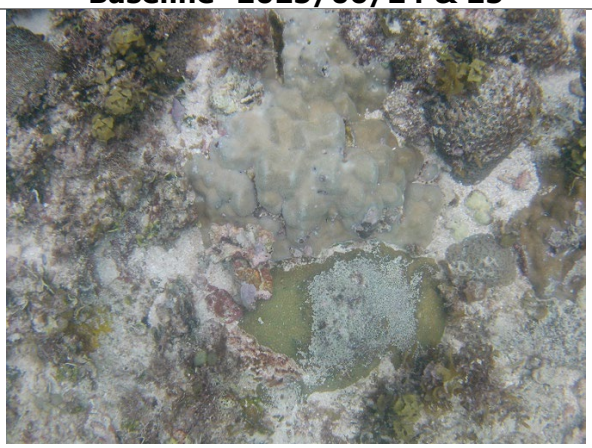
Baseline- 2025/06/24 & 25

Monitoring - 2025/10/24 & 25

Monitoring - 2025/10/24 & 25

C2 Marine Reserve (Inner Reef)	
	
Baseline- 2025/06/24 & 25	**Baseline- 2025/06/24 & 25**
	
Monitoring - 2025/10/24 & 25	**Monitoring - 2025/10/24 & 25**

C3 Shelly Beach (Outer Reef)	
	
Baseline- 2025/06/24 & 25	**Baseline- 2025/06/24 & 25**
	
Monitoring - 2025/10/24 & 25	**Monitoring - 2025/10/24 & 25**

C4 Shika Adabu (Outer Reef)	
	
Baseline- 2025/06/24 & 25	**Baseline- 2025/06/24 & 25**
	
Monitoring - 2025/10/24 & 25	**Monitoring - 2025/10/24 & 25**

4.4. SEAGRASS

4.4.1. Objective

Seagrass monitoring was conducted to confirm whether dredging and disposal activities have caused any adverse impacts on seagrass.

4.4.2. Method

Table 16 outlines the method of seagrass monitoring. Figure 4 shows the seagrass monitoring sites.

Table 16 Method of Seagrass Monitoring	
Parameters	Seagrass coverage, algae coverage, sedimentation
Method	Quadrat survey (10 x 10 m and 1 x 1 m)
Frequency	Once every 2 weeks during dredging works
Location	Inner reef: 4 sites (S1-S4)
Reference standard	Dredging disposal method shall be reconsidered in case adverse impacts on seagrass (e.g., reduction of seagrass coverage, sedimentation) are observed through the monitoring.

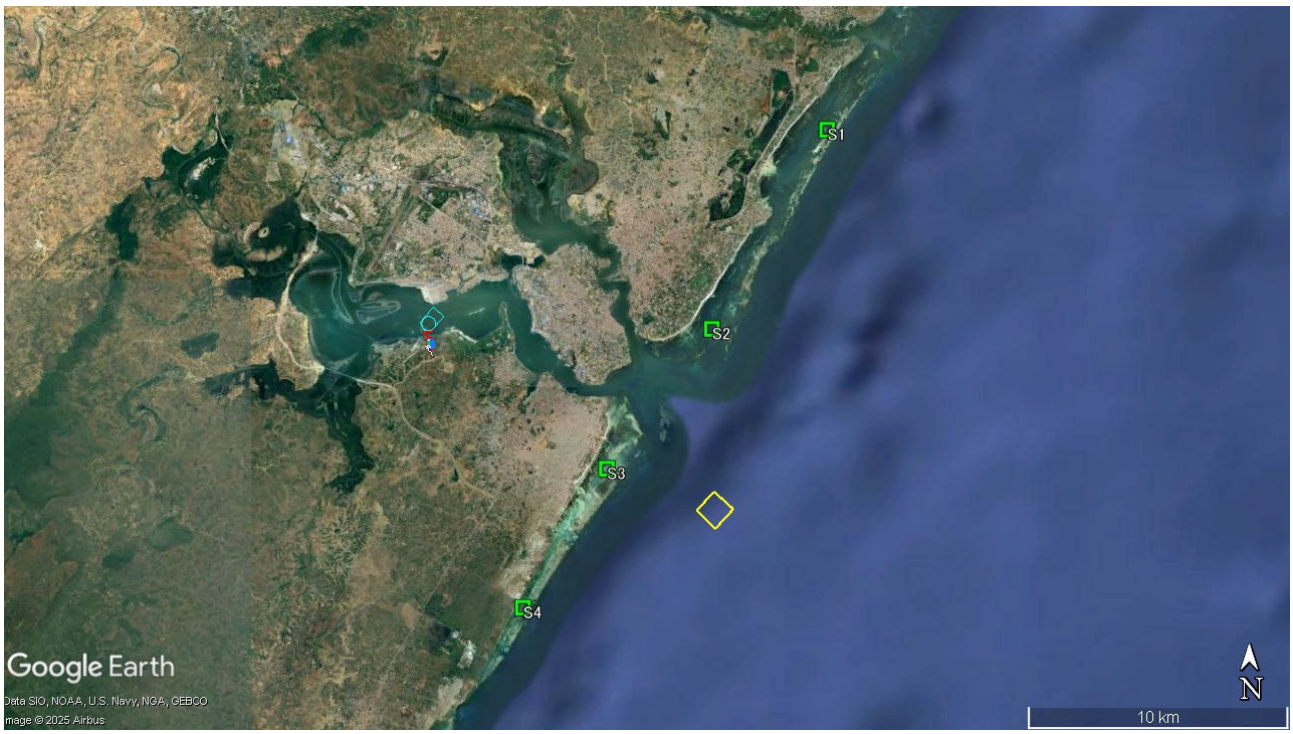


Figure 4 Seagrass monitoring sites

4.4.3. Results and Discussion

Table 17 and Table 18 show the results of seagrass monitoring.

Seagrass monitoring results show that so far, there are no observable impacts on seagrass beds at the 4 monitoring sites. Collected empirical datasets and pictorial observations support this.

Table 17 Results of Seagrass Monitoring

Site	Date	Seagrass cover (%)	Algae cover (%)	Sédimentation (Visual) (N/L/M/H)
S1 (CG)	**Baseline June 23 – 27, 2025**	TC = 100	0	N
	Monitoring 2025/10/24	TC = 100	0	N
S2 (MR)	**Baseline June 23 – 27, 2025**	TC = 90	0	N
	Monitoring 2025/10/24	TC = 80	0	N
S3 (SB)	**Baseline June 23 – 27, 2025**	TH = 70	5	L
	Monitoring 2025/10/25	TH = 50	5	L
S4 (CFG)	**Baseline June 23 – 27, 2025**	TC = 90	0	N
	Monitoring 2025/10/25	TC = 100	0	N

N: None, L: Low, M: Medium, H: High

TC - *Thalassodendron ciliatum*

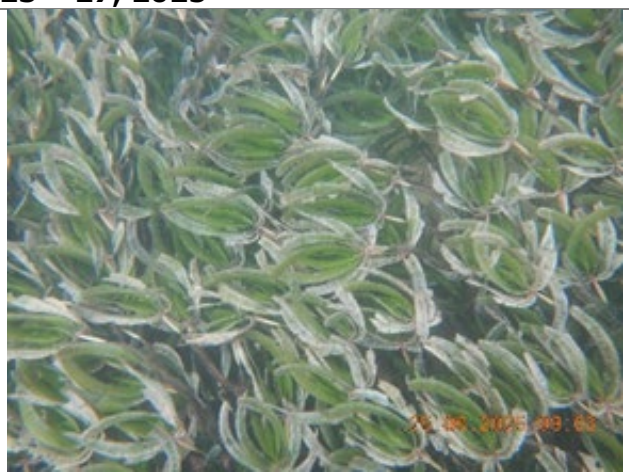
TH - *Thalassia hemprichii*

Table 18 Photos of Seagrass Monitoring

S1 Coral Garden (CG)

Baseline June 23 – 27, 2025

(10 x 10m)



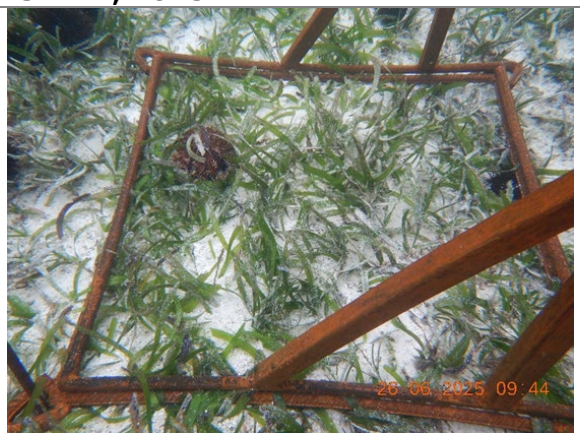
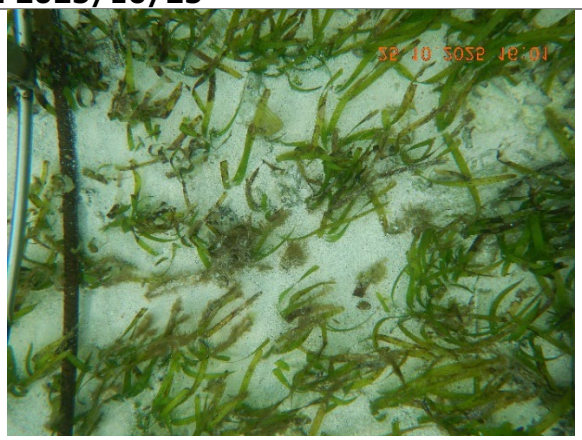
(1 x 1 m)

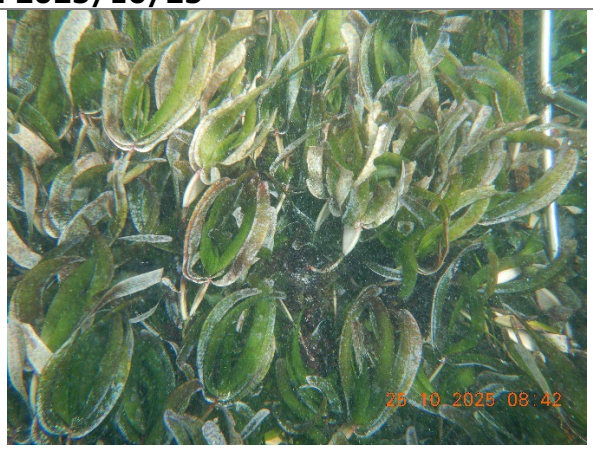
Monitoring on 2025/10/24

(10 x 10m)

(1 x 1 m)

S2 Marine Reserve (MR)	
Baseline June 23 – 27, 2025	
 **(10 x 10m)**	 **(1 x 1 m)**
Monitoring on 2025/10/24	
 **(10 x 10m)**	 **(1 x 1 m)**

S3 (Shelly Beach SB)	
Baseline June 23 – 27, 2025	
	
(10 X 10m)	**(1 x 1 m)**
Monitoring on 2025/10/25	
	
(10 X 10m)	**(1 x 1 m)**

S4Calcium Fishing Ground (CFG)	
Baseline June 23 – 27, 2025	
	
(10 X 10m)	**(1 x 1 m)**
Monitoring on 2025/10/25	
	
(10 10m)	**(1 x 1 m)**

5. WASTE MANAGEMENT

Table 19 shows the record of waste management.

Table 19 **Record of Waste Management**

	Waste type		**Waste source**	**Waste volume**	**Waste destination**
Solid waste	Hazardous	Nil	Nil	Nil	Nil
	Non-hazardous	○ Food ○ Paper ○ Plastic ○ sanitary	○ Temporary yard ○ SL & MH Offices	160kg	Incineration
Liquid waste	Hazardous	Nil	Nil	Nil	Nil
	Non-hazardous	Nil	Nil	Nil	Nil

6. PUBLIC AWARENESS

To inform and sensitize the public about the upcoming construction works, numerous stakeholder meetings were held in August 2025 with local administrators and community members. However, no notable public awareness activities were undertaken during October.

7. HERITAGE

There were no reported cultural and heritage chance finds in October.

8. GRIEVANCES

Table 20 Grievances recorded in October

Table 20 Grievances recorded in October			
Date	**Complainant**	**Description of Grievance**	**Actions Taken**
Oct 2025	Community	Lack of employment opportunities for locals	A community-based committee was constituted by DCC to handle employment-related requests and grievances.