n. Annex II Attachment 14-6

Environmental Monitoring Form
North-South Commuter Railway (Malolos – Tutuban) Project

1. General Information

a. Environmental Monitoring Results: 2nd Quarter of 2025

b. Date of Preparing This form: 15 July 2025

c. Person Preparing This form: Environmental Consideration Unit
Department/Organizations: North-South Commuter Railway (Malolos – Tutuban) Project

2. Monitoring Results - Construction Phase

(1) Impact on Land

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
1	Soil contamination due to oil and lubricant spill	Oil spill	Ocular inspection	Weekly, immediately after spills	All construction sites (Malolos,Guiguinto, Balagtas, Bocaue, Marilao, Meycauayan and Valenzuela City)	N.A.	**Meycauayan** - No Oil spill observed **Malanday Depot** - No Oil spill observed **Malolos** - *PR7-98* Estimated 2 Liters of Lube Oil from compactor equipment dripped, affecting approximately 1 m^2 area of soil within the alignment. - *PR7-15* Fuel Spill was observed on the ground under the Generator set. - *PR7-09*. Oil Spill was observed under a stand-by heavy equipment parked in the alignment. Estimated volume of spilled oil is less than 1 liter of Lubricant Oil affecting less than .5 sqm of soil.	11 April 2025 11 April 2025 08 April 2025

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
							Bocaue - No Oil Spill observed	24 April 2025
							Marilao - *PR4-22* An oil spill, approximately affect area of less than 0.5 sqm likely from a nearby vehicle, was noted near the station area	24 April 2025
							Meycauayan - PR3-100: Grease spillage/leak approx.. less than 1 sqm caused by a bicycle was observed on the ground.	16 May 2025
							Valenzuela - No oil spill observed	16 May 2025
							Balagtas - ***PR5-105*** Secondary Containment for Genset is damaged and for repairs.	21 May 2025
							Malolos - PR7-21- Genset 45. About 1 liter of Diesel fuel was spilled on the ground during refuelling even it has a secondary containment and contaminated approximately less than 1 sqm. - PR7- 25- Lubricant Oil Spill was observed suspectedly from a parked vehicle affecting less than 1 sqm of soil, approximately less than 1 liter of oil was spilled on the ground.	28 May 2025

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	**Monitoring Date**
							Malanday Depot, - A trace of spilled fuel oil was observed on a cemented floor near the generator set beside the OCC Building. - **Meycauayan** - No Oil Spill Observed **Bocaue** - No Oil Spill Observed **Marilao** - Fuel/ Diesel spill from Generator sets at PR4-41 were observed. Approximately more than 1 liter of Diesel fuel was spilled on the sand placed beside the secondary containment (drip tray) **Guiguinto** - No Oil Spill Observed **Balagtas** - No Oil Spill Observed Details of Rectification: See **Annex A**[1]	11 June 2025 13 June 2025 19 June 2025 20 June 2025 11 June 2025 25 June 2025
2.	Worker and community exposure to health and safety hazards due to working in areas with the excavation of such soils	Proper removal and disposal of excavated soil from RAMCAR battery site	Compliance to RA 9003, RA 6969 and DAO 2013-22	N.A.	RAMCAR battery site	Environmental Standard for Soil Pollution (Japan): 150 mg/kg	Excavation of contaminated soil in Meycauayan was completed. Appropriate PPE was provided to workers directly involved in the hauling	N.A.

[1] **Annex A**. Oil spills and rectification measures

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
						Dutch Standards of References Values for Soil: 85 mg/kg German Federal Soil Protection and Contaminated Site Ordinance: 200 mg/kg DAO 2013-22: <1 mg/L	of the contaminated soil. Contaminated soil was treated and disposed to a DENR-accredited TSD Facility. Certificate of Treatment was provided in previous reports.	
3.	Generation of solid waste; land and water contamination; aesthetic impacts; spread of diseases	Proper waste management and disposal	Checking compliance with RA 9003 and RA 6969	Weekly	All construction sites (Malolos, Guiguinto, Balagtas, Bocaue,Marilao,Meycauayan and Valenzuela City)	N.A.	**Solid Waste Management** 1. Appropriate waste bins with covers are provided in active construction sites. 2. Color-coded waste bins are properly labeled recyclables (red), non-recyclables/residuals (blue), biodegradables (green), and special waste, household healthcare waste (yellow). 3. The recyclables were segregated from residuals. The residual waste is being collected by the LGUs and some private haulers and disposed of at the disposal facility. 4. Recoverable waste materials are recycled and reused on site. Non-recyclable scrap materials will be disposed of at junk shops. 5. In accordance with Health Safety, disposal masks/ gloves and tissues are directly stored and disposed of in a separate waste bag/bin (yellow). 6. Food wastes from workers' meals were discouraged	**Solid Waste Management Monitoring:** CP01: 11 April 2025 24 April 2025 21 May 2025 28 May 2025 11 June 2025 13 June 2025 19 June 2025 20 June 2025 CP02: 08 April 2025 24 April 2025 21 May 2025 28 May 2025 11 June 2025 25 June 2025

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	**Monitoring Date**
							from being disposed of at the site and suggested to take it home as animal/ pet food consumption or plant fertilizer. - **Solid Waste Generated: 758.212** tons/quarter - **Recyclable:** 199.18 tons/quarter - **Biodegradable:** 10.0 tons/quarter - **Residual:** 549.032 tons/quarter For the result of solid waste management inspections, please see **Annex B**. **Hazardous Waste Management** 1. The hazardous waste is stored in separate containers according to its classification and is labeled. 2. Hazardous waste is stored in bunded areas or with secondary containment to avoid direct spillage to the ground. 3. These wastes are temporarily stored at a temporary storage facility. An accredited TSD facility is employed for the proper disposal of the hazardous waste generated on-site. Hazardous Waste Generated for the Quarter: - **Mercury and Mercury Compounds:** 0.00 ton	**Hazardous Waste Management Monitoring:** 02 April 2025 15 April 2025 05 May 2025 22 May 2025 28 May 2025 03 June 2025 07 April 2025 21 April 2025 03 May 202 14 May 2025 13 June 2025 18 June 2025 28 June 2025 02 April 2025 05 April 2025 11 April 2025 15 April 202

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	**Monitoring Date**
							- **Lead Compounds**: 0.0605 ton - **Used Industrial Oil, including sludge:** 0.1645 ton - **Oil Contaminated materials:** 0.33 ton - **Containers previously cont. toxic chemicals:** 0.087 - **Waste Electrical and Electronic Equipment:** 0.01 ton - **Pathological Waste:** 0.0 ton - **Solvent Based:** 0.899 ton For the result of hazardous waste storage facility inspections, please see **Annex C** **Grey water disposal and treatment** Provision of septic tanks, sanitation facilities and portable toilets are available within construction areas. Liquid wastes (i.e., grey water from portalets) are siphoned regularly twice a week by a licensed sewage treater service (Soliman, Ezkleen, and Envirokonsult). Grey water from kitchen sinks, clean water from washing go through a grease trap before discharge to local drainages See **Annex D and E**[2]	30 April 2025 30 April 2025 05 May 2025 14 May 2025 20 May 2025 23 May 2025 26 May 2025 06 June 2025 07 June 2025 09 June 2025 14 June 2025
4.	Ground subsidence	Level of ground subsidence	Measurement of level	Monthly	Valenzuela Depot	N.A.	N.A.	N.A.
5.	Removal of Narra trees along with alignment form Caloocan to Tutuban and at Valenzuela depot, and other trees.	1. Number of trees cut 2. Number of trees replaced	Ocular inspection	N.A.	Designated tree planting site and/or reforestation area designated by DENR-EMB National Capital Region (NCR)	85-90% survival rate of trees planted as prescribed by the LGU	1. No. of trees cut/earth-balled: 2,460 2. No. of trees replaced: 3,282 3. Replacement Seedlings 3.1. CP01 3.1.1 Replacement seedlings	N.A.

[2] **Annex D** and **E** present some measures implemented on-site to mitigate possible impact on the environment.

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
		3. The survival rate of species introduced 4. Provision of the corresponding number of tree seedlings					- 71,000 seedlings in Mt. Balagbag (84.5 ha) - 18,500 seedlings in Mt Balagbag (16.65 ha) - 8,000 seedlings in La Mesa Watershed (20 ha) - 300 bamboo seedlings handed over to Meycauayan LGU 3.1.2 Transplanted Trees in NFA Compound, Malanday, Depot - One of the two transplanted trees survived. 3.2. CP02 3.2.1 Replacement seedlings - 33,650 seedlings in Mt. Balagbag (52.8 ha)* - 4,000 seedlings in Mt. Balagbag (4.0 ha)* - 4,700 seedlings in Mt. Balagbag (4.0 ha) Note: *Protection and maintenance already done in 2021. Note: Protection and maintenance activities for the planted seedlings were completed in 2022. DENR-NCR and DENR-Region 3, through CENRO Guiguinto, issued a Certificate of Completion for the Planting and Maintenance Activities. Copy of Certificate of Completion annexed in the 4th quarter 2023 report. 4. Survival Rate of Planted Seedlings: Mt. Balagbag (NCR) – 85.72% La Mesa Watershed (NCR) – 96.81% Mt. Balagbag (R3): Kupang – 87.8%; Batino – 89.4%; Guyabano – 88.5%	

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
5	Loss of small swampy area used for migratory and resident birds due to development of depot	Seasonal bird count	Ocular Survey	Annually	Adjacent offset wetland of Valenzuela depot	N.A.	No Bird count has been conducted yet in the offset wetland. The Memorandum of Agreement between DOTr and DENR-National Capital Region (NCR), and Work and Financial Plan (WFP) for the conservation of Tanza Marine Tree Park (TMTP), as part of the NSCR offset wetland management project, was signed and Notarized. The documentary requirements for the Disbursement of Fund were requested to DENR-NCR on 15 September 2023. On 30 November 2023, a response letter was received from DENR-NCR, which raised concerns on the current land classification of the TMTP (may not be compliant with the MOA). On 12 January 2024, DOTr and DENR-NCR conducted an online meeting to discuss the issues and concerns on the proposed site. In July 2024, DOTr sent a letter to DENR requesting a recommendation for new offset wetland site. On 06 November 2024, DENR presented La Mesa Watershed as an alternative offset wetland site. 28 May 2025 - a letter was sent to DENR-NCR to follow up	N.A.

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
							recommendation for a new off-site wetland to compensate for the affected wetland in Malanday, Valenzuela City. 30 July 2025 - Coordination meeting with DENR-NCR held to discuss the options and mechanisms implementation of offset wetland project. - Proposed site: La Mesa Watershed, Quezon City - Option 1: DOTr will be fund manager and lead in the implementation of work and financial plan (WFP) - Option 2: DOTr will engage an NGO to implement the WFP	

(2) Impact on Water

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase (2013)	Pre-construction Phase (2019)	Result (Annex F)[3]	Monitoring Date
1	Increase in suspended solid of receiving water/ pollution of receiving water bodies	1. pH 2. DO 3. Oil & Grease 4. BOD 5. Fecal 6. TSS	Water sampling (DAO 34-1990), DENR-EMB Manual for Ambient Water Quality Monitoring Volume I (2008), and Water Quality Guidelines and General Effluent Standards of (DAO 2016-08)	Quarterly	1. Guiguinto River 14.830339 N; 120.878609 E	For Class "C" freshwater[4]: 1. pH: 6.5 to 9.0 2. DO: 5.0 mg/L 3. Oil & Grease: 2.0 mg/L 4. BOD: 7.0 mg/L 5. Fecal Coliform: 200 MPN/100mL 6. TSS: 80 mg/L	Guiguinto River 1. pH: 8.8 2. DO: 2.3 mg/L 3. Oil & Grease: 0.8 mg/L 4. BOD: 12 mg/L 5. Fecal Coliform: 44 MPN/100mL 6. TSS: N.A.	Guiguinto River 1. pH: 7.43 2. DO: ND 3. Oil & Grease: ND 4. BOD: 3.26 mg/L 5. Fecal Coliform: $4.9x10^3$ MPN/100mL 6. TSS: 8.6 mg/L	Guiguinto River:[5] 1. pH: 7.07 2. DO: 0.21 mg/L 3. Oil & Grease: 3.66 mg/L 4. BOD: 10.6 mg/L 5. Fecal Coliform: 92,000 MPN/100mL 6. TSS: 36.7 mg/L	Guiguinto River: 13 May 2025
					2. Santol (Balagtas) River 14.818506 N; 120.913071 E		Santol (Balagtas) River 1. pH: 7.6 2. DO: 4.5 mg/L 3. Oil & Grease: 0.6 mg/L 4. BOD: 2 mg/L 5. Fecal Coliform: $1.3x10^4$ MPN/100mL 6. TSS: 8.8 mg/L	Santol (Balagtas) River 1. pH: 7.63 2. DO: 2.39 mg/L 3. Oil & Grease: ND 4. BOD: 8.01 mg/L 5. Fecal Coliform: $3.5x10^3$ MPN/100mL 6. TSS: 26.3 mg/L	Santol (Balagtas) River:[5] 1. pH: 7.08 2. DO: 0.45 mg/L 3. Oil & Grease: 2.77 mg/L 4. BOD: 11.2 mg/L 5. Fecal Coliform: 160,000 MPN/100 mL 6. TSS: 35.0 mg/L	Santol(Balagtas) River: 13 May 2025
					3. Bocaue River		Bocaue River: 1. pH: 7.9	Bocaue River: 1. pH: 7.4	Bocaue River:[6] 1. pH: 6.5	Bocaue River: 08 May

[3] **Annex D** and **E** presents some measures implemented on-site to mitigate possible impact on water quality. **Annex F** present the result of water quality monitoring

[4] DAO 2016-08: Water Quality Guidelines and Effluent Standards of 2016

[5] The water quality monitoring results in Guiguinto and Balagtas Rivers showed exceedances in several physical and biological parameters (i.e. did not meet regulatory limits). Elevated levels of bacterial indicators suggest organic pollution, likely due to community activities and discharges from nearby industrial and residential areas. These findings are consistent with historical baseline data that also reflected similar exceedances. During the monitoring period, no construction activities related to the project were conducted near the Guiguinto or Balagtas Rivers. The only potential impact on Guiguinto River was from vehicular and heavy equipment traffic on temporary bridge crossings. No project-related influence was observed on Balagtas River. To address potential contributions to water quality degradation, the project implemented the following mitigation measures: Regular maintenance of drainage canals near the river systems; Support to LGU-led river clean-up activities; and, Mechanical and manual removal of water hyacinths from Guiguinto River as part of SMCC's corporate social responsibility initiatives.
These efforts demonstrate the project's commitment to environmental management and community collaboration despite the observed water quality exceedances.

[6] Water samples from Bocaue, Marilao and Meycauayan Rivers and ACA Creek showed exceedances in BOD_5, Total Suspended Solids (TSS), and fecal coliform levels across all stations, breaching the standards for Class C waters. Oil and grease levels also exceeded limits at ACA Creek. All stations recorded dissolved oxygen (DO) levels below minimum requirements. Primary causes of these exceedances include: Organic and inorganic pollution from surrounding residential and industrial discharges; Low DO likely due to nutrient-rich wastewater, biological activity, and decaying matter; High BOD_5 caused by organic waste decomposition, reducing oxygen in water; and, TSS from suspended solids in domestic wastewater. Visible indicators included dark water coloration, sludge accumulation, sewage odors, and floating garbage, further supporting the presence of untreated waste. The exceedances appear to be caused primarily by community, residential, and industrial sources, not the NSCR Project. The project has, in fact, implemented mitigation measures such as drainage maintenance and participation in LGU clean-ups to help minimize further environmental impact. **Annex D** and **E** present some measures implemented on-site to mitigate possible impact on the environment.

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase (2013)	Pre-construction Phase (2019)	Result (Annex F)[3]	Monitoring Date
					14.80575 N; 120.9268 E		2. DO: 8.2 mg/L 3. Oil & Grease: 0.7 mg/L 4. BOD: 4 mg/L 5. Fecal Coliform: $3.5x10^4$ MPN/100mL 6. TSS: 44 mg/L	2. DO: 7.2 mg/L 3. Oil & Grease: 3 mg/L 4. BOD: 12 mg/L 5. Fecal Coliform: $3.3x10^4$ MPN/100mL 6. TSS: 46 mg/L	2. DO: 2.5 mg/L 3. Oil & Grease: 2 mg/L 4. BOD: 163 mg/L 5. Fecal Coliform: 700,000 MPN/100mL 6. TSS: <2 mg/L	2025
					4. Marilao River 14.76135 N; 120.9507 E		Marilao River: 1. pH: 7.8 2. DO: 7.1 mg/L 3. Oil & Grease: 0.8 mg/L 4. BOD: 8 mg/L 5. Fecal Coliform: $3.5x10^4$ MPN/100mL 6. TSS: 36 mg/L	Marilao River: 1. pH: 7.6 2. DO: 7 mg/L 3. Oil & Grease: <1 mg/L 4. BOD: 18 mg/L 5. Fecal Coliform: $3.1x10^5$ MPN/100mL 6. TSS: 17 mg/L	Marilao River:[6] 1. pH: 6.5 2. DO: 1.0 mg/L 3. Oil & Grease: 2 mg/L 4. BOD: 126 mg/L 5. Fecal Coliform: 9,200,000 MPN/100mL 6. TSS: 49 mg/L	Marilao River: 07 May 2025
					5. Meycauayan River 14.73063 N; 120.9644 E		Meycauayan River: 1. pH: 7.4 2. DO: <2.0 mg/L 3. Oil & Grease: 0.6 mg/L 4. BOD: 9 mg/L 5. Fecal Coliform: N.A. 6. TSS: 17 mg/L	Meycauayan River: 1. pH: 7.5 2. DO: 6.8 mg/L 3. Oil & Grease: <1 mg/L 4. BOD: 25 mg/L 5. Fecal Coliform: $1.3x10^6$ MPN/100mL 6. TSS: 33 mg/L	Meycauayan River:[6] 1. pH: 8.0 2. DO: 1.1 mg/L 3. Oil & Grease: 2 mg/L 4. BOD: 237 mg/L 5. Fecal Coliform: 920,000 MPN/100mL 6. TSS: 12 mg/L	Meycauayan River: 07 May 2025
					6. Valenzuela Depot 14.713699 N; 120.961019 E		Valenzuela Depot: 1. pH: 6.6 2. DO: <2.0 mg/L 3. Oil & Grease: 0.7 mg/L 4. BOD: 55 mg/L 5. Fecal Coliform: N.A.	Valenzuela Depot: 1. pH: 7.6 2. DO: 4.2 mg/L 3. Oil & Grease: 2 mg/L 4. BOD: 65 mg/L 5. Fecal Coliform:	Valenzuela Depot:[6] 1. pH: 6.1 2. DO: 2.4 mg/L 3. Oil & Grease: 4 mg/L 4. BOD: 134 mg/L 5. FecalColiform:	Valenzuela Depot: 08 May 2025

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase (2013)	Pre-construction Phase (2019)	Result (Annex F)[3]	Monitoring Date
							6. TSS: 9 mg/L	4.9x10^5 MPN/100mL 6. TSS: 9 mg/L	16,000,000 MPN/ mg/L 6. TSS: 29 mg/L	
					7. Tullahan River 14˚40.672'N 120˚58.315'E		Tullahan River[7] - N.A.	Tullahan River - N.A.	Tullahan River - N.A.	Tullahan River: N.A.
					8. Estero de Maypajo 14˚38.113'N 120˚58.6'E		Estero de Maypajo - N.A	Estero de Maypajo - N.A.	Estero de Maypajo - N.A.	Estero de Maypajo: N.A.

[7] Water quality monitoring was not conducted at Tullahan River, and Estero de Maypajo since Section1 of Contract Package 01 has not yet been handed over to the contractor.

(3) Impact on Air

No.	Potential Impact	Parameter	Method	Frequency	Location[8]	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[9]	Pre-construction Phase (2019)	Result[10,11] (Annex G)	Monitoring Date
1	Generation of dust and particulate matter, and gas emissions.	1. TSP 2. $PM_{2.5}$ 3. PM_{10} 4. NO_2 5. SO_2,	Clean Air Act of 1999 (RA 8749) 1. TSP: High Volume Gravimetric Method 2. $PM_{2.5}$: High Volume w/2.5-micron particle size inlet, Gravimetric 3. PM_{10}: High Volume w/10-micron particle-size inlet, Gravimetric 4. SO_2: Pararosaniline Method	Quarterly, immediately based on complaints	1. Malolos 14°51'14.53"N 120°48'50.96"E	**National Ambient Air Quality Guideline Values (NAAQGV) [12]** **24-Hr Monitoring:** 1. TSP:230 µg/Ncm 2. $PM_{2.5}$: 35 µg/Ncm[13] 3. PM_{10}: 150 µg/Ncm 4. SO_2: 180 µg/Ncm 1. NO_2: 150 µg/Ncm **National Ambient Air Quality for Source-Specific Air Pollutants from Industrial Sources / Operations** **1-Hr Monitoring:** 2. TSP:300 µg/Ncm 3. $PM_{2.5}$: N.A 4. PM_{10}:200 µg/Ncm 5. SO_2: 340 µ/Ncm 6. NO_2: 260 µ/Ncm	**24-Hr Monitoring:** Malolos (2012): 1. TSP: 95 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 61.8 µg/Ncm 4. NO_2: 3.093 µg/Ncm 5. SO_2,: <0.05 µg/Ncm 1. TSP: 585 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 91.3 µg/Ncm 4. NO_2: 2.7 µg/Ncm 5. SO_2,: <0.05 µg/Ncm	**24-Hr Monitoring:** Malolos: 1. TSP: 297 µg/Ncm 2. $PM_{2.5}$: 94.1 µg/Ncm 3. PM_{10}: 198 µg/Ncm 4. NO_2: 18.9 µg/Ncm 5. SO_2,: <25.5 µg/Ncm	**24-Hr Monitoring:** Malolos: 1. TSP: 112 µg/Ncm 2. PM_{10}: 69.6 µg/Ncm 3. $PM_{2.5}$:19.2 µg/Ncm 4. SO_2,: 1.78 µg/Ncm 5. NO_2: 21.6 µg/Ncm	**24-Hr Monitoring:** Malolos: 13 May 2025
					2. Guiguinto 14°49'31.06"N 120°54'21.05"E		Guiguinto (2013): 1. TSP: 20.20 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 26.83 µg/Ncm 4. NO_2: 8.67 µg/Ncm 5. SO_2,: 3.68 µg/Ncm	Guiguinto: 1. TSP: 188 µg/Ncm 2. $PM_{2.5}$:<47.2 µg/Ncm 3. PM_{10}: 187 µg/Ncm 4. NO_2: 11.3 µg/Ncm 5. SO_2,: <25.5 µg/Ncm	Guiguinto and Malolos Boundary: 1. TSP: 78.7 µg/Ncm 2. PM_{10}: 62.2 µg/Ncm 3. $PM_{2.5}$: 16.8 µg/Ncm 4. SO_2,: <0.273 µg/Ncm 5. NO_2: 16.3 µg/Ncm	Guiguinto and Malolos Boundary: 14 May 2025
					3. Balagtas 14°50'21.90"N 120°51'31.28"E		Balagtas: N.A.	Balagtas: 1. TSP: 271 µg/Ncm 2. $PM_{2.5}$: 67.9 µg/Ncm 3. PM_{10}: 189 µg/Ncm 4. NO_2: 19.7 µg/Ncm 5. SO_2,: 25.7 µg/Ncm	Balagtas: 1. TSP: 60.7 µg/Ncm 2. PM_{10}: 41.2 µg/Ncm 3. $PM_{2.5}$: 13.4 µg/Ncm 4. SO_2,: 2.38 µg/Ncm 5. NO_2: 24.4 µg/Ncm	Balagtas: 15 May 2025

[8] Indicates the location of the 2021 1st quarter air quality monitoring station.
[9] Source: NSCR EPRMP, March 2015
[10] Dust Mitigation measures are presented in **Annex L**.
[11] Ambient air quality monitoring was not conducted in Caloocan, Manila, Solis and Tutuban stations since Section1 of Contract Package 01 is not yet handed over to the contractor.
[12] Philippine Clean Air Act of 1999 (RA 8749)
[13] DAO 2013-13 – Establishing the Provisional NAAQGV for Particulate Matter 2.5 ($PM_{2.5}$)

No.	Potential Impact	Parameter	Method	Frequency	Location[8]	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[9]	Pre-construction Phase (2019)	Result[10,11] (Annex G)	Monitoring Date
			5. NO_2: Griess Saltzman Reaction		4. Bocaue 14°48'2"N 120°55'53"E		Bocaue (2012): 1. TSP: 133 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 67.9 µg/Ncm 4. NO_2: 2.7 µg/Ncm 5. $SO_{2,}$: <0.05 µg/Ncm 1. TSP: 145 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 104.4 µg/Ncm 4. NO_2: 2.7 µg/Ncm 5. $SO_{2,}$: <0.05 µg/Ncm	Bocaue: 1. TSP: 98.8 µg/Ncm 2. $PM_{2.5}$: 17.3 µg/Ncm 3. PM_{10}: 43.8 µg/Ncm 4. NO_2: 3.6 µg/Ncm 5. $SO_{2,}$: 1.0 µg/Ncm	Bocaue: 1. TSP: 72.17 µg/Ncm 2. PM_{10}: 12.51 µg/Ncm 3. $PM_{2.5}$: 11.02 µg/Ncm 4. $SO_{2,}$: 0.52 µg/Ncm 5. NO_2: 14.08 µg/Ncm	Bocaue: 08 May 2025
					5. Marilao 14°45'44"N 120°57'2"E		Marilao: N.A.	Marilao: 1. TSP: 55.2 µg/Ncm 2. $PM_{2.5}$: 6.1 µg/Ncm 3. PM_{10}: 47.5 µg/Ncm 4. NO_2: 4.1 µg/Ncm 5. $SO_{2,}$: 0.6 µg/Ncm	Marilao: 1. TSP: 42.80 µg/Ncm 2. PM_{10}: 25.17 µg/Ncm 3. $PM_{2.5}$: 7.15 µg/Ncm 4. $SO_{2,}$: <0.15 µg/Ncm 5. NO_2: 13.86 µg/Ncm	Marilao: 07 May 2025
					6. Meycauayan 14°44'20"N 120°57'39.32"E		Meycauayan: N.A.	Meycauayan: 1. TSP: 61.6 µg/Ncm 2. $PM_{2.5}$: 14.6 µg/Ncm 3. PM_{10}: 15 µg/Ncm 4. NO_2: 5.1 µg/Ncm 5. $SO_{2,}$: 0.8 µg/Ncm	Meycauayan: 1. TSP: 26.55 µg/Ncm 2. PM_{10}: 18.74 µg/Ncm 3. $PM_{2.5}$: 8.08 µg/Ncm 4. $SO_{2,}$: <0.15 µg/Ncm 5. NO_2: 13.35 µg/Ncm	Meycauayan: 06 May 2025
					7. Valenzuela 14˚42'51" N 120°57'39"E		Valenzuela (2013): 1. TSP: 37.52 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 49.68 µg/Ncm 4. NO_2: 10.43 µg/Ncm 5. $SO_{2,}$: 3.96 µg/Ncm	Valenzuela: 1. TSP: 27.3 µg/Ncm 2. $PM_{2.5}$: 5.3 µg/Ncm 3. PM_{10}: 12.5 µg/Ncm 4. NO_2: 4.9 µg/Ncm 5. $SO_{2,}$: 1.2 µg/Ncm	Valenzuela: 1. TSP: 34.30 µg/Ncm 2. PM_{10}: 19.31 µg/Ncm 3. $PM_{2.5}$: 8.34 µg/Ncm 4. $SO_{2,}$: 0.27 µg/Ncm 5. NO_2: 7.09 µg/Ncm	Valenzuela: 05 May 2025
					8. Caloocan 14˚39'28.3" N 120°58'26.2"E		Caloocan (2014): 1. TSP: 97.28 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 97.60 µg/Ncm 4. NO_2: 30.81 µg/Ncm 5. $SO_{2,}$: 15.53 µg/Ncm 1. TSP: 86.3 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 30.5 µg/Ncm	Caloocan – N.A.	Caloocan – N.A.	Caloocan: N.A.

No.	Potential Impact	Parameter	Method	Frequency	Location[8]	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[9]	Pre-construction Phase (2019)	Result[10,11] (Annex G)	Monitoring Date
							4. NO_2: 10.6 µg/Ncm 5. $SO_{2,}$: 0.4 µg/Ncm			
					9. Manila 14˚37'26.75" N 120°58'25.52"E		Manila – N.A.	Manila – N.A.	Manila – N.A.	Manila – N.A.
					10. Solis 14˚37'56" N 120°58'34.6"E		Solis (2014). 1. TSP: 84.6 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 30.5 µg/Ncm 4. NO_2: 10.9 µg/Ncm 5. $SO_{2,}$: 0.9 µg/Ncm	Solis – N.A.	Solis – N.A.	Solis – N.A.
					11. Tutuban 14˚36'22" N 120°58'17"E		Tutuban (2014): 1. TSP: 81.3 µg/Ncm 2. $PM_{2.5}$: N.A. 3. PM_{10}: 46.7 µg/Ncm 4. NO_2: 12.7 µg/Ncm **5.** $SO_{2,}$: 2.3 µg/Ncm	Tutuban – N.A.	Tutuban – N.A.	Tutuban – N.A.

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard[14]	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[15]	Pre-construction Phase (2019)[16]	Result (Annex H)[17]	Monitoring Date
2	Noise pollution	Noise level	Noise level meter	Monthly, immediately based on complaints	Abangan Norte Elementary School, Marilao	Class AA - Morning: 50 dB - Daytime: 55 dB - Evening: 50 dB - Nighttime: 45 dB	N.A.	- Morning: 70.1 dB - Daytime: 71.84 dB - Evening: 70.83 dB - Nighttime: 63.5 dB	- Morning: 54.5 dB - Daytime: 60.4 dB - Evening: 61.3 dB - Nighttime: 55.7 dB - Morning: 45.8 dB - Daytime: 54.3 dB - Evening: 51.9 dB - Nighttime: 46.1 dB - Morning: 49.8 dB - Daytime: 56.6 dB - Evening: 54.8 dB - Nighttime: 48.4 dB	04-05 April 2025 14-15 May 2025 05-06 June 2025
					Tabing Ilog Elementary School, Marilao	Class AA[18] - Morning: 50 dB - Daytime: 55 dB - Evening: 50 dB - Nighttime: 45 dB	N.A.	- Morning: 77.8 dB - Daytime: 78.93 dB - Evening: 76.8 dB - Nighttime: 68.42 dB	- Morning: 68.9 dB - Daytime: 70.9 dB - Evening: 70.8 dB - Nighttime: 64.2 dB - Morning: 69.5 dB - Daytime: 71.4 dB - Evening: 70.3 dB - Nighttime: 64.8 dB - Morning: 69.1 dB - Daytime: 70.3 dB - Evening: 70.1 dB - Nighttime: 65.2 dB	03-04 April 2025 14-15 May 2025 04-05 June 2025

[14] Environmental Quality Standards for Noise in General Areas (NPCC, Memorandum Circular No. 002 Series of 1980). Note: For stations which indicates "Class 3-4; Class A", Standard for 'Class 3-4 Construction activities' was adopted for Morning and Daytime, and the Standard for 'Class A General Areas' was adopted during Evening and Nighttime. Also, a corrective factor was applied for stations directly facing 2-lane and 4 or more-lane road as indicated in the NPCC MC No. 1980-002.
[15] Source: NSCR EPRMP, March 2015
[16] Based on the pre- construction phase study conducted on 2019, elevated Noise level was already higher than the standard guideline values stipulated in National Pollution Control Commission (NPCC 1980). Significant noise came from the community.
[17] **Annex H**: Noise Level Monitoring Results for 2Q 2025
[18] With Correction factor of +5 dBA applicable for areas directly facing 2-lane road

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard[14]	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[15]	Pre-construction Phase (2019)[16]	Result (Annex H)[17]	Monitoring Date
					Near St. Mary Meycauayan College	Class AA[19] - Morning: 55 dB - Daytime: 60 dB - Evening: 55 dB - Nighttime: 50 dB	N.A.	- Morning: 86.45 dB - Daytime: 86.0 dB - Evening: 87.760 dB - Nighttime: 86.90 dB	- Morning: 66.7 dB - Daytime: 68.7 dB - Evening: 68.3 dB - Nighttime: 67.9 dB	03-04 April 2025
									- Morning: 80.2 dB - Daytime: 80.0 dB - Evening: 80.5 dB - Nighttime: 79.1 dB	13-14 May 2025
									- Morning: 81.0 dB - Daytime: 80.4 dB - Evening: 82.1 dB - Nighttime: 81.0 dB	04-05 June 2025
					Front of Meycauayan College	Class AA[20] - Morning: 55 dB - Daytime: 60 dB - Evening: 55 dB - Nighttime: 50 dB	N.A.	- Morning: 86.28 dB - Daytime: 86.58 dB - Evening: 86.73 dB - Nighttime: 86.41 dB	- Morning: 81.1 dB - Daytime: 80.9 dB - Evening: 81.7 dB - Nighttime: 80.0 dB	02-03 April 2025
									- Morning: 81.7 dB - Daytime: 81.5 dB - Evening: 82.3 dB - Nighttime: 80.5 dB	13-14 May 2025
									- Morning: 80.4 dB - Daytime: 79.9 dB - Evening: 80.5 dB - Nighttime: 80.1 dB	03-04 June 2025
					Malinta Elementary School	Class AA - Morning: 45 dB - Daytime: 50 dB - Evening: 45 dB	N.A.	Inside Malinta Elementary School (Class AA): - Morning: 65.25 dB	- Morning: 56.0 dB - Daytime: 57.9 dB - Evening: 55.6 dB - Nighttime: 55.4 dB	02-03 April 2025

[19] With Correction factor of +10 dBA applicable for areas directly facing 4-lane or wider
[20] With Correction factor of +10 dBA applicable for areas directly facing 4-lane or wider

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard[14]	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[15]	Pre-construction Phase (2019)[16]	Result (Annex H)[17]	Monitoring Date
						- Nighttime: 40 dB		- Daytime: 60.88 dB - Evening: 66.85 dB - Nighttime: 61.61 dB Outside campus Malinta Elementary School - Morning: 85.68 dB - Daytime: 85.53 dB - Evening: 85.3 dB - Nighttime: 85.86 dB	- Morning: 58.0 dB - Daytime: 65.8 dB - Evening: 58.9 dB - Nighttime: 58.3 dB - Morning: 56.7 dB - Daytime: 58.7 dB - Evening: 57.4 dB - Nighttime: 53.0 dB	15-16 May 2025 03-04 June 2025
					Holy Infant Elementary School, Malolos	Class AA[21] - Morning: 50 dB - Daytime: 55 dB - Evening: 50 dB - Nighttime: 45 dB	N.A.	- Morning: 66.62 dB - Daytime: 65.71 dB - Evening: 67.05 dB - Nighttime: 64.7 dB	- Morning: 60.6 dB - Daytime: 60.3 dB - Evening: 59.9 dB - Nighttime: 59.4 dB - Morning: 61.8 dB - Daytime: 61.7 dB - Evening: 60.5 dB - Nighttime: 58.5 dB - Morning: 61.7 dB - Daytime: 60.4 dB - Evening: 58.0 dB - Nighttime: 56.2 dB	10-11 April 2025 15-16 May 2025 09-10 June 2025

[21] Additional +5 dBA since the sampling point is located beside/facing the access road which is also connected to the T-intersection highway (4 lanes)

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[22]	Pre-construction Phase (2019)	Result (Annex I)	Monitoring Date
3	Increase in ground vibration level due to the operation of heavy equipment and machinery	Vibration level	Vibration level meter	Quarterly, immediately based on complaints	Holy Infant School, Malolos City	[23]55 VdB or 0.0056 m/s^2	N.A.	- Daytime: 0.69 mm/s or 0.00069 m/s2	Morning (0500H-0900H) - x: ND y: 22.7 VdB z: ND Daytime (0900H-1800H) - x: 35.7 VdB y: 30.5 VdB z: 34.3 VdB Evening (1800H-2200H) - x: ND y: 28.0 VdB z: 35.2 VdB Nighttime (2200H- 0500H) - x: ND y: 29.1 VdB z: 35.4 VdB	15-16 May 2025

[22] Source: NSCR EPRMP, March 2015
[23] "Technology and Laws Regulation for Pollution Control, 2000", Japan Environmental Management Association for Industry

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[22]	Pre-construction Phase (2019)	Result (Annex I)	Monitoring Date
					Abangan Norte Elementary School, Marilao	[24]55VdB or 0.0056 m/s^2	N.A.	- Morning: 53 VdB - Daytime: 63 VdB - Evening: 57 VdB - Nighttime: 56 VdB	Morning (0500H-0900H) - x: 33.5 VdB y: 35.5 VdB z: 35.0 VdB Daytime (0900H-1800H) - x: 42.5 VdB y: 44.7 VdB z: 43.3 VdB Evening (1800H-2200H) - x: 40.0 VdB y: 42.6 VdB z: 41.3 VdB Nighttime (2200H- 0500H) - x: 38.5 VdB y: 40.7 VdB z: 37.7 VdB	14-15 May 2025

[24] "Technology and Laws Regulation for Pollution Control, 2000", Japan Environmental Management Association for Industry

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[22]	Pre-construction Phase (2019)	Result (Annex I)	Monitoring Date
					Tabing Ilog Elementary School, Marilao	[25]55dB or 0.0056 m/s^2	N.A.	- Morning: 63 VdB - Daytime: 70 VdB - Evening: 68 VdB - Nighttime: 60VdB	Morning (0500H-0900H) - x: 44.8 VdB y: 39.0 VdB z: 47.3 VdB Daytime (0900H-1800H) - x: 59.0 VdB y: 50.8 VdB z: 61.8 VdB Evening (1800H-2200H) - x: 55.2 VdB y: 47.5 VdB z: 60.4 VdB Nighttime (2200H- 0500H) - x: 45.2 VdB y: 42.1 VdB z: 47.4 VdB	14-15 May 2025
					St. Mary College, Meycauayan		N.A.	- Morning: 72 VdB - Daytime: 76 VdB - Evening: 77 VdB - Nighttime: 78 VdB	Morning (0500H-0900H) - x: 49.2 VdB y: 39.9 VdB z: 47.4 VdB Daytime (0900H-1800H) - x: 63.9 VdB y: 56.7 VdB z: 68.2 VdB Evening (1800H-2200H) - x: 67.1 VdB y: 56.1 VdB z: 67.9 VdB	13-14 May 2025

[25] "Technology and Laws Regulation for Pollution Control, 2000", Japan Environmental Management Association for Industry

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[22]	Pre-construction Phase (2019)	Result (Annex I)	Monitoring Date
									Nighttime (2200H- 0500H) - x: 63.0 VdB y: 55.9 VdB z: 63.8 VdB	
					Meycauayan College, Calvario, Meycauayan City, Bulacan	[26]55dB or 0.0056 m/s^2	N.A.	Meycauayan College (Category 3): - Morning: 66 VdB - Daytime: 68 VdB - Evening: 70 VdB - Nighttime: 67 VdB	Morning (0500H-0900H) - x: 40.9 VdB y: 33.8 VdB z: 35.5 VdB Daytime (0900H-1800H) - x: 61.9 VdB y: 51.4 VdB z: 56.9 VdB Evening (1800H-2200H) - x: 65.9 VdB y: 53.2 VdB z: 58.1 VdB Nighttime (2200H- 0500H) - x: 53.1 VdB y: 44.9 VdB z: 50.2 VdB	13-14 May 2025
					Malinta Elementary School, Valenzuela City (Category 3)		Valenzuela: - ND	- Morning: 59 VdB - Daytime: 57 VdB - Evening: 58 VdB - Nighttime: 55 VdB	Morning (0500H-0900H) - x: 42.7 VdB y: 42.3 VdB z: 41.9 VdB Daytime (0900H-1800H) - x: 44.7 VdB	15-16 May 2025

[26] "Technology and Laws Regulation for Pollution Control, 2000", Japan Environmental Management Association for Industry

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Baseline		Latest Monitoring Result in 2nd Quarter of 2025	
							Feasibility Study Phase[22]	Pre-construction Phase (2019)	Result (Annex I)	Monitoring Date
									y: 44.3 VdB z: 43.7 VdB Evening (1800H-2200H) - x: 42.8 VdB y: 42.3 VdB z: 42.2 VdB Nighttime (2200H- 0500H) - x: 47.0 VdB y: 45.1 VdB z: 44.3 VdB	

(4) Impact on People

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
1	Traffic conditions	Traffic flow (congestion)	Ocular inspection	Weekly	A major intersection in the vicinity of constriction sites	N.A.	The traffic management plan is being implemented and monitored. Traffic management measures implemented on site are provision of cautionary signages, re-routing schemes, banksmen, traffic assessment and traffic engineering works. Traffic Management Officer is full-time designated on site. **Contract Package 01 (Area 1 & 2):** **Provision of flagmen with proper traffic gears (as of June 2025):** A. TDJV Traffic Management Team: One (1) Sr. Traffic Management Officer One (1) Traffic Management Staff B. Local Government Traffic Enforcer Assistance 1. Meycauayan Traffic and Parking Bureau has five personnel to assist in the delivery of segments 2. Marilao Traffic Sector has 5 traffic enforcers assisting with segment delivery. They are on call and can be deployed to assist and manage traffic at their AOR when needed. 3. Bocaue Traffic Division has 5 traffic personnel to assist with the delivery of pc segments.	N.A.

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	Monitoring Date
							C. Additional Traffic Flagman and Local Gov't Unit Traffic Enforcers Deployment 1. All traffic enforcers are on fixed posts in every critical intersection that the segments will pass. 2. The deployment of flagmen and traffic enforcers at the following locations is due to the mainline drainage construction and other activities that cross the public roads: a. (2- flagmen) San Isidro Church Access Road – mainline drainage activity b. (2- flagmen) Ayukit Road – Enhancement of the existing drainage c. (2- flagmen) ACA Rd – For the lifting of materials for the Malanday Station d. (1- flagman) L Gonzales St – for the vehicles and equipment that cross the road **Contract Package 02 (Area 3):** CP02 covers 3 Municipalities: Malolos, Guiguinto and Balagtas. Access roads are provided in each municipality; 17 for Malolos, 10 for Guiguinto, and 3 for Balagtas. The attached TMP provisions the placement of traffic and safety signages and deployment of flagmen in all road intersections of	

No.	Potential Impact	Parameter	Method	Frequency	Location	Standard	Latest Monitoring Result in 2nd Quarter of 2025	
							Result	**Monitoring Date**
							the transportation route. See **Annex J**	
2	Loss of old Philippine National Railway (PNR) stations	Status of old PNR stations	Ocular Inspection and Monitoring	Monthly until the preservation work of the station is completed	Malolos Station, Guiguinto Station, Bigaa (Balagtas) Station, Meycauayan Station, Polo/Valenzuela Station, and Tutuban Station	Status of Old PNR Stations	- The structures are still intact with no sign of damage and no sign of significant change on the crack monitoring and measurement of verticality results. - The vicinity of the old PNR Stations is properly maintained, vegetations were cleared, and Housekeeping in the area is accomplished regularly. - Protection fence and nets are being maintained to provide safety and security. - Measures to mitigate deterioration of the structures are carried out accordingly. See **Annex K** for the observations and findings during inspections.	**Valenzuela Old PNR Station:** 22 April 2025 27 May 2025 24 June 2025 **Meycauayan Old PNR Station:** 22 April 2025 27 May 2025 24 June 2025 **Bigaa (Balagtas) Old PNR Station** 29 April 2025 27 May 2025 26 June 2025 **Guiguinto Old PNR Station**: 29 April 2025 27 May 2025 26 June 2025 **Malolos Old PNR Station:** 29 April 2025 27 May 2025 26 June 2025

[redacted]

Attachment 3:

RAP Implementation Monitoring Form as of June 2025

Annex II Attachment 14-10

RAP Implmentation Monitoring Form

For North-South Commuter Railway (Malolos - Tutuban) Project

1. General Information

a. RAP Implementation Monitoring Results: 2nd Quarter of 2025

b. Date of Preparing this Form: 1 July 2025

c. Person Preparing this Form: Office of the Project Manager, Right of Way Acquisition, ISFR and Livelihood Units, Environmental Considerations

Department/Organizations: North-South Commuter Railway (Malolos Tutuban) Project

2. Scale of Land Acquisition and Resettlement

- Update after finalization of RAP during DED stage

2.1. Project Affected Households (PAHs) and Project Affected Persons (PAPs)

Items	Unit	Per RAP	Actual Number	Remarks
Total Project Affected Households (PAHs)	household	Legal: 395 HH	Legal: 462 Property Owners under Negotiated Sale and Expropriation 96 Project-Affected Renters 83 Business Owners 34 Displaced Employees	
		Informal: 438 (ISFs)	Informal: 1,277 ISFs	-additional 2 ISFs (approved inclusion under BSAAC Deliberation)
PAHs which need relocation (as resident)	household	Legal: 88 HH	Legal: 239 HH with affected structures 96 Project-Affected Renters	
		Informal: 416 (ISFs)	Informal: 919 ISFs (529 relocated)	Decrease from 933 (1Q) to 919 (2). Breakdown of deducted 14 ISFs is as follows: - Additional 2 ISFs identified (as refered to ROW #2) -Additional 3 ISFs were endorsed back by LA team to ISFR team -19 ISFs deducted subject for Non-Reloc
PAHs which do not need relocation (as resident)	household	Legal: 307 HH	462 Property Owners under Negotiated Sale and Expropriation	
		Informal: 22 (ISFs)	Informal: 284 ISFs	-3 ISFs were endorsed back to ISFR team for reloc -additional 19 ISFs subject for Non-Reloc

Business owners who need relocation	persons	14 persons	18 persons	
Business owners who do not need relocation	persons	24 persons	8 persons	
Total PAPs	persons	Legal: 575 persons	Legal: 213 persons to be displaced 462 Property owners under Negotiated Sale and Expropriation (357 Negotiated Sale; 105 Expro) 2 persons to donate property 3 persons to execute quitclaim 83 persons with excluded properties 7 unidentified persons (TOTAL: 770 persons)	
		Informal: 1752 persons	Informal: 5,108persons	*x4 per ISF(approximate) *2 additional ISFs as stated in ROW #2
PAPs who need relocation (as resident)	persons	Legal: 268 persons	Legal: 213 persons	
		Informal: 1448 persons	Informal: 3,676 persons	x4 per ISF(approximate) *14 ISFs were subject for non reloc as stated in row #4
PAPs who do not need relocation (as resident)	persons	Legal: 88 persons	Legal: 462 persons	
		Informal: 304 persons	Informal: 1,136 persons	*x4 per ISF(approximate) *additional 16 PAPs for non reloc stated in row #6

2.2. Total Areas to be Acquired

Total	Details
Total areas: 186,383.84 m2 inlcuding CP05	Residential: 17,555.84 m2 Commercial: 11,367.0 m2 Industrial: 140,035.0 m2 Agricultural: 10,881.0 m2 Mixed Use: 1,079.0 m2 Road Lot: 67.0 m2 No Data: 481.0 m2 Government: 4918.0 m2

2.3. Structures and Improvements

Legal Structures	CP01 & CP02 - 91 (under Negotiated Sale and Expropriation Only) [71 Structures and 20 Improvements] CP06 - 231 (under Negotiated Sale and Expropriation Only) [199 Structures / 32 - Improvements] CP05 - 10 (under Negotiated Sale and Expropriation Only) [9 Structures / 1 - Improvement]
Illegal Structures	CP01 - 244 (222 Demolished and Cleared) CP02 - 12 (12 Demolished and Cleared) CP05 & CP06 - 298 (51 structures have been Dismantled and Cleared) (3 Structures were endorsed back by LA team to ISFR team)

2.4. Crops and Trees

Trees	Fruit trees: 409 Forest Trees and Cash Crops: 135 Ornamental Plants and Palms: 2,633 Other Plants and Trees: 19

3. Monitoring Results

3.1. Progress of Land Acquisition and Resettement

(1) Summary of Progress: Number

As of (d/m/y)	Number of PAHs Receiving All Compensation / Subsidy for Loss of Land (HH)	Number of PAHs Receiving All Compensation / Subsidy for Loss of Structure (HH)	Number of PAHs Receiving All Compensation / Subsidy for Loss of Improvement (HH)	Number of PAHs Receiving All Compensation / Subsidy for Loss of Crop/Tree/ Perennial (HH)	Number of PAHs Receiving All Compensation / Subsidy for Loss of Income (HH)	Number of PAHs Receiving All Full Entitlement (HH)	Number of PAHs Move Out Current Place (HH)	Number of ISFs Moving into Resettle- ment Site (HH)	Land Area Already Acquired (m2)
30/06/2025	104 out of 346 Lots	109 out of 355 Structures	17 out of 59 Improvements	20 out of 30 crops and trees owners [Php 148,825.90 of Php 278,643.42]	97 out of 117 business owners and displaced employees ISF- 1 out of 1 (Income loss)	471 out of 933 ISFs	529 out of 933 ISFs	529 out of 933 ISFs	174,476.60 sqm out of 186,383.84 sqm

(2) Summary of Progress: Percentage

As of (d/m/y)	Percentage of PAHs Receiving All Compensation / Subsidy for Loss of Land (%)	Percentage of PAHs Receiving All Compensation / Subsidy for Loss of Structure (%)	Percentage of PAHs Receiving All Compensation / Subsidy for Loss of Improvement (%)	Percentage of PAHs Receiving All Compensation / Subsidy for Loss of Crop/Tree/ Perennial (%)	Percentage of PAHs Receiving All Compensation / Subsidy for Loss of Income (%)	Percentage of PAHs Receiving All Full Entitlement (%)	Percentage of PAHs Move Out Current Place (%)	Percentage of ISFs Moving into Resettlement Site (%)	Percentage of Land Area Already Acquired (%)
30/06/2025	30.05%	30.70%	28.81%	66.67%	82.91%	50.48%	56.70%	56.70%	93.61%

(3) Detailed List of Compensation and Assistance

- Legal Owners in a separate document (Annex A)

- ISFs in a separate document (Annex B)

3.2. Livelihood Restoration Programs

- In a separate document (Annex C)

3.3. Grievance Redress Mechanism

- In a separate document (Annex D)