Initial Environmental Examination

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IND: Inclusive, Resilient and Sustainable Housing for Urban Poor Sector Project in Tamil Nadu (IRSHUPSP) – Vallam Subproject - PART B

Prepared by the Tamil Nadu Slum Clearance Board for the Asian Development Bank.

Sl. no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		plant shall be submitted to the PID • No such installation by the Contractor shall be allowed till all the required legal clearances are obtained from the competent authority and the same is submitted to the PID.			
4.3	Quarry, borrow areas operations	• If quarry, borrow areas are exclusively opened for the project, contractor shall ensure that they qualify all the legal conditions to operate such areas. • Consent to Operate (CtO) for quarry sites has to be taken from Tamil Nadu Pollution Control Board (TNPCB) and a copy of the same has to be kept in record and submitted in PID. • Contractor has to comply with all the conditions stipulated in Consent to Operate document. • If contractor purchases the materials from other party, he has to ensure that quarry has obtained the necessary clearance from Tamil Nadu Pollution Control Board (TNPCB) and should take a copy of it and submit in PID.	• list of approved quarry sites and sources of materials • CtE and CtO certificated obtained by contractors for quarry sites, batching plant and DG sets and submitted to PID	Contractor and PID	PMU
4.4	Stripping, stocking and preservation of top soil	• The topsoil from areas of cutting and areas to be permanently covered (proposed site construction of building) will be stripped to a specified depth of 150mm, trans located and stored in stockpiles. • The stockpiles will be covered with gunny bags or tarpaulin. It will be ensured by the contractor that the topsoil will not be unnecessarily trafficked either before stripping or when in stockpiles. Such stockpiled topsoil will be returned to cover the disturbed area and cut slopes.	• Top soil preservation plan prepared and approved by PID • Record of top soil excavated, preserved and reutilized	Contractor and PID	PMU

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4.5	Soil and water pollution due to storage of fuels, lubricants, construction vehicles and construction wastes	• Fuel and lubricant storage areas shall be designed in such a way that oil may not contaminate soil or water. • The floor of storage area shall be protected by impermeable membrane and covered by roof so that it is not affected by rain. • Oil pumps should be used to take out the oil from the container and no oil spillage shall take place. • All the construction waste should be disposed properly after end of the day so that it may not create nuisance at site. • Soil and water pollution parameters shall be monitored as per the monitoring plan. • Dispose waste oil and lubricants that have been generated as per provisions of Hazardous Waste (Management and Handling) Rules, 1989. • Inspect all vehicles daily for fluid leaks before leaving the vehicle staging area, and repair any leaks before the vehicle resumes operation • Strictly prohibit open defecation by workers in nearby areas	• Proper storage of fuel and lubricants • Impermeable membrane used in flooring of storage yard to prevent soil and water pollution • Construction waste disposal records • Waste management plan	Contractor and PID	PMU
4.6	Siltation of drains/ water bodies due to spillage of construction wastes	• Silt fencing to be provided at construction sites during rain period to prevent sediments from the construction site to enter into the watercourses/ nearby settlements. The number of units of silt fencing to be installed is to be decided by the Engineer. • Haul roads on the site and approaches to the watercourse (or drains leading to watercourses) will be regularly cleaned to prevent the build-up of mud; areas of	• Site fencing • Numbers of Silt traps constructed at site • Proper drainage system provided at site • Regular cleaning of drains during rain period	Contractor and PID	PMU

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		bare soil will be kept to a practical minimum to reduce silt runoff. • Extraneous construction wastes will be transported to the pre-identified disposal site for safe disposal.			
4.7	Emission from Construction Vehicles, Equipment and Machinery	• The discharge standards promulgated under the Environmental Protection Act will be strictly adhered to. • All vehicles, equipment and machinery used for construction will conform to the relevant Standard. • All vehicles, equipment and machinery used for construction will be regularly maintained to ensure that pollution emission levels comply with the relevant requirements. • All the construction vehicles shall have Pollution Under Control (PUC) certificates to check air pollution.	• PUC available for all vehicles • maintenance record of construction vehicles and equipment	Contractor and PID	PMU
4.8	Erosion Hazards	The resettlement site has a gentle slope and hence the risk of erosion is anticipated. Hence the Contractor will be required to: • Save topsoil removed during excavation and use to reclaim disturbed areas, as soon as it is possible to do so. • Use dust abatement such as water spraying to minimize windblown erosion. • Provide temporary stabilization of disturbed/excavated areas that are not active under construction. • Apply erosion controls (e.g., silt traps) along the drainage leading to the water drains. • Maintain vegetative cover within unused land to prevent erosion and periodically	• Slope stability • Frequent monitoring during the piling operation • Monitoring noise and vibration	Contractor and PID	PMU

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		monitor the area to assess erosion. • Clean and maintain catch basins, drainage ditches and culverts regularly. • Conduct routine site inspection to assess the effectiveness and the maintenance requirements for erosion and sediment control systems			
4.9	Pilling Operation (Noise and Vibration Impacts)	• The Contractor should perform construction activities in a phased manner especially during drilling the piles, which may disturb the surrounding area due to vibration • The contractor and PID shall inspect the nearby settlement site, to assess the likely impacts during the piling operation and based on the assessment, suitable mitigation measures like provision of temporary noise barrier and structural strengthening measures shall be provided • For the structures that are week, appropriate evidence (including video/ photograph) shall be collected from the site, for which temporary structural support shall be provided till the completion of the piling works	• Frequent monitoring during the piling operation • Monitoring noise and vibration	Contractor and PID	PMU
4.10	Generation of Dust	The contractor will take every precaution to reduce the levels of dust at construction sites to the satisfaction of the Engineer. • All earth works to be protected / covered in a manner acceptable to the satisfaction of the Engineer to minimize dust generation. • Clearance will be affected immediately by manual sweeping and removal of debris, or if so directed by the Engineer, the road surfaces will be hosed or watered using	• records of housekeeping • records of water sprinkling at site • vehicles carrying excavated soil covered • AAQ parameters (Particulate matter (PM_{10} & $PM_{2.5}$), SOx,	Contractor and PID	PMU

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		necessary equipment. • Construction site shall regularly be wetted by sprinkling of water during dusty conditions especially during summer seasons and winds. • Ambient Air Quality monitoring has to be performed as per the Environmental Monitoring Program as indicated in the Table 36.	NOx, CO) to be monitored (Table 36)		
4.11	Noise from construction activities and equipment	• The Contractor will ensure appropriate noise monitoring carried out continuously during piling works. • Prior to piling works the contractor should inform surrounding areas as well and it will be prohibited at night. Specify the limit for noise for the piling works. • Maintenance of vehicles, equipment and machinery will be regular and to the satisfaction of the Engineer, to keep noise from these at a minimum. • All vehicles and equipment used for construction will be fitted with exhaust silencers. During routine servicing operations, the effectiveness of exhaust silencers will be checked and if found to be defective will be replaced. • Noise limits for construction equipment used in this project (measured at one metre from the edge of the equipment in free field) such as compactors, rollers, front loaders, concrete mixers, cranes (movable), vibrators and saws will not exceed 75 dB (A). • Notwithstanding any other conditions of contract, noise level from any item of plant(s) will comply with the noise standards specified by CPCB.	• maintenance record of construction vehicles and equipment • exhaust silencers working properly • use of proper PPEs as work sites • Records of noise monitoring as per EMP and as set out in Table 36.	Contractor and PID	PMU

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		• If specific noise complaints are received during construction, the Contractor may be required to implement one or more of the following noise mitigation measures, as directed by the Engineer:
		  • Shut off idling equipment.
		  • Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
		  • Notify nearby residents whenever extremely noisy work will be occurring.
		• The Contractor shall provide necessary PPEs as per the direction of the environmental specialist (PID)
		• The Contractor shall adopt IS 5121-1969 (Indian standard Safety Code for Piling and Other Deep Foundation Works) to ensure safety is maintained during the piling operations
		• Ambient Noise levels has to be monitored as per the Environmental Monitoring Program			

4.12	Impacts on flora and fauna	• Strictly instruct workers not to cut trees for fuel wood • Do not harm existing vegetation in the area except for those indicated in site plan • Limit activities within the work area. • Strictly prohibit poaching of birds and animals in the vicinity of work sites	• Baseline information of the flora and fauna for the project area	Contractor and PID	PMU
4.13	Material Handling at Site	All workers employed on mixing asphaltic material, cement, concrete etc., will be provided with protective footwear and protective goggles. Workers, who are engaged in welding works, will be provided	• use of proper PPEs as work sites • records of PPEs procured and issued for use	Contractor and PID	PMU

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		with welder's protective eye-shields. Workers engaged in stone breaking activities will be provided with protective goggles and clothing and will be seated at sufficiently safe intervals.			
4.14	Disposal of Construction Waste /Debris / Cut Material	• The waste generated will be reused in the construction activities, either as a fill material or otherwise, based on its suitability of reuse to the maximum extent possible. • Safe disposal of the extraneous material will be ensured in the pre-identified disposal locations. In no case, any construction waste will be disposed around the project locations indiscriminately. • Burning of municipal solid waste or hazardous waste will be prohibited.	• records of excavated soil and • records of reuse and disposal of excavated soil • disposal site identified and approved • AAQ parameters (Particulate matter (PM_{10} & $PM_{2.5}$), SO_x, NO_x, CO) to be monitored	Contractor and PID	PMU
4.15	Safety Measures During Construction	• Personal Protective Equipment (PPE) for workers on the project and adequate safety measures for workers during handling of materials at site will be taken up. • The contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress. • Appropriate safety measures (including hard barriers) have to be adopted for the construction during the night time (Lux level shall be equivalent to a minimum of two 500 watt flood lights)	• use of PPEs • records of PPEs procured and issued for use • compliance of all regulations regarding scaffolding, ladders and work at height	Contractor and PID	PMU
4.16	Risk caused by Force Majeure	• All reasonable precaution will be taken to prevent danger of the workers and the public from fire, flood, drowning, etc.	• records of first aid facilities at site • records of safety	Contractor and PID	PMU

Sl. no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		• All necessary steps will be taken for prompt first aid treatment of all injuries likely to be sustained during the course of work.	training to workers		
4.17	Malaria Risk	• The Contractor will, at his own expense, conform to all anti-malarial instructions given to him by the Engineer; mosquito prevention at site should be done • The frequency of the testing for malaria should be increased during the monsoon season	• records of use of mosquito prevention measures at site and work camps • anti-malaria instructions to workers	Contractor and PID	PMU
4.18	Clearing of Construction Camps & Restoration	• Contractor to prepare site restoration plans for approval by the Engineer. The plan is to be implemented by the contractor prior to demobilization. • On completion of the works, all temporary structures will be cleared away, all rubbish should be removed, all rubbish should be removed, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expense, to the entire satisfaction of the Engineer.	• restoration plan for site and work camps prepared • restoration of site and work camps as per plan	Contractor and PID	PMU
4.19	Influx of migrant workers	• Local labourer's to be given preference for job opportunities and each contractor should be bound by this commitment • The Contractor has to adopt a Code of Conduct for the migrant labour to resolve any issues with locals • Ensure labour-related regulations are met • In case of hiring outside labour, ensure that their working conditions as well as camps meet local regulations and the best practices of the industry (refer to IFC Workers' Accommodation: Processes	• Health and safety risks • Chances of spread of sexually transmittable diseases like AIDS • Water pollution • Health & Safety Risks due to Transmittable diseases (HIV/AID and Covid-19) /	Contractor and PID	PMU

Sl. no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		and Standards)	awareness plan		

Table 33: Environmental Management Plan for Operation and Maintenance - Vallam, Thanjavur District

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
1.	**Operation and Maintenance Impacts**				
1.1	Solid waste (debris, excavated soils, etc.)	• Re-establish the original grade and drainage pattern to the extent practicable. • Restore access roads, staging areas, and temporary work areas. • Remove all tools, equipment, barricades, signs, surplus materials, debris, and rubbish. Demolish buildings/structures not required for O&M. Dispose in designated disposal sites. • Request in writing from PID that construction zones have been restored.	• Pre-existing condition	Contractor (till the DLP period) and PID	PMU
1.2	Proposed Buildings/ Dwelling units may result congestion, increased pollution.	• Creating awareness through Consultation • The 3 Rs (Reduce, Reuse, and Recycle) approaches have to be explained to the settled communities in order to reduce the pollution level (waste minimisation, water minimisation etc.,) • The environmental monitoring action plan during the operation stage will result in monitoring of the environmental impacts after project implementation.	• Conducting regular consultations • Monitoring plan during project operation	Social Team PID TNSCB/ Vallam Special Grade Town Panchayat	PMU
1.3	Rain water Harvesting Pit management	• Regular inspection and cleaning of catchment, gutters, filters and tanks reduce the likelihood of contamination. • Water from other sources should not be mixed with that in the tank. • Storm water drains will be maintained periodically to maintain free flow of storm	• Monitoring plan during project operation	TNSCB/ Vallam Special Grade Town Panchayat	PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		water without any obstacles			
1.4	Management of the STP	• TNSCB/ Vallam Special Grade Town Panchayat will carry out regular maintenance of the STP to prevent any impacts, including pollution of ground water and nearby water courses. • TNSCB shall appoint an Environmental Engineer with necessary qualification for the operation and maintenance of the STP, All the necessary PPE's should be provided to the STP operator. • It is the sole responsibility of the TNSCB that the treated sewage water disposed (as per PART A Schedule VI of the Environmental Protection Rules 1986)for green belt development/ avenue plantation should not pollute the soil/ ground water/ adjacent canals/ lakes/ ponds, etc • The excess treated water will be discharged into the Underground Drainage system • Any sludge after anaerobic treatment and drying will be disposed with the municipal solid waste (organic waste). The treated sludge shall be as per compost quality standard given in the Solid waste management rules 2006 (schedule II A, standards for composting). • Workers who interact with any sludge will be provided all appropriate PPE's including gloves, safety shoes, protective eyewear and masks.	• proper sanitation and solid waste management	TNSCB/ Vallam Special Grade Town Panchayat	PMU
1.5	Unhygienic condition due to poor maintenance of sanitation facilities and irregular solid waste collection in the project	• TNSCB/ Vallam Special Grade Town Panchayat will carry out maintenance of the sewer system (including the pipeline, collection system etc.,), and carry out the	• proper sanitation and solid waste management	TNSCB/ Vallam Special Grade Town Panchayat	PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
	site necessitate regular maintenance of constructed amenities.	regular collection of wastes, and will also ensure that Sanitation improvements proposed do not result in pollution of groundwater. • Sanitary facilities do not interfere with other utilities and block access to buildings, cause nuisance to neighbouring areas. • House hold hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016. • Municipal Solid Waste will be segregated as organic waste and inorganic waste. Both organic and Inorganic waste will be collected by the Vallam Special Grade Town Panchayat, Organic waste will be composted in the vermicomposting / biodegradation process and will be used as a manure. The inorganic waste will be disposed off in the MSW dumping area. • The transfer of waste will also ensure no spillage and all wastes will be transported to a designated solid waste treatment site.			
1.6	Fire fighting / Emergency preparedness	• Fire fighting equipment's including the fire extinguisher and sand buckets has to be annually maintained. Fire extinguishers have to be checked regularly for the expiry date and has to be refilled or replaced accordingly. Wet sand (if any) in the bucket should be replaced with dry sand • Fire mock drills should be conducted as a	• Fire extinguisher expiry date • Emergency preparedness plan • Training records	Contractor (during the DLP) TNSCB/ Vallam Special Grade Town Panchayat	PMU

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		part of emergency preparedness to create awareness among the residents			

Table 34: Environmental Management Plan for Building Demolition Works – 4 Encroachment Area located in the Big Temple Moat

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
Pre-construction Stage					
1.	Consent, NOCs, Permissions and SEMP	• Contractor should obtain Permissions/ NoC from the TNPCB if the construction and demolishing waste (C&D) is equal to or greater than 20 tons per day or 300 tons per project in a month • Before the dumping of the demolition waste, an agreement with the municipality/ panchayat and concerned agencies to dispose the debris should be obtained and be included in the EMP/SEMP. • Contractor shall undertake a COVID risk assessment of project area and prepare a COVID Response and Management Plan (C-R&MP) and submit to Thanjavur Municipal Corporation /PID for approval • Obtain labour insurance and labour licences for workers involved in the demolishing activities which should be included in the SEMP.	• Estimated quantity of the Construction and Demolition Waste • ASI suggestion/ feedback on the ancient wall like structure adopted by demolition and regeneration works contractor	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		• Submission and approval of updated EMP/ SEMP prior to starting of work to the Thanjavur Municipal Corporation /PID. • Conduct consultation with the local communities and provide detail in the language that is understandable to the local community regarding project activities and the anticipated impacts as part of the project information dissemination (prior to the start of the demolishing activity). • Display the project related information including the GRM details at the project (demolishing) site. • TNSCB should consult the ASI for information pertaining to the ancient wall like structure located in the Sekkaditheru encroachment site. Based on the suggestion/ feedback appropriate mitigation measure (including protection of the wall from any sort of damages during the demolishing works) should be re-incorporated into the IEE and EMP and adopted by the demolition and regeneration works contractor.			
2.	Clearing of trees/ Removal of vegetation	All reasonable measures shall be undertaken to ensure that no native fauna is harmed or placed at risk during the course of the demolishing activities However, under	Tree count information and compensation ratio	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

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		unavoidable conditions if any of the trees are required to be cut/ felled, then prior permission as per existing procedure from Forest department, ensuring appropriate compensation including compensatory plantation at 1:10 ratio as stipulated by the High Court of Madras (WP No 7811/2010 and MP No 1/2010 dated 25/06/2010).			
3.	Assessment of Environmental Parameters	Baseline parameters for Water quality and Soil quality have to be assessed prior to commencement of work.	Water and Soil quality parameters	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU
4.	Asbestos containing materials (ACM)	• Hire an Asbestos Expert to undertake training for all workers / contractors in identifying existing ACM and on Occupational Environment, Health and Safety related to potential hazardous material exposure (refer to TOR included as an Appendix 12 of EARF) • Conduct detailed walk over survey by ACM expert to ascertain the location of any ACM prior to any demolition activity • Demolition works conducted without disturbing any ACM • Support contractor assigned person (Contractor ACM) in conducting site assessment (across selected encroachments), developing inventory of existing	• Inventory of structures using Asbestos as celling or roofing materials • Estimation of quantity of ACM • Disposal mechanism / plan under the guidance of the Asbestos Expert.	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		ACM including tagging and marking locations of existing ACM in all site maps. • Develop ACM management plan /protocol for compliance with asbestos policies of major international agencies[20] and national requirements • Submission of site assessment, inventory, and ACM management plan to TNSCB PMU for review and approval • Contractor-ACM to carry out general awareness campaigns on ACM exposure for field staff and community • Conduct training of workers on ACM during orientation / induction			
Construction Stage					
5.	Potential adverse impact on sensitive receptors	• Demolition works to avoid sensitive receptors such as Physical Cultural Resources (PCRs) and will specifically exclude: o Religious structures e.g. chapels, temples, mosques, etc. o Avoid cutting trees	• List including a map with (geo-coordinates) showing PCRs in the demolition area • Preparation of Contingency plan for conservation of the PCRs	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

[20] In the USA, standards and approaches for handling asbestos are prescribed by the Occupational Health and Safety Administration (OHSA) and the Environmental Protection Agency (EPA) and can be found at http://www.osha.gov/SLTC/asbestos

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		○ Any damage to surrounding or properties needs to be rectified immediately			
6.	Air, noise and dust pollution during the dismantling of the building	• Prior information to the adjacent settlements/ residence regarding the demolishing process, scheduling of the activities etc. • Water spraying at the demolition site • Fencing / Install barriers (GI sheets, geo-net) especially at the eastern side of the building facing the road) to shield from dust and aggregates • Avoid usage of machines/equipment with extra noise; • Do not accumulate and burn waste at the site • Carry out demolition activities stage wise, give adequate notice and information of activities to the adjoining stakeholders • Provide project-related information to stakeholders, communities and/or affected people before and during construction works including at least 7 days prior to the start of works and again at least 1 day prior to works through issuing a pamphlet booklet to affected persons	• records of housekeeping • maintenance record of construction vehicles and equipment • exhaust silencers working properly • records of water sprinkling at site • Covered vehicles carrying the excavated soil • Records of Air Quality monitoring as per EMP as listed out in Table 36. • Contractor consultation records	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU
7.	Impacts on the existing public utilities	• Public utilities like road, electric poles, and telecom poles will not be disturbed from the demolition activities. However, if it is	• List showing utilities in the demolishing area • Contingency plan for	Demolition Contractor/ Thanjavur Municipal	PID/PMU

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		disturbed, the Contractor should inform the appropriate agency and immediately the issues should be rectified. Till that time the demolition activity should be put on hold.	services disruption	Corporation	
8.	Land and Water Pollution	• Identify proper location to dispose wastewater from demolition and other activities in consultation with respective local bodies • Silt fencing should be provided surrounding the water body to prevent surface runoff from the demolishing site entering the water bodies • Dispose the waste water in identified location considering the environment and safety aspects • Prohibit the contamination of groundwater • Hazardous waste (Asbestos) should be stored separately and it should be handed over to the authorised Hazardous waste handling agency (as approved by TNPCB) • Before the dumping of the demolition waste, an agreement with the municipality/ panchayat and concerned agencies to dispose the debris should be obtained prior to any demolition activity occurring. • Designated site for disposal should be identified in coordination with ULB	• Site fencing • Numbers of Silt traps constructed at site • Proper drainage system provided at site • Regular cleaning of drains during monsoon period • Inventory details of the Hazardous waste (Asbestos) • Use site photographs and baseline information (chapter 4) for selection of site for dumping construction and demolishing wastes	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
9.	Waste generation (including demolition debris/ waste) and improper disposal	• Develop and Implement Waste Management Plan for demolition works in consultation with Municipality / Panchayat • Demolition stage: o Transport of recyclables /scrap/ discarded equipment either to identified depots or to be handed over to subproject beneficiaries for use or re-sale o Store all refuse and construction & demolition debris / waste generated on demolition sites away from water bodies / water sources / drainage and in designated areas and remove them from these locations for disposal to approved disposal sites or re-use for backfilling / site reclamation o Maximize the re-use of spoils, construction & demolition debris / wastes to minimize waste disposal o For construction & demolition debris / waste, licensed companies will be hired to collect, transport and dispose of wastes at licensed dump facilities o Biodegradable waste such as cleared vegetation may be provided to local communities for use	• records of excavated soil and • records of reuse and disposal of excavated soil • Identification and approval of disposal site • Waste Management Plan approved	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

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		○ The proponent shall provide the dispenser for the disposal of Sanitary Napkins ○ Waste burning will be prohibited ○ No final waste disposal on site / off-site unless in approved disposal facilities / landfills ○ Comply with the ban on one time use and throwaway plastics under Tamil Nadu Government Order			
10.	Disturbance to the local Population and pedestrians	• Install corresponding signs, hoarding boards, organization of bypasses (as per the MoRTH specifications). • Install barriers (GI sheets, geo-net) especially for the building facing the road side to shield from dust and aggregates • Provide adequate street lighting, hard barricading at demolition site for the night to prevent accident • Conduct consultation with the local communities and provide detail in the language that is understandable to the local community regarding project activities and the anticipated impacts as part of the project information dissemination (prior to the start of the demolishing activity). • Manual method for demolishing the encroached structures should	• Site work plan prepared by Demolition Contractor and approved by ULB • Traffic plan and records of road signage's	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

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		be preferred over the use of heavy equipment's to minimise the noise and vibration impacts to the surroundings • Display the project related information including the GRM details at the project (demolishing) site. • Demolition activity should not be carried out in the night time (as per the labour law and 8 hours working time should be adopted)			
11.	Vibration Impact	• Precaution will be taken while using the machines and equipment, during demolition • Before any works commences, conduct situation analysis in the subproject area of influence for checking structural integrity of nearby building that may be affected by vibration during demolition works. • Noise level measurements shall be taken once before the start of the demolition works to establish the baseline; and once after completion of the demolition works • Contractor will be responsible for creating awareness among the operators to ensure careful handling of machines and equipment and heavy vehicles like excavators and dump trucks during mechanical demolition • The contractor will inform the surrounding settlements/	• maintenance record of construction vehicles and equipment • records of noise monitoring as per Table 36 • contractor site and consultation records	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

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		residences and community in prior to operations that bear the risk of nuisance and accidents. • The contractor shall maintain the records of the consultations including dates, names and actions agreed to. • The contractor will be responsible for compensating if there are any damage to structures due to vibration resulting from demolition.			
12.	Traffic and pedestrian road congestion	• Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided • The transportation vehicles will be parked within the premises of demolishing site • Prohibit the parking of the transportation vehicles outside the demolition site • Put hoarding board to inform the pedestrian, road users and adjacent commercial shops/ offices about the activities. The mitigation activities should be recorded and documented. • Alternative access should be provided, in case of road blocking due to the movement of construction transporting vehicles,	• maintenance record of construction vehicles and equipment • contractor site specific plan	Demolition Contractor/ Thanjavur Municipal Corporation	PID/PMU
13.	Safety for the Demolition Workers	• Prepare H&S plan and include the measures such as (i) type of hazards during demolishing works; (ii) corresponding personal	• use of PPEs • records of PPEs procured and issued for use	Demolition Contractor / Thanjavur Municipal	PID/PMU

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		protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents • An environment, health and safety site officer should also be nominated by the demolition contractor. • Make mandatory the use of safety gears/ PPEs (helmets, safety belts, masks, gloves and boot) by workers depending on nature of work. • Necessary planning and safety approach will be made for rescue during emergency. • The ULB will have to check whether the provisions made in the Construction Safety Plan are implemented accordingly. • Workers will be provided with first aid and health facilities at the site. • There will be provision for group accidental insurance for the workers. • First Aid Room shall be provided in the project site during the entire construction and operation phases of the project • Child labour is strictly prohibited in all the activities executed by the Contractors • penalty for non-compliance to be	• EHS training records • compliance of all regulations regarding ladders, work at height etc	Corporation	

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		tied with payment withholding and/or termination of contract • Respective provisions will be included in the contract document with contractor.			
14.	Impacts due to the Transportation from the Demolition area	• The transportation of the waste and other materials should be in safe manner considering the rule of road traffic. • The schedule for the transportation should be made not to coincide during peak traffic hours, • Safety measures to be considered while transporting the materials • Covering the trucks with plastic sheets to prevent dust pollution and other hazards	• Temporary Traffic Management Plan	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU
15.	Site selection of waste disposal	• The waste from the demolition activities will be disposed on the prescribed area in consultation with municipality/ panchayat. • The waste disposal should not be near to any type of water resource or environmentally sensitive area • Disposal area should be far from the community and settlement • The disposal of waste should not further deteriorate the surrounding environment. • The identified site should be approved by the ULB	• Disposal site selected and approved by ULB • Records of materials disposed at disposal site • Log book maintained for debris disposal	Demolition Contractor/ Thanjavur Municipal Corporation	PID/PMU
16.	Construction Site Restoration	• Contractor to prepare site restoration plans for approval by the PID. The plan has to be	• Visual observation (before and after site photos for record)	Demolition Contractor / Thanjavur	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		implemented by the contractor before demobilization • On completion of the works, all rubbish/ construction debris, other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the Contractor's expense, to the entire satisfaction of the PID.		Municipal Corporation	
17.	Labour Requirements	• The Contractor, for any unskilled labour, should draw from the local communities to avoid any additional stress on the existing facilities (medical services, power, water supply, etc.) • The Contractor shall provide training to build the skills of locally-recruited labour.	• As per the contractual obligations	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU
18.	Social and Cultural Resources	• No cultural properties or religious structures shall be removed or relocated without the knowledge and written consent of the concerned parties or communities and local administration as the case may be. Sites for the relocation of these religious structures shall be identified following the choice of the community. • As far as possible, the architectural elements of the structure should be conserved/reflected/translated into the design of new structures following the wishes of the community	• Chance find protocol • ASI suggestion/ feedback on the ancient wall like structure	Demolition Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		• For any Chance find, consult Archaeological Survey of India (ASI) or Tamil Nadu Archaeology Department to obtain an expert assessment of the archaeological potential of the site. • As per the AMASR Act 2010, 300m buffer has to be maintained from the ASI monuments, the encroachment sites Vadakkualangam and Kodimarathumoolai are located within 300m buffer and hence for carrying out the demolishing works, TNSCB should consult ASI prior to tendering of any works to discuss about the proposed subproject activities and to get their feedback/ recommendations, which has to be minuted and incorporated in the IEE and EMPs. The Contract for demolition works shall adopt the recommendations shared by the ASI and revised EMP. No demolition works should occur prior to ASI consultation. • TNSCB should consult ASI to get the suggestion/ feedback on the ancient wall like structures located in the Sekkaditheru encroachment site and will be required to prepare a heritage impact assessment and management plan in close consultation and support of ASI which has to be reincorporated into the IEE and EMPs. This			

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		meeting will be minuted. The Contract for demolition works shall adopt the recommendations shared by the ASI and relevant EMP. No demolition works should occur prior to ASI consultation. • Consider alternatives if the site is found to be of medium or high risk. • Include state and local archaeological, cultural and historical authorities, and interest groups in consultation forums as project stakeholders so that their expertise can be made available. • Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved.			

Table 35: Environmental Management Plan for Regeneration Works - Big Temple Moat Encroachment Area

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
1.	**Pre-Construction**				
1.1	Assessment of Environmental Parameters	Baseline parameters for Water quality and Soil quality have to be assessed prior to commencement of work.	• Water and Soil quality parameters	Contractor / Thanjavur Municipal Corporation	PID/PMU
1.2	Consent, NOCs, Permissions and SEMP	• Contractor should obtain Permissions/ NoC from the TNPCB if the desilting material is equal to or greater than 20 tons per day or 300 tons per project in a month • Before the disposal of the desilting materials/ silt waste, make an agreement with the municipality/ panchayat and concerned agencies to dispose the debris. • Obtain labour insurance and labour licence for the workers involved in the demolishing activities • Submission and approval of updated EMP/ SEMP prior to starting of work to the Thanjavur Municipal Corporation/PID • Operation and maintenance plan should also be prepared prior to completion of construction • As per the AMASR Act 2010, 300m buffer has to be maintained from the ASI monuments, the encroachment sites Vadakkualangam and Kodimarathumoolai are located within 300m buffer and hence for carrying out the regeneration works, TNSCB should consult ASI to discuss about the proposed subproject activities and to get their feedback/ recommendations, which has to be minuted and incorporated in the IEE and EMPs. The Contract for regeneration works shall adopt the recommendations shared by the ASI.	• Estimated quantity of the Construction and Demolishing Waste • Operation and maintenance plan • Written agreement on disposal of construction and demolition waste • Approved SEMP by PID	Contractor/ Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		No regeneration works should occur prior to ASI consultation. • TNSCB should consult ASI to get the suggestion/ feedback on the ancient wall like structures located in the Sekkaditheru encroachment site. And, will be required to prepare a heritage impact assessment and management plan in close consultation and support of ASI which has to be reincorporated into the IEE and EMPs. This meeting will be minuted. The Contract for regeneration works shall adopt the recommendations shared by the ASI. No regeneration works should occur prior to ASI consultation.			
1.3	Workers camp / labours accommodation	• Provide water and sanitation facilities (situated separately for men and women); regular cleaning and disinfection of site • Provide adequate electricity / lighting • Provide potable water / storage tanks • Conduct regular health check-up / provide access to medical care • First Aid Room shall be provided in the project site during the entire construction and operation phases of the project • The proponent shall provide the dispenser for the disposal of Sanitary Napkins • Provide solid waste bins and collection; no final disposal on-site or burning of wastes is allowed in the workers camp / labours accommodation • Comply with the ban on one time use and throwaway plastics under Tamil Nadu Government Order • Discharge construction / workers camp sewage / wastewater into onsite septic	• Location of construction camp approved by PID • Construction camp having all the basic amenities with proper sanitary conditions drainage and watery supply • Contractor health and waste disposal records	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		tanks or connect to local public sewer system			
1.4	Lack of sufficient design and planning to ensure long term sustainability and protection of assets created	• Develop and Implement Regeneration Works Standard Operation & Maintenance Plan (SOMP), including a minimum: o Clearance and fencing o Re-greening / re-vegetation of banks / land along water bodies and channels o New plantations with native species o Implement site specific plans in close coordination with municipality e.g. waste management plan, sewerage collection and management plan, etc o Preference should be given to low GHG embedded materials. o The possibilities of using local materials or recycled materials should be explored.	• Detailed design/ master plan for regeneration works • Approved Standard operation and maintenance plan	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.	**Construction Stage**				
2.1	Permissions from various departments	During construction, the permits obtained by the contractor shall be periodically examined and validity be ensured. This includes the Consent for the Batching plants from where the contractor sources the concrete, Labour License, insurances etc.	• Maintain record for validity information with respect to the permissions/ NoCs	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.2	i. De-silting of lakes ii. Construction of diversion drains iii. Strengthening of bunds	• The desilted earth should be disposed in a designated area in consultation with the Municipality/ Panchayat • Use of heavy construction equipments/ machineries shall be prohibited, Manual methods of regeneration works shall be adopted and any ASI recommendations should be adopted by the Contractor. • The Contractor should make sure that no appreciable change to the drainage course shall occur due to the construction of diversion channel.	• Maintain record of de-silted soil quantity • Record for solid waste management at site	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		• Wetting of soil before trench excavation, wetting of brick, metal and sand before handling • Construction residues such as metal cuttings/ shavings, wood, packing materials and containers should be disposed as per applicable legal requirements (please refer Table 4)			
2.3	Transportation of Construction materials	• Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided • Vehicles transporting construction materials prone to fugitive dust emissions should be covered • Trucks carrying sand should be provided with tarpaulin sheets to cover the bed and sides of the trucks • Idling of delivery trucks or other equipment should be avoided during loading and unloading operations • Sprinkling of water (for materials such as blue metal, sand and brick) before unloading to suppress dust generation • Adequate care should be taken to prevent spillage of earth or construction materials offsite and in haul routes. Any such spillage should be removed immediately, and the area cleaned	• Maintain records of housekeeping • records of water sprinkling • covered vehicles carrying Construction materials	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.4	Storage of construction materials	• Construction materials should be stored within the project area, without affecting the traffic and other common utilities. • Storage of materials for regeneration works should be confined to work sites, so that there is no obstruction to natural drainage pattern at site; and they should be covered to reduce dust generation	• Maintain register for construction materials	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
2.5	i. Management of Excavated silt ii. Construction debris and excavated materials	• The excavated silt should be transported in covered trucks and register should be maintained at the site. • Excavated silt is removed from the site every day preventing storage • Location for disposal of excavated silt should be identified in consultation with the Municipality/ Panchayat • Floating materials like plastics, weeds should be sent to the SWM (composting and plastic segregation) facility of the municipality. • The Contractor should ensure that silt is dry during transportation to the disposal site and dripping shall not be permitted.	• Maintain records of excavated soil • records of reuse and disposal of excavated soil • disposal site identified and approved	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.6	Traffic Management	• Traffic management should be in place by the Contractor with adequate placement of traffic signals and traffic control personnel, when the vehicles are passing through the local roads and near the project sites. Transportation of the construction materials to project sites and excavated silt/ wastes for disposal covered trucks shall be during non-peak hours	• Temporary Traffic Management Plan	Contractor/ Thanjavur Municipal Corporation	PID/PMU
2.7	Nuisance to neighbourhood community	• If possible, the materials should be transported through the temporary approach road formed without disturbing the neighbourhood community • Safety hard barricading should be provided while construction of drains near the structures restricting entry to work place and signages should be placed. • Work site lighting during night where ever required should be provided during the implementation. • Adequate slope gradient should be	• maintenance record of construction vehicles and equipment • records of noise monitoring as per EMP • contractor consultation records	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		maintained while strengthening the bund while working in the boundary of the site • Storage of materials should be within the earmarked areas of project area, without disturbing the nearby community • Conduct consultation with the local communities and provide detail in the language that is understandable to the local community about project activities and the anticipated impacts as part of the project information dissemination (prior to the start of the demolition activity) • Display the project related information including the GRM details in the project (demolishing) site. • Demolition activity should not be carried out at night (as per the labour la and 8 hours working time should be adopted)			
2.8	Operation of construction machinery	• All construction vehicles should comply with emission standards and be maintained properly. Wind shields or barriers (GI sheets, geo-net) should be installed all along the site boundary to abate the dust carried over to the neighbouring areas. • Use of ready-mix Concrete wherever possible shall be explored. In the case of use of Concrete Mixer, Concrete Mixer should be mounted on shelter with top and sides closed. • Sprinkling of water on metal & sand should be carried out before handling	• PUC available for all vehicles • maintenance record of construction vehicles and equipment • records of water sprinkling	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.9	Dust Pollution near settlements	• All earth work should be protected/ covered to minimize generation of dust. • Area under construction should be covered & equipped with dust collector. • Construction material should be covered or	• Maintain records of housekeeping • maintenance record of construction	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		stored in such a manner so as to avoid spreading of dust by wind. • Unpaved haul roads near / passing through residential and commercial areas to be watered thrice a day. • Trucks carrying construction material to be adequately covered to avoid the dust pollution and to avoid the material spillage.	vehicles and equipment • exhaust silencers working properly • records of water sprinkling at site • covered vehicles carrying excavated soil • records of Air Quality monitoring as per EMP		

2.10	Vehicular noise pollution at residential / neighbouring settlements	• Maintenance of vehicles, equipment and machinery should be regular to keep noise from these at a minimum.
		• All vehicles and equipment used for construction should be fitted with exhaust silencers. During routine servicing operations, the effectiveness of exhaust silencers should be checked and if found to be defective, it should be replaced.
		• Notwithstanding any other conditions of contract, noise level from any item of plant(s) will comply with the noise standards specified by CPCB.
		• If specific noise complaints are received during construction, the Contractor may be required to implement one or more of the following noise mitigation measures, as directed by the Engineer:
		  • Shut off idling equipment.
		  • Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
		  • Notify nearby residents whenever
			• Maintenance record of construction vehicles and equipment
			• Exhaust silencers working properly
			• Records of noise monitoring as per EMP
				Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		extremely noisy work will be occurring.			
2.11	Chance finds	• Construction contractors to follow these measures in conducting the excavation work o All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on the site shall be the property of the Government and shall be dealt with as per provisions of the relevant legislation. o The contractor will take reasonable precautions to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the ULB of such discovery and carry out the instructions for dealing with the same. o Stop work immediately to allow further investigation if any finds are suspected; o Create awareness among the workers, supervisors and engineers about the chance finds during excavation work. The ULB will inform State Archaeological Department if a find is suspected and seek direction from the Department prior to recommencing the work. o Develop a protocol for use by the construction contractors in conducting any excavation work, to ensure that any chance finds are recognized and measures are taken to ensure they are protected and conserved o TNSCB should consult ASI to get the suggestion/ feedback on the ancient	Maintain record for the Chance find	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		wall like structures located in the Sekkaditheru encroachment site. The Contract for demolition shall adopt the recommendations shared by the ASI. No demolition activities should occur prior to ASI consultation.			
2.12	Pollution from Fuel and Lubricants	• Contractor shall ensure that all vehicle/machinery and equipment operation, maintenance and refuelling will be carried out in such a fashion that spillage of fuels and lubricants does not contaminate the ground. • Contractor will arrange for collection, storing and disposal of oily wastes to the pre-identified disposal sites	• Proper storage of fuel and lubricants • Impermeable membrane used in flooring of storage yard to prevent soil and water pollution	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.13	Site clearance/ levelling	• Sprinkling of water to reduce dust generation. • All vehicles, equipment and machinery to be procured for construction shall confirm to the relevant Bureau of Indian Standards (BIS) Norms and relevant emission/safety norms and/or standards	• Maintain record for water sprinkling and • Records of PUCs for construction vehicles and equipment	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.14	Identification and selection of Quarries	• The Contractor will identify materials from existing licensed quarries	• Maintain record of MoU/ NOCs/ Consent from TNPCB for the quarries	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.15	Labour requirements and facilities	• The contractor should engage local labours to avoid conflict with local communities • The contractor has to adopt a Code of Conduct for the migrant labours to sort out any issues with the locals • Labour camp (if any) should be provided with water and sanitation facilities. • All the basic amenities as mentioned in the Factory Act, BOCW Act and Safety, Health	• Maintain labour register	Contractor / Thanjavur Municipal Corporation	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		& Welfare at Work (Construction) Regulation 2013, should be provided by the contractor			
2.16	Occupational health and Safety	• Prepare H&S plan and include the measures such as (i) type of hazards during demolishing works; (ii) corresponding personal protective equipment for each identified hazard; (iii) H&S training for all site personnel; (iv) procedures to be followed for all site activities; and (v) documentation of work-related accidents • An environment, health and safety site officer should also be nominated by the contractor. • Workers should be provided with necessary occupational health and safety equipment such as protective face mask, head gear, eye shields / protective goggles and safety gloves etc. • Emergency contact numbers including Ambulance should be displayed at the project site and labour accommodation. First aid will be made available at site. • Health check-up for the labourers should be carried out periodically due to exposure to slushy soil. • Elevated platforms should be equipped with handrails, toe boards and non-slip surfaces • Personal Floatation devices (life vests), First Aid Kits, Fire Extinguisher, Tow rope, etc. shall be provided on vehicles / floats while working near water filled portions of the water body	• Maintain records on accidents, near misses • Approved health and safety plan	Contractor / Thanjavur Municipal Corporation	PID/PMU
2.17	Safety Measures During Construction	• Personal Protective Equipment (PPE) for workers on the project and adequate safety measures for workers during handling of	• use of PPEs • records of PPEs	Contractor / Thanjavur Municipal	PID/PMU

Sl.no	Environmental Issues	Mitigation Measures	Indicators and Targets	Responsibility for Implementation	Responsibility for Supervision
		materials at site will be taken up. • Adequate strutting should be provided to avoid collapse of soil. • The contractor has to comply with all regulations regarding safe scaffolding, ladders, working platforms, gangway, stairwells, excavations, trenches and safe means of entry and egress. • The used construction materials including nails, wooden pieces and other waste generated should be immediately removed from the work site after completing the construction work • Where ever required, signage's, reflectors and work site lighting should be provided	procured and issued for use • compliance of all regulations regarding scaffolding, ladders and work at height	Corporation	
2.18	Barricading site	• The construction site should be barricaded with adequate marking, flags, reflectors etc. for safety of general traffic movement, neighbouring settlements and pedestrians	• Maintain record and to replace the damaged / broken reflector/ barricade tapes	Contractor/ Thanjavur Municipal Corporation	PID/PMU
2.19	Clearing of site and restoration	• On completion of the works, the left-over construction materials should be removed by the contractor from project site for reuse/ proper disposal. • All temporary structures will be cleared away, all rubbish cleared, excreta or other disposal pits or trenches filled in and effectively sealed off and the site left clean and tidy, at the contractor's expenses, to the entire satisfaction of the ULB.	• Site photographs, before and after completion of the works • Site inspection report	Contractor / Thanjavur Municipal Corporation	PID/PMU

Table 36: Pre-construction and Construction Stage Environmental Monitoring Plan

Monitoring Field	Monitoring Location	Monitoring Parameters	Frequency	Responsibility
Construction disturbances, nuisances, public and worker safety	All work sites ((i) Resettlement Construction works in Vallam, (ii) Building demolishing works in Big temple moat area, Thanjavur and (iii) Regeneration of water body/ canal in Thanjavur)	(i) Implementation of construction stage EMP including dust control, noise control, traffic management, and safety measures. (ii) Site inspection checklist to review implementation is appended at **Appendix 17**	Weekly during construction	Contractor under the supervision of PID (sampling locations shall be identified by the Environment specialist of PID)
Ambient air quality	Pre-Construction Stage: one sample at each location Construction stage: two samples at each location Sampling locations: (i) Resettlement Construction works in Vallam, (ii) Building demolishing works in Big temple moat area, Thanjavur and (iii) Regeneration of water body/ canal in Thanjavur Sampling method: At the work sites during pre-construction stage and 50 m downwind direction near the work sites during the construction stage	PM_{10}, $PM_{2.5}$ NO_2, SO_2 and CO	(i) Once before start of construction (pre-construction) (ii) Monthly monitoring during peak construction activity, which will be followed by quarterly monitoring (till the project completion).	Contractor under the supervision of PID (sampling locations shall be identified by the Environment specialist of PID). The environmental specialist (PID), shall decide the frequency of the monitoring as per the construction schedule
Ambient noise	Similar to ambient air quality locations and sample size including methodology.	Day time and night time noise levels	(i) Once before start of construction (pre-construction) (ii) Monthly monitoring during peak construction activity, which is followed by quarterly monitoring (till the project	Contractor under the supervision of PID (sampling locations shall be identified by the Environment specialist of PID). The environmental specialist (PID), shall decide the frequency of the monitoring as per the

Monitoring Field	Monitoring Location	Monitoring Parameters	Frequency	Responsibility
			completion).	construction schedule
Surface water quality	Pre-Construction Stage: one sample at each location Construction stage: One sample at each location Sampling locations: (i) Building demolishing works in Big temple moat area, Thanjavur and (ii) Regeneration of water body/ canal in Thanjavur	pH, Oil and grease, Cl, F, NO_3, TC, FC, Hardness, Turbidity BOD, COD, DO, E-coli, Total Alkalinity, Heavy metals and Pesticides.	Every quarter during construction stage (till the project completion)	Contractor under the supervision of PID (sampling locations shall be identified by the Environment specialist of PID)
Environmental statement for each financial year ending 31 March in Form V	TNSCB official website	As per Environment (Protection) Rules, 1986	Annual (Financial Year)	PID/ PMU

Table 37: Operation Stage Environmental Monitoring Plan

Monitoring field	Monitoring location	Monitoring parameters	Frequency	Responsibility
Ambient air quality	Two samples at Vallam resettlement site Sampling method: one sampling location should be located at 50 m downwind direction from the Vallam site and another sampling location should be located within the premises	PM_{10}, $PM_{2.5}$ NO_2, SO_2 and CO	Every quarter during operation (for 2 years)	Contractor under the supervision of PID during the DLP
Ambient noise	Similar to ambient air quality location and sample size and same methodology.	Day time and night time noise levels	Every quarter during operation (for 2 years)	Contractor under the supervision of PID during the DLP
Surface water quality	Two sample in the water body / Canal (Regeneration Site)	pH, Oil and grease, Cl, F, NO_3, TC, FC, Hardness, Turbidity BOD, COD, DO, E-coli, Total Alkalinity, Heavy metals and Pesticides.	Every quarter during operation (for 2 years)	Contractor under the supervision of PID during the DLP
Water quality (potable water supplied by TWAD)	Operation Stage: One sample at each water sump	pH, Oil and grease, Cl, F, NO_3, TC, FC, Hardness, Turbidity BOD, COD, DO,E-coli, Total Alkalinity ,heavy metals and pesticides.	Monthly monitoring	TWAD under the supervision of PID's (Cost for monitoring should be borne by the TWAD)
STP (Treated Water)	Operation Stage: Two water samples to be collected at (i) Inlet and (ii) outlet from the STP. One sludge sample should be collected	• Total suspended solids, pH, Oil and grease, Ammonical nitrogen, Biochemical Oxygen, Dissolved Oxygen, and Phenolic compounds (as C_6H_5OH) • Sludge sample should be tested for Fecal Coliforms/ pathogenic bacteria	Monthly monitoring	STP service provider/ third party monitoring under the supervision of PID's (Cost for monitoring should be borne by the STP service provider)
Environmental statement for each financial year ending 31 March in Form V	TNSCB official website	As per Environment (Protection) Rules, 1986	Annual (Financial Year)	PID/ PMU

B. Implementation Arrangements

175. TNSCB will be responsible for the management, coordination and execution of all subproject activities funded under IRSHUPSP. The Government of Tamil Nadu has approved the formation of the Project Management Unit (PMU) for the project vide G.O.(2D) No.27, H&UD(SC2(2)) Department, dated: 12 February 2019.

176. **Project Management Unit (PMU)**. The PMU will be headed by Joint Managing Director/ Project Director and will be assisted by the Chief Engineer, Superintending Engineer and the Executive Engineer. The PMU will design the infrastructure, manage the tendering of contracts, supervise the construction / demolition process, assure the technical quality of design and construction, provide advice/ assistance on institutional capacity development and ensure subproject compliance to ADB 2009, EARF, RF and loan covenants. The PMU shall appoint the contractors to build the infrastructure elements and will manage the construction and commissioning activities. The PMU will seek government clearance for submission and disclosure of the environmental, social and resettlement monitoring reports to ADB. To ensure effective implementation of environmental safeguards procedures, an environmental consultant will be assigned to the environmental team of the PMU. The environmental consultant will be supported by an Assistance Executive Engineer and two (2) Assistant Engineers who will be full time employees of the TNSCB. The PMU will be responsible for the following environmental safeguard activities:

(i) Ensure subproject compliance to GoI, GoTN statutory and legal environmental requirements, ADB SPS 2009, the project EARF, and loan covenants
(ii) Ensure subprojects conforms to exclusion criteria and subproject selection guidelines as stipulated in the EARF
(iii) Review and approve subproject category for environment
(iv) Review and approve subproject IEE studies and reports and EMPs; ensure that updated subproject IEEs and EMPs reflect final subproject detailed design and submit to ADB for approval
(v) Check whether all relevant permits / environmental clearances/approvals as per GoI and GoTN are obtained in a timely manner
(vi) Ensure that full IEE studies and EMPs are included in bidding documents, contract clauses and civil works
(vii) Ensure an efficient subproject implementation in line with IEE studies and reports and EMPs with adequate budget
(viii) Review and approve quarterly environmental monitoring reports submitted by PIDs (Environment / Social Cell) and submit to ADB
(ix) Support the preparation of quarterly and annual monitoring reports and submit to ADB
(x) Ensure effective GRM set up and monitor grievances redress process and ensure timely redress
(xi) Ensure adequate awareness campaigns, information disclosure and additional consultations are held within affected communities / host communities to minimize resistance and ensure hassle free transition for the project beneficiaries to new resettlement sites
(xii) Periodical review of safeguards related loan covenants, and the compliance in project implementation
(xiii) Organize periodic capacity building and training programs for subproject staff in safeguards

(xiv) Ensure that subproject activities are synchronized between the RPs and EMP implementation
(xv) Ensure that any damage to areas and infrastructure outside the agreed work sites (Corridor of Impact assessed in RP) will be restored to pre-construction conditions and will be subject to compensation at contractor cost and through written agreement with the land owner, as applicable
(xvi) Ensure availability of budget for safeguards activities
(xvii) Ensuring disclosure of EARF, IEEs and EMPs, and monitoring documents
(xviii) Ensure that IEE studies and GoI EIA studies for a subproject is prepared concurrently to avoid any inconsistencies and ensure robust environmental assessment is undertaken.

177. **Project Implementation Divisions (PIDs)**. The PMU will be supported by the Project Implementation Unit Circle (PIU) and a total of three (3) PIDs, established at Madurai, Salem and Villupuram for implementation of IRSHUPSP. The Superintending Engineering of the PIU Circle will be in charge of all PIDs in the Circle. Each of the PIDs will be headed by a PID Head or Executive Engineer. The PIU Circle and PIDs will be responsible for the implementation, management and monitoring of the subprojects and supervision of contractors and all day-to-day activities in the field. The PID located in Salem will be responsible for Implementation, management and monitoring of the Vallam Resettlement site.

178. To ensure effective implementation of environmental safeguards procedures, three (3) environmental specialists will be hired as independent consultants and assigned to the Environment Cell of each PID. The environmental specialist will be supported by one (1) Assistant / Junior Engineer that will be full time employee of the TNSCB. PID (Environment Cell) will be responsible for the following environmental safeguard activities.

(i) Identify/select subprojects in compliance with the key exclusion criteria and subproject selection guidelines stipulated in EARF
(ii) Conduct regular site visits for overseeing compliance with safeguards
(iii) Prepare screening checklists and submit to PMU for categorization; update checklist and category as and when required to reflect subproject changes, and report to PMU
(iv) Work closely with design teams to include environmental considerations in subproject location, design and technical specifications.
(v) Identify and obtain statutory environmental clearance/permissions/approvals required for subproject
(vi) Include standards/conditions, if any, stipulated in regulatory clearances, consents in the subproject detailed design
(vii) Conduct environmental baseline surveys
(viii) Prepare subproject IEE studies and reports and EMPs and submit to PMU for approval
(ix) Update subproject IEE studies and reports and EMPs to reflect any changes in subproject during detail design / implementation; IEE shall reflect the final subproject design; IEE shall also be updated in case of any unanticipated impacts
(x) Conduct adequate awareness campaigns are held with affected persons and within the host communities to minimize resistance and ensure hassle free transition for the affected persons / resettled households to new locations

(xi) Conduct meaningful consultation in compliance with the EARF; disclose relevant information on safeguards to stakeholders, affected people etc. reflect inputs from public consultation in subproject IEE studies and reports and EMPs
(xii) Integrate EMP into the bid and contract documents
(xiii) Review and approval of contractor's site specific EMP (e.g., C-EMP / D-EMP/ R-EMP), individual sub-plans and SOMPs as indicated in Appendix 3 of EARF.
(xiv) Ensure implementation of subproject C-EMP / D-EMP / R-EMP, individual sub-plans and SOMPs as indicated in Appendix 3 of EARF by contractors
(xv) Establish GRM at divisional level; coordinate grievance redress process, registration, records, information dissemination, etc., and ensure timely actions by all parties; report to PMU
(xvi) Conduct training and capacity building activities (workshops, hands-on trainings, visits etc.) to contractors and field level staff as well as participating ULBs or PWDs (as necessary) in C-EMP/D-EMP/R-EMP, individual sub-plans and SOMPs implementation.
(xvii) Undertake internal monitoring and supervision and record observations throughout the subproject implementation period.
(xviii) Review and approval of contractor's monthly report, consolidation into quarterly progress reports and submission to PMU
(xix) Submit periodic monitoring reports[21] to the PMU, who will then submit these to the ADB.

179. **Contractors.** Contractors will appoint their own Contractor Environment, Health and Safety (C-EHS) and Contractor Grievance Redressal Mechanism (C-GRM) staff as well as Contractor Asbestos Containing Materials (C-ACM) staff for construction works at resettlement sites, demolition sites / removal of encroachments and regeneration works.[22] All the contractors will be required to prepare a site-specific EMP (C-EMP / D-EMP /R-EMP) and Standard Operation and Maintenance Plans (SOMP) manuals. The contractors will bear the costs of preparing these site-specific plans included in the EMP. The contracts will not be awarded until the SEIAA has approved all environmental clearances, other relevant permits and clearances have been obtained, ADB has approved the subproject IEEs and EMPs and corresponding subproject EMPs are included in the bid and contract documents. The following are the key safeguards tasks for contractors.

(i) Submit site specific EMP for construction, demolition and regeneration works, individual sub-plans and SOMPs to PID
(ii) Attend training and capacity building sessions
(iii) Conduct orientation and daily briefing sessions to workers on EHS
(iv) Ensure that appropriate worker facilities (workers accommodation / camps) are provided at the work sites in line with this EARF
(v) Register and maintain records of all work-related accidents, and undertake remedial actions to mitigate/minimize recurrence
(vi) Implement EMP measures and report to PIDs if any new impacts are surfaced; seek guidance from PID as required in EMP implementation
(vii) Conduct environmental monitoring (air, noise, etc.) as per the monitoring plan
(viii) Prepare monthly EMP monitoring reports and submit to PID

[21] The I periodic monitoring report will focus on the progress of implementation of the safeguard, issues encountered and measures adopted, follow-up actions required, if any, as well as the status of compliance with subprojects election criteria and relevant loan covenants.
[22] C-ACM staff appointment will be for demolition / removal of encroachment works only.

(ix) Address any grievances effectively and in timely manner

180. The PMU and PIDs will ensure that the contractors are aware of their obligations including specific provisions requiring contractors to comply with: (i) all applicable labour laws and core labour standards on (a) prohibition of child labour as defined in national legislation for construction and maintenance activities; construction site should not hire any child below 18 years of age; (b) equal pay for equal work of equal value regardless of gender, ethnicity, or caste including no discrimination against pregnant women and (c) prohibition of forced labour; and with (ii) the requirement to disseminate information on health & safety risks due to transmittable diseases, including HIV/AIDS and COVID-19,[23] to employees

181. If the TNSCB PMU fails to comply with the loan and legal agreements on safeguards requirements, ADB will seek corrective measures and work with the TNSCB PMU to achieve compliance. If the TNSCB PMU fails to re- establish compliance, then ADB may exercise remedies, including suspension, cancellation or acceleration of maturity that are available under ADB legal agreements. Before resorting to such measures, ADB will use other available means to rectify the situation satisfactory to all parties to the legal agreements, including initiating dialogue with the parties concerned to achieve compliance with legal agreements. Further details on institutional roles and responsibilities for safeguards implementation are presented in Table 38.

Table 38: Institutional Roles and Responsibilities for Safeguards Implementation

Project Stage	Tasks	Responsible Agency	
		Implementation	**Supervision**
Subproject identification and finalization	• Ensuring that the key exclusion criteria and environmental guidelines for subproject selection are adhered to • Prepare REA and No Mitigation (Scoping) checklists • Categorize the subproject	PIDs (Environment Cell)	PMU (Environment Team)
Preliminary design	• Identify GoI and GoTN regulatory requirements (clearances/approvals/ consents etc.) • Check latest amendments to EIA • Notification 2006 for environmental clearance requirement and subproject categorization (B1 / B2) • Preparation of subproject IEE studies and reports and EMPs	PIDs (Environment Cell)	PMU (Environment Team)
	• Delineating and mapping of catchment areas of encroached water bodies and/or areas vulnerable to flooding hazards and mapping	PID (Environment Cell)	PMU (Environment Team)

[23] The Ministry of Health and Family Welfare, Government of India has released the Environmental and Social Management Framework for India #COVID19 Emergency Response and Health Systems Preparedness Project; particularly Annex IV: India COVID-19 Project – Clauses for Inclusion in Civil Works Contracts; The document can be accessed here: https://www.mohfw.gov.in/pdf/EnvironmentalandSocialManagementFrameworkforindiaCOVID19EmergencyResponseandHealthSystemsPreparednessProjectP173836.pdf The Ministry of Law and Justice, Government of India has released the Occupational Safety, Health, Working Conditions Code, No. 37, 28th September 2020; the document can be accessed here: http://dgms.gov.in/writereaddata/UploadFile/Occupational Safety Health Code Act 2020 as assented by the President of India637370849494550871.pdf

Project Stage	Tasks	Responsible Agency	
		Implementation	**Supervision**
	• Delineating and mapping ROW for water canals / channels		
	Conduct survey and develop database for information management for: • Number of project beneficiaries • full demographic and socio-economic profiles of project beneficiaries • complete inventory of livelihood and asset losses due to physical and economic displacement of the project beneficiary • information on environmental impacts of the subproject at the beneficiary-level	PID / PMU with support of other public / state agencies	PMU
Detailed design	• Mitigation measures specified in subproject IEE studies and reports incorporated in subproject detailed design • Updating of subproject IEE studies and reports to integrate any changes in subproject after approval of studies and reports	PIDs (Environment Cell)	PMU (Environment Team)
	• Conducting capacity development activities for staff, hired workers, contractors	PIDs (Environment Cell)	PMU (Environment Team)
	• For subprojects involving facilities and/or business activities that already exist or are under construction, undertake an environment and/or social compliance audit, including on-site assessment, to identify past or present concerns related to impacts on the environment. Where non-compliance is identified, a Corrective Action Plan shall be prepared, and agreed on by ADB and the TNSCB PMU (Environment Team) and implemented, accordingly.	PIDs (Environment Cell)	PMU (Environment Team)
	• Obtain all necessary environmental clearances, consents, and no objection certificates (NOCs) as per the national and state legal framework prior to bid invitation and/or award of contract[24]	PIDs (Environment Cell)	PMU (Environment Team)
	• Meaningful consultations carried out in a manner commensurate with the impacts on affected stakeholders. The consultation process and its results to be documented and reflected in the subproject IEE reports.	PIDs (Environment Cell / Social Cell) /	PMU (Environment Team / Social Impact Assessment Team)
	Information Disclosure: For Category B • Disclosure on the TNSCB website of the	PIDs (Environment	PMU (Environment

[24] TNSCB will take into cognizance that it is a best practice to obtain all necessary environmental clearances, consents, etc., prior to bid invitation; however, these must be clearly obtained prior to award of contract.

Project Stage	Tasks	Responsible Agency	
		Implementation	**Supervision**
	draft subproject IEEs and EMPs; updated IEEs and EMPs including corrective action plans; environmental monitoring reports. • Disclosure of draft IEE (and EMP) in a timely manner, in an accessible place and in a form and language understandable to affected people and other stakeholders. Any revised IEE (and EMP) should be disclosed to affected people and other stakeholders.	Cell) PMU (Environment Team)	Team)
	• Disclosure on ADB website of the final subproject IEE studies and reports and EMPs; updated subproject IEE studies and reports and EMPs and corrective action plans; environmental monitoring reports.	ADB	ADB
	• Incorporate final subproject EMP into bid/contract documents	PIDs (Environment Cell)	PMU (Environment Team)
Appraisal	• EMP and other environmental covenants are incorporated into the sector loan agreement and project administration memorandum (PAM) • Approval of subproject IEE studies and reports and EMPs prior to invitation of bids • All clearances are in place prior to invitation of bid / award of contracts / start of work	PIDs (Environment Cell)	PMU (Environment Team)
	• Effective GRM established prior to award of contracts	PIDs (Environment Cell)	PMU (Environment Team)
Approval	ADB will be responsible for regular review and timely approval of subproject IEE studies and reports and EMPs (draft and final)	ADB	-
Bid Invitation and Award of Contracts	• Approval of subproject IEE studies and reports and EMPs a must prior to bid invitations • Subproject EMPs to be incorporated into contracts. • Ensure all statutory national and state clearances prior to award of contracts	PIDs (Environment Cell)	PMU
Subproject Implementation	• Development and approval of site-specific Construction-EMP and Demolition-EMP by contractors and individual sub-plans • Implementation of above EMP including monitoring and reporting plans by contractors and submission of monthly reports to PIDs (Environment Cell), • Submission of Quarterly progress reports (Environment Cell) to PMU (Environment Team) including corrective action plan	Contractors PIDs (Environment Cell)	PMU

Project Stage	Tasks	Responsible Agency	
		Implementation	Supervision
	where a non-compliance is Identified • Conduct public consultation and awareness programs as per EARF • Overall compliance monitoring and submission of quarterlymonitoring report during construction stage and annual reporting during operation stage by PMU (Environment Team) to ADB • ADB will be responsible for reviewing regular monitoring reports	PMU (Environment Team)	

182. **Training Needs**. The following Table 39 presents the outline of capacity building program to ensure EMP implementation. These capacity building and trainings will be conducted at the offices of PMU and PIDs by the environmental safeguards specialist of PID, which are part of project implementation set-up, and therefore no separate or additional costs are envisaged. Adequate costs are already considered in project's capacity building program. The detailed program and specific modules will be customized for the available skill set after assessing the capabilities of the target participants and the requirements of the project by the PMU.

Table 39: Outline Capacity Building Program on EMP Implementation

Sl.no	Description	Target Participants and Venue	Cost and Source of Funds
1	Introduction and Sensitization to Environmental Issues (1 day) • ADB Safeguards Policy Statement • Government of India and Tamil Nadu applicable safeguard laws, regulations and policies including but not limited to core labor standards, OH and S, etc. • Incorporation of EMP into the project design and contracts • Monitoring, reporting and corrective action planning	All staff and consultants (if any) involved in the subproject PMU Office (combined program for all PIDs)	Included in the overall program cost
2	EMP implementation (1/2 day) • EMP mitigation and monitoring measures • Roles and responsibilities • Public relations, - Consultations • Grievance redress • Monitoring and corrective action planning • Reporting and disclosure • Construction site standard operating procedures (SOP) • Chance find (archeological) protocol • Work near ASI monuments • AC pipe protocol • Traffic management plan • Waste management plan • Site clean-up and restoration	All PID staff, contractor staff and consultants (if any) involved in the subproject PID Office	To be conducted by PID (Environmental Specialist) at the PID office; part of project implementation cost

Sl.no	Description	Target Participants and Venue	Cost and Source of Funds
3	Contractors Orientation to Workers (1/2 day) • Environment, health and safety in project construction	• Once before start of work, and thereafter regular briefing every month once. • Daily briefing on safety prior to start of work • All workers (including unskilled laborers) • Awareness & on-site training for workers and staff on sludge handling and disposal in existing STP repair work	Contractors' EHS officer to conduct program, with guidance of PID

C. Monitoring and Reporting

183. The prepared IEE is based on the draft design for the resettlement site and likely construction activities in the demolishing sites and water body regeneration works. Hence upon finalising the detailed design for the resettlement site and preparation of the work plan for the demolishing sites and water body regeneration sites, this IEE has to be reviewed based on the updated information for the subproject. This includes as soon as further information on the water supply works are made available, this IEE needs to be updated and a separate EMP has to be prepared by the environment specialist PID, submitted to the environmental consultant PMU for review. Further consultations (that have been prevented due to COVID-19) at various places (including at 4 encroachment sites and around the resettlement site) have to be conducted and the outcomes/ feedback and suggestions shared by the communities have to be incorporated in the project design, if not appropriate response have to be shared with the communities to their satisfaction. The revised draft IEE will then need to be submitted to ADB for concurrence. The EMP will need to be adopted by the water work construction contractor (appointed by TWAD) which has to be updated.

184. All subproject EMPs will have internal monitoring. The PIDs (Environment Cell) with support of the PMU (Environment Team) will conduct internal environmental monitoring for each subproject and provide the environment input based on site inspections, compliance checks and prepare the subproject Quarterly Progress Reports (QPRs) for submission to the PMU for final submission to ADB till the subproject completion report is issued. Monitoring will also encompass tracking progress on regeneration works undertaken by the PMU of previously encroached water bodies / channels and surrounding areas.

185. The environmental monitoring report[25] for submission to ADB shall be on quarterly basis during construction and on an annual basis during operation (refer to Appendix 18 for subproject environmental monitoring report template). Environmental monitoring reports will be required to be submitted to ADB within 30 days from the end of the relevant period. The environmental monitoring reports will be publicly disclosed on ADB public website. Reporting to ADB will continue until a project completion report. is completed.

186. Types of subproject monitoring that may be conducted under subproject specific EMP will include:

[25] The environmental reporting will cover EMP implementation, focusing on compliance and any needed corrective actions.

(i) **Project readiness monitoring**. To be conducted by the PIDs (Environment Cell)
(ii) **Environmental monitoring**. To be conducted by PIDs (Environment Cell) and contractors across all stages of project implementation as described in the subproject specific EMP and assessing compliance with applicable GoI environmental quality standards and/or International standards and best practices
(iii) **Compliance monitoring**. To be conducted by the PMU / PIDs to verify EMP compliance across all stages of subproject implementation
(iv) **Demolition works monitoring**. To be conducted by the PMU (Environment Team) / PIDs (Environment Cell).
(v) **Regeneration works monitoring**. To be conducted by the PMU (Environment Team) / PIDs (Environment Cell).

187. ADB will oversee subproject compliance on the basis of quarterly (during construction) and annual (during operation) environmental monitoring reports provided by the PMU (Environment Team) and site visits (generally one to two times per year). For any non-compliance, ADB will make suitable recommendations for undertaking remedial measures for mid-term correction and improvement, if required. ADB's monitoring and supervision activities are carried out on an on-going basis until a Project Completion Report is completed.

188. The contractor(s) will submit monthly progress reports to the PIDs (Environment Cell) on C-EMP/ D-EMP / R-EMP implementation, and SOMPs/ O&M EMP, which will inform the quarterly safeguards monitoring reports as part of the project QPR. The contractor monthly progress reports will include compilation of daily monitoring sheets that is duly signed by C-EHS. The template for daily monitoring sheet for contractors during construction stage is provided as Appendix 19.

189. During operations of the new housing development and regeneration works, the contractors will also submit monthly progress reports to PIDs (Environment Cell) on New Housing Development SOMP/ O&M EMP and Regeneration Works for the first year of operation and quarterly progress reports thereafter. These will inform the annual safeguard monitoring reports. The contractor's monthly (and quarterly) progress reports will include compilation of daily monitoring sheets corresponding to the operation of assets created. The subproject specific IEE will include a template for daily monitoring sheets during operation stage.

D. EMP Implementation Cost

190. As part of good engineering practices in the project, there have been several measures such as safety, signage, dust suppression, procurement of personal protective equipment, provision of drains, etc. and the costs for which will be included in the design costs of specific subprojects. Therefore, these items of costs have not been included in the IEE budget. Only items not covered under budget for construction are considered in the IEE budget.

191. This is a large construction project and hence is expected to cause significant air, water and noise pollution. However, the implementation of the mitigation measures and required environmental reporting and monitoring in line with the environmental monitoring plan and included within the bidding and contract documents as separate line items will ensure that the environmental impacts will not be significant or irreversible. An appropriate Environmental Management Budget has been estimated to carry out the monitoring requirements.

192. The cost of water sprinkling for dust suppression and providing personal protective equipment to construction workers shall be borne by contractor as part of conditions of contract. In addition, the sources of funds for mitigation measures including monitoring during the construction stage are also to be borne by the contractor. These are deemed to be included as part of the contract price amount quoted by the contractor for the works. The costs of components for monitoring in operation stage and the capacity building costs are to be funded by the PMU. The EMP cost is given in the Table below.

Table 40: Indicative EMP Budget

Sl. No.	Particulars	Stages	Unit	Total Number	Rate (₹)	Cost (₹)	Source of fund
A. Monitoring Measures (Vallam Resettlement Site)							
1	Air quality monitoring	Pre-construction	Per sample	1	10,000	10,000	PID
2	Noise Levels	Pre-construction	Per location	1	4,000	4,000	PID
3	Water Quality	Pre-construction	Per Sample	1	10,000	10,000	PID
4	Ambient Air Quality	Construction	Per Sample	24	10,000	2,40,000	Contractor budget
5	Ambient Noise Quality	Construction	Per Sample	24	4,000	96,000	Contractor budget
6	Water Quality	Construction	Per Sample	24	10,000	2,40,000	Contractor budget
7	Ambient Air Quality	Post Construction	Per Sample	20	10,000	2,00,000	Contractor budget (DLP)
8	Ambient Noise Quality	Post Construction	Per Sample	20	4,000	80,000	Contractor budget (DLP)
9	Water Quality	Post Construction	Per Sample	20	10,000	2,00,000	Contractor budget (DLP)
Sub- Total (A)						**10,80,000**	
B. Monitoring Measures (Demolishing Sites)							
1	Air quality monitoring	Pre-construction	Per sample	4	10,000	40,000	PID
2	Noise Levels	Pre-construction	Per location	4	4,000	16,000	PID
3	Water Quality	Pre-construction	Per Sample	4	10,000	40,000	PID
4	Ambient Air Quality	Construction	Per Sample	24	10,000	2,40,000	Contractor budget
5	Ambient Noise Quality	Construction	Per Sample	24	4,000	96,000	Contractor budget
6	Water Quality	Construction	Per Sample	24	10,000	2,40,000	Contractor budget
7	Ambient Air Quality	Post Construction	Per Sample	4	10,000	40,000	Contractor budget (DLP)
8	Ambient Noise Quality	Post Construction	Per Sample	4	4,000	16,000	Contractor budget (DLP)
9	Water Quality	Post Construction	Per Sample	4	10,000	40,000	Contractor budget (DLP)

Sl. No.	Particulars	Stages	Unit	Total Number	Rate (₹)	Cost (₹)	Source of fund
Sub- Total (B)						**7,68,000**	
C. Monitoring Measures (Water Body Regeneration Works)							
1	Air quality monitoring	Pre-construction	Per sample	4	10,000	40,000	PID
2	Noise Levels	Pre-construction	Per location	4	4,000	16,000	PID
3	Water Quality	Pre-construction	Per Sample	4	10,000	40,000	PID
4	Ambient Air Quality	Construction	Per Sample	96	10,000	9,60,000	Contractor budget
5	Ambient Noise Quality	Construction	Per Sample	96	4,000	3,84,000	Contractor budget
6	Water Quality	Construction	Per Sample	96	10,000	9,60,000	Contractor budget
7	Ambient Air Quality	Post Construction	Per Sample	4	10,000	40,000	Contractor budget (DLP)
8	Ambient Noise Quality	Post Construction	Per Sample	4	4,000	16,000	Contractor budget (DLP)
9	Water Quality	Post Construction	Per Sample	4	10,000	40,000	Contractor budget (DLP)
Sub- Total (C)						**24,96,000**	
D.	**Capacity Building – Training Cost** (includes cost estimate for the subproject components (including resettlement site construction, demolishing works and water body regeneration works), and not included in the package costs)						
1	Sensitization Workshop	Pre-Construction	L.S			1,50,000	PMU
2	Training Session I	Construction	L.S			1,00,000	PMU
3	Training Session II	Construction	L.S			1,00,000	PMU
Sub -Total (D)						**3,50,000**	
Total (A+B+C+D) ₹						**46,94,000**	

X. CONCLUSION AND RECOMMENDATIONS

193. The proposed subproject is in line with the sub-project selection criteria for the program. The subproject conforms to all GoI and ADB regulations, policies, and standards including all necessary government permits and clearances.

194. During the subproject construction, there are possible negative environmental impacts envisaged. As per the Initial Environmental Examination (IEE), the specific management measures laid down in the EMPs will effectively address any likely environmental impacts due to the subproject. The effective implementation of the measures proposed will be ensured through building enhanced capacity through training on environmental management within the PIDs and PMU with overall supervision for environmental issues by the environmental consultant within the PMU. Further, the environmental monitoring plans provide adequate opportunity towards course correction to address any residual impacts during construction or operation stages.

195. The draft IEE carried out for the subproject shows that the proposed components/ interventions will result in net environmental benefits, and that any likely environmental impact can be addressed through proper location, planning and design of the proposed subproject; control of construction activity and mitigation measures. The EMPs provide for mitigation of all identified impacts and reflected within the contract clauses for the environmental provisions will be part of the civil works contracts. Consultation on the proposed designs have been undertaken with stakeholders and no significant issues requiring redress in terms of environmental safeguards are known to exist at present. However, further consultations (that have been prevented due to COVID-19) at various places (including at 4 encroachment sites and around the vallam resettlement site) have to be conducted and the outcomes/ feedback and suggestions shared by the communities have to be incorporated in the project design, if not appropriate response have to be shared with the communities to their satisfaction. Accordingly, this IEE have to be revised.

196. The water supply to the resettlement site will be sourced from pumping main near Manakkarambai Village which is located at a distance of 18 km. For which water source sustainability study has been conducted by the TWAD. Being an associated activity to this subproject, once detailed design information is available (including the pump house, water supply pipeline and water storage units), the PID environmental specialist shall prepare the EMP in accordance with ADB SPS with assistance from the PMU environmental specialist. Accordingly, this IEE and EMPs will need to be revised and submitted to ADB for concurrence.

197. The positive benefits of this project is to provide affordable housing for the people who are living in the encroached areas (encroached water bodies), which is prone for seasonal flooding. This project also benefits low-income families and female-headed households. Based on the climate risk assessment and heat modelling, the building plan has been developed to withstand the climate change including the high temperature. The proposed infrastructure including the provision of toilets, water supply, electric connection, and community hall shall provide an improved standard of living. This IEE has been prepared based on the preliminary information and hence upon finalising the detailed design, this IEE and EMPs (including the BoQ) have to be updated and relevant contractor clauses should be included in the EMPs.

198. Based on the findings of the IEE, there are no significant impacts and the classification of the subproject as Category “B” is confirmed. No further special study or detailed environmental impact assessment (EIA) needs to be undertaken to comply with ADB SPS (2009).

Land Alienation Certificate

தஞ்சாவூர் மாவட்ட ஆட்சியர் அலுவலின் செயல்முறை ஆணைகள்

முன்னிலை மகேஸ்வரி ராவ், இ.ஆ.ப.

ந.க.எ2 /40909 /2017 நாள்:12.11.2020

பொருள் :	நில உரிமை மாற்றம் - தஞ்சாவூர் மாவட்டம் மற்றும் வட்டம் வல்லம் வடக்கு சேந்தி கிராம புல எண்207/1 -ல் 3.88.5 ஹெக்டேர்ல் சர்க்கார் புறம்போக்கு குவாரி வகைபாடுடைய நிலத்தில் - தமிழ்நாடு குடிசை மாற்று வாரிய அடுக்குமாடி குடியிருப்பு கட்டிடம் கட்ட நில உரிமைமாற்றம் செய்யக் கோரிய - நில உரிமை மாற்ற முன்மொழிவுகள் வரப்பெற்று * கேட்புத்தலைமையருக்கு முன்னதாக அனுமதி வழங்கி ஆணை பிறப்பித்தல் - தொடர்பாக.
பார்வை :	1. அரசாணை எண்.457 (வருவாய் துறை) (1.05.2) நாள்.13.11.2013 2. நிர்வாகப்பொறியாளர், தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம், திருச்சிராப்பள்ளி கோட்டம் கடித ந.க.5037/2017 அவர்கள் நாள்.02.01.2019 மற்றும் 22.05.2019 3. இவ்வலுவலக கடித ந.க.40909/2018/எ2 நாள்.15.05.2019. 4. அரசாணை (நிலை) எண்.535 வருவாய் மற்றும் பேரிடர் மேலாண்மைத் துறை நில முடிவு அலகு (நிமு.5(2) பிரிவு நாள்.23.10.2020 5. தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் ந.க.10/2019 நாள்.09.11.2020 6. தஞ்சாவூர் வட்டாட்சியர் ந.க. 2532/2020 நாள்.05.11.2020 7. அரசாணை (நிலை) எண்.976 வருவாய் துறை நாள்.20.10.1997 8. அரசாணை (நிலை) எண்.67 வருவாய் (நி.மு (5(2)) துறை நாள்.04.02.2000 9. அரசாணை (நிலை)எண்.136 வருவாய் துறை நாள்.25.04.2017 10. அரசாணை (நிலை)எண்.172 வருவாய் துறை நாள்.09.05.2017 11. அரசாணை (நிலை)எண்.136 வருவாய் துறை நாள்.25.04.2017 12. அரசாணை (நிலை) எண்.241 வருவாய் மற்றும் பேரிடர் மேலாண்மை துறை நிமு(5(1) நாள்.16.05.2020 13. இதர தொடர்புடைய ஆவணங்கள்

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ஆணை

தஞ்சாவூர் மாவட்டம் மற்றும் வட்டம் வல்லம் வடக்கு சேந்தி கிராமம், சர்க்கார் புறம்போக்கு குவாரி என்ற வகைபாடுடைய புலஎண்.207/1-ல் 3.88.50 ஹெக்டேர்ல் பரப்பில் ஆசிய வளர்ச்சி வங்கி நிதியுதவியுடன் நகர்ப்புற ஏழைகளுக்கு நிலையான வீடு வழங்குதல் திட்டத்தின் கீழ் தஞ்சாவூர் மாநகராட்சிக்குட்பட்ட பெரியகோவில் அகழி பகுதியை ஆக்கிரமித்து குடியிருந்து வரும் 960 குடியிருப்புதாரர்களுக்கு தஞ்சாவூர் மாநகராட்சி முலம் எழில்மிகு நகரம் (Smart City) திட்டத்தை செயல்படுத்திட ஏதுவாக அடுக்குமாடி குடியிருப்புகள் கட்டுவதற்கு நிலஉரிமை மாற்றம் செய்திடக் கோரி பார்வை-2 ல் காணும் தமிழ்நாடு குடிசை மாற்று வாரியம் நிர்வாகப்பொறியாளரிடமிருந்து விண்ணப்பம் மற்றும் அரசு விதிக்கும் நிபந்தனைகளை ஏற்றுக்கொள்வதற்கான சம்மத கடிதம் ஆகிய ஆவணங்களை அளித்துள்ளார். பார்வை-3ல் காணும் கடிதம் முலம் நில உரிமைமாற்ற முன்மொழிவுகள்

அனுப்பிடக்கோரியதற்கிணங்க முன்மொழிவுகளை பரிசீலனை செய்து கருத்து வழங்க தஞ்சாவூர் வருவாய் கோட்ட அலுவலரிடமிருந்து முன்மொழிவு வரப்பெற்றுள்ளது. அதன் விபரம் பின்வருமாறு

நிலம் கோரும் துறை

தஞ்சாவூர் மாவட்டம் மற்றும் வட்டம் வல்லம் வடக்கு சேத்தி கிராமத்தில் புலஎண்207/1 ல் அரசு புறம்போக்கு குளம் என்ற வகைபாடுடைய புலத்தின் திட்டப்பரப்பு 3.88.0 ஹெக்டேர்ஸ் பரப்பில் ஆசிய வளர்ச்சி வங்கி நிதியுதவியுடன் நகர்ப்புற ஏழைகளுக்கு நிலையான வீடு வழங்குதல் திட்டத்தின் கீழ் தஞ்சாவூர் மாநகராட்சிக்குட்பட்ட பெரியகோவில் அகழி பகுதியில் ஆக்கிரமித்து குடியிருந்து வரும் 960 குடியிருப்புதாரர்களுக்கு தஞ்சாவூர் மாநகராட்சி மூலம் எழில்மிகு நகரம் போலா (யு) திட்டத்தை செயல்படுத்திட ஏதுவாக அடுக்குமாடி குடியிருப்புகள் கட்டுவதற்கு நில உரிமை மாற்றம் செய்திட தேவையான உரிய விண்ணப்ப படிவம் மற்றும் அரசு விதிக்கும் நிபந்தனைகளை ஏற்றுக்கொள்வதற்கான சம்மத கடிதம் ஆகிய ஆவணங்களை தமிழ்நாடு குடிசை பகுதி மாற்று வாரிய மேற்பார்வை பொறியாளர் அளித்துள்ளார்.

நிலவகைமாற்றப் புலத்தின் தன்மை

நில உரிமை மாற்றம் செய்திட உத்தேசிக்கப்பட்டுள்ள புலஎண்.207/1 என்பது நிலஉடைமை பதிவு மேம்பாட்டு திட்ட அ-பதிவேட்டின்படி அரசு புறம்போக்கு குளம் என வகைப்படுத்தப்பட்டுள்ளது. இப்புலமானது அ-பதிவேட்டின்படி பின்வருமாறு உள்ளது.

வ. எண்	புல எண்	வகைபாடு	மண்வயணம்	தரம்	திட்டப்பரப்பளவு (ஹெக்)	தீர்வை	குறிப்பு
1.	207/1	ச.புறம்			3.88.5	------	குளம்

புலஎண். 207/1 ல் திட்டப்பரப்பளவு 3.88.5 ஹெக்டேர்ஸ் ஏற்கனவே உட்பிரிவு செய்யப்பட்டு உட்பிரிவு புலஎண். 207/5 ல் 0.41.5 ஹெக்டேர்ஸ் பரப்பளவு தேசிய நெடுஞ்சாலைத்துறைக்கு நிலஉரிமை மாற்றம் செய்யப்பட்டுள்ளது. தற்போது நிலவியலில் புலஎண்207/1 ல் 3.47.0 ஹெக்டேர்ஸ் நிலமானது தமிழ்நாடு குடிசை மாற்று வாரியத்திற்கு அடுக்குமாடி குடியிருப்புகள் கட்டுவதற்காக தெரிவு செய்யப்பட்டுள்ளது. இப்புலத்தில் 9 நபர்கள் வீடுகட்டி ஆக்கிரமணம் செய்யப்பட்டு சுமார் 30 ஆண்டுகளாக குடியிருந்து வருவதால் அவர்களால் ஆக்கிரமணம் செய்யப்பட்டுள்ள 0.20.0 ஹெக்டேர்ஸ் நீங்கலாக மீதமுள்ள 3.27.0 ஹெக்டேர்ஸ் பரப்பினை தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியத்திற்கு

அடுக்குமாடி குடியிருப்புகள் கட்டுவதற்கு தெரிவு செய்யப்பட்டுள்ளது என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

அ1 விளம்பரம்

நில உரிமை மாற்றம் செய்ய உத்தேசித்துள்ளது தொடர்பாக கடந்த 19.10.2020 அன்று வல்லம் சரக வருவாய் ஆய்வரால் தொடர்புடைய கிராமத்தில் "அ-1" விளம்பர அறிவிப்பு கிராம நிர்வாக அலுவலர் மூலமாக விளம்பரம் செய்யப்பட்டுள்ளது. நிலமாற்றம் செய்வது தொடர்பாக பொதுமக்களிடமிருந்து ஆட்சேபனை ஏதும் வரப்பெறவில்லை என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

கிராம நிர்வாக அலுவலர் மற்றும் பொதுமக்கள் வாக்கு மூலம்

நில உரிமை மாற்றம் செய்ய உத்தேசித்துள்ளது தொடர்பாக கிராம நிர்வாக அலுவலர் மற்றும் பொதுமக்கள் ஆகியோரிடம் வாக்குமூலம் பெறப்பட்டு இணைக்கப்பட்டுள்ளது. ஆட்சேபனை ஏதும் வரப்பெறவில்லை என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

தடையாணைச் சான்று

நிலவகைமாற்றம் செய்ய உத்தேசிக்கப்பட்டுள்ள புலம் தொடர்பாக கிராம நிர்வாக அலுவலரால் பராமரிக்கப்பட்டு வரும் தடையாணை புத்தகத்தில் பதிவுகள் ஏதும் மேற்கொள்ளப்படவில்லை என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார். தடையாணைச்சான்று இணைக்கப்பட்டுள்ளது.

உள்ளாட்சி மன்றத்தின் தீர்மானம்

நில உரிமை மாற்றப் புலமானது குவாரி என்ற வகைபாடுடைய புலம் என்பதனால் உள்ளாட்சி மன்றத்தின் தீர்மானம் பெற வேண்டிய தேவை எழவில்லை.

உள்ளாட்சிக் கட்டுப்பாட்டிலிருந்து விலக்களித்தல்

நில உரிமை மாற்றப் செய்திட உத்தேசிக்கப்பட்டுள்ள புலம் தமிழ்நாடு ஊராட்சிகள் சட்டம் - 1994 பிரிவு 134(2) ன் படி கிராம ஊராட்சியின் பராமரிப்பிற்காக ஒப்படைக்கப்பட்ட புறம்போக்கு நிலம் இல்லை என்பதால், ஊராட்சியின் கட்டுப்பாட்டிலிருந்து விலக்களிப்பு செய்யவேண்டிய தேவை எழவில்லை என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

முன்னுழைவு அனுமதி

நில உரிமை மாற்றம் செய்திட உத்தேசிக்கப்பட்டுள்ள புலம் பார்வை-1ன்படி தமிழ்நாடு காவல் வீட்டு வசதி கழகத்தால் உங்கள் சொந்த இல்லம் திட்டத்தின் கீழ் அடுக்குமாடி வீடுகள் அமைத்திட முன்னுழைவு அனுமதி வழங்கி ஆணையிடப்பட்டுள்ளது. இதனை தொடர்ந்து பார்வை-4ல் காணும் அரசாணையின்படி தமிழ்நாடு காவலர் வீட்டு வசதி கழகத்திற்கு வழங்கிய அனுமதியை ரத்து செய்து ஆணை பிறப்பிக்கப்பட்டுள்ளது.

உட்பிரிவு ஆவணங்கள்

நில உரிமை மாற்ற செய்ய உத்தேசிக்கப்பட்டுள்ள புலத்தில் நில உரிமை மாற்றம் கோரும் பரப்பளவானது பின்வருமாறு உட்பிரிவு மேற்கொள்ளப்பட்டு தஞ்சாவூர், வட்ட துணை ஆய்வாளர் கூராய்வு பதிவேடு எண்.33/20/டி(1)-ன் படி கூராய்வு மேற்கொள்ளப்பட்டுள்ளது. உட்பிரிவிற்கு முன்னரும் பின்னரும் பரப்பளவில் மாறுதல்கள் எதுவும் இல்லை.

உட்பிரிவிற்கு முன்னர்				உட்பிரிவிற்கு பின்னர்			
புல எண்	வகைபாடு	திட்டப் பரப்பு (ஹெக்.)	குறிப்பு	புலஎண்	வகைபாடு	திட்டப் பரப்பு (ஹெக்.)	குறிப்பு
207/1	ச.புறம்	3.47.0	குவாரி	207/1	அ.புறம்.	3.27.0	தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம்
				207/6	அ.புறம்	0.20.0	குவாரி
கூடுதல்		3.47.0		கூடுதல்		3.47.0	

நில உரிமை மாற்றம் செய்யப்படவுள்ள புலஎண்.207/1 ன் நான்கெல்லை விபரம்

திசைகள்	புலஎண் விபரம்
வடக்கு	புலஎண்.206 (தஞ்சாவூர் வல்லம் மருத்துவக்கல்லூரி சாலை) புலஎண்.208
தெற்கு	புலஎண்.207/5 தேசிய நெடுஞ்சாலை
கிழக்கு	புலஎண்.207/6., 210,208
மேற்கு	புலஎண்.206 தஞ்சாவூர் - வல்லம் சாலை

புராதனச் சின்னங்கள்

நில உரிமை மாற்றப்புலத்தில் புராதனச் சின்னங்கள், ஆலயங்கள், மசூதிகள், தேவாலயங்கள், மற்றும் மத உணர்வினைப் பாதிக்கக் கூடிய வழிபாட்டுத் தலங்கள், புராதனச் சின்னங்கள், கிணறுகள் மற்றும் மயானம் ஏதும் இல்லை எனவும், இந்து சமய அறநிலையத்துறைக்கோ அல்லது வ..க்பு

வரியத்திற்கோ சொந்தமான நிலங்கள் ஏதுமில்லை எனவும், மேலும், உயர் மின்னழுத்தக் கம்பி நில உரிமை மாற்றப்புலத்தின் குறுக்கே செல்கிறது என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார். மேற்கண்ட வந்தலாகது பிரதான சாலையிலிருந்து 10 அடி அளவு பள்ளமாக உள்ளது. எனினும் உடனடியாக கட்டிடம் கட்டுவதற்கு ஏற்ற வந்தலா உள்ளது என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

மரங்கள் மற்றும் கட்டிடங்கள்

நிலவகைமாற்றம் செய்ய உத்தேசிக்கப்பட்டுள்ள புலத்தில் மரங்கள் மற்றும் கட்டிடங்கள் எதுவும் இல்லை என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

கனிம வளத் துறையின் தடையின்மைச் சான்று

நில உரிமை மாற்றம் செய்திட உத்தேசித்துள்ள புலமான புலஎண்.207/1 என்பது குவாரி என்ற வகைபாடுடைய புறம்போக்கு நிலம் என்பதனால் தடையின்மைச் சான்று வழங்கிட உதவி இயக்குநர், புவியியல் மற்றும் சுரங்கங்கள் கேட்டுக்கொள்ளப்பட்டதில், மேற்கண்ட புலத்தினை நில ஆய்வு மேற்கொண்டு, புலஎண்.207/1ல் அருகில் குடியிருப்பு இருப்பதால் குவாரி பணி எதுவும் மேற்கொள்ள இயலாத நிலை உள்ளது என்றும், எனவே உங்கள் சொந்த இல்லம் திட்டத்தின் கீழ் தமிழ்நாடு காவல் வீட்டு வசதி வாரியத்திற்கு அடுக்குமாடி வீடுகள் கட்டிட தடை ஏதும் இல்லை என புவியியல் மற்றும் சுரங்கத்துறை உதவி இயக்குநர் ஏற்கனவே தடையின்மை சான்று அளித்துள்ளார். அதனடிப்படையில் மீண்டும் இத்திட்டத்திற்கு நில உரிமை மாற்றம் செய்திட தனியே தடையின்மை சான்று கோரிட வேண்டிய வினா எழவில்லை.

நிலவரிப்பு

நில உரிமை மாற்ற செய்ய உத்தேசிக்கப்பட்டுள்ள வந்தலாகது அரசு புறம்போக்கு குவாரி என்ற வகைபாட்டில் உள்ளது. எனவே இப்புலஎண்ணிற்கு அரசு வழிகாட்டி மதிப்பு இல்லை. நில உரிமை மாற்ற புலத்திற்கு நிலவரிப்பு நிர்ணயம் செய்திட அதற்கு அருகிலுள்ள புலஎண்.207/2னை தெரிவு செய்து அதற்கான வழிகாட்டி மதிப்பு இணையவழியாக பெறப்பட்டுள்ளது. அதில் இப்புலஎண்ணிற்கான வழிகாட்டி மதிப்பு ஹெக்டேர் ஒன்றிற்கு ரூ.7,87,000/- என உள்ளது. இதன்படி நில உரிமை மாற்ற வந்தவத்திற்கான நிலவரிப்பு (3.27.0 × 7,87,000 = 25,73,490/-) ரூ.25,73,490/- என நிர்ணயம் செய்யப்பட்டுள்ளது என தஞ்சாவூர் வருவாய் கோட்ட அலுவலர் தனது அறிக்கையில் தெரிவித்துள்ளார்.

மேலும் தஞ்சாவூர் வட்டம் வல்லம் வடக்கு சேத்தி கிராமம் புலஎண்.207/1ல் 3.47.0 ஹெக்டேர்ஸ் அரசு புறம்போக்கு குவாரி வகைபாடுடைய புலத்தில் 3.47.0 ஹெக்டேர்ஸில் 3.27.0 ஹெக்டேர்ஸ் ஆசிய வளர்ச்சி வங்கி நிதியுதவியுடன் நகர்ப்புற ஏழைகளுக்கு நிலையான வீடு வழங்குதல் திட்டத்தின் கீழ் தஞ்சாவூர் மாநகராட்சிக்குட்பட்ட பெரியகோவில் அகழி பகுதியை ஆக்கிரமித்து குடியிருந்து வரும் 960 குடியிருப்புதாரர்களுக்கு தஞ்சாவூர் மாநகராட்சி மூலம் எழில்மிகு நகரம் (Smart City) திட்டத்தை செயல்படுத்திட ஏதுவாக அடுக்குமாடி குடியிருப்புகள் கட்டுவதற்கு தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியத்திற்கு நில உரிமை மாற்றம் செய்திடலாம் என தஞ்சாவூர் வருவாய் கோட்ட அலுவலரால் பரிந்துரை செய்து அறிக்கை வரப்பெற்றுள்ளது. மேலும் நில உரிமை மாற்ற புலத்திற்கு மேற்கண்டவாறே நிலமதிப்பு நிர்ணயம் செய்து தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியத்திற்கு நில உரிமை மாற்றம் செய்திடலாம் என மாவட்ட வருவாய் அலுவலர் பரிந்துரை செய்துள்ளார்.

எனவே, அரசாணை (நிலை)எண்.976 வருவாய்த்துறை நாள்.20.10.1997-ன்படி வழக்கமான நிபந்தனைகளுடன் தஞ்சாவூர் வட்டம் வல்லம் வடக்கு சேத்தி கிராமம் புலஎண்.207/1 ல் 3.47.0 ஹெக்டேர்ஸ் அரசு புறம்போக்கு குவாரி வகைபாடுடைய புலத்தில் 3.47.0 ஹெக்டேர்ஸில் 3.27.0 ஹெக்டேர்ஸ் ஆசிய வளர்ச்சி வங்கி நிதியுதவியுடன் நகர்ப்புற ஏழைகளுக்கு நிலையான வீடு வழங்குதல் திட்டத்தின் கீழ் தஞ்சாவூர் மாநகராட்சிக்குட்பட்ட பெரியகோவில் அகழி பகுதியில் ஆக்கிரமித்து குடியிருந்து வரும் 960 குடியிருப்புதாரர்களுக்கு தஞ்சாவூர் மாநகராட்சி மூலம் எழில்மிகு நகரம் (Smart City) திட்டத்தை செயல்படுத்திட ஏதுவாக அடுக்குமாடி குடியிருப்புகள் கட்டுவதற்கு தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியத்திற்கு முன்னுழைவு அனுமதி வழங்கி ஆணையிடப்படுகிறது.

நிபந்தனைகள்

01	மேற்கண்ட புல எண்ணில் எந்த நோக்கத்திற்காக முன்னுழைவு செய்திட அனுமதி வழங்கப்படுகிறதோ அதற்காக மட்டுமே பிரஸ்தாப ஸ்தலத்தினை கேட்புத் துறையினர் பயன்படுத்திட வேண்டும். வேறு பிற காரியங்களுக்காக பயன்படுத்தக் கூடாது.
02	அரசு பின்னர் விதிக்கும் தனி நிபந்தனைகளையும் ஏற்றுக்கொள்ள வேண்டும்.
03	எதிர் காலத்தில் பிரஸ்தாப புலமோ அல்லது அதன் ஒரு பகுதியோ கேட்புத்துறைக்கு தேவையில்லையென்றால் அதனை கேட்புத் துறையினர் வருவாய்த்துறையிடம் திரும்ப ஒப்படைக்க வேண்டும்.
04	அரசு அனுமதியின்றி அடமானம் செய்யவோ, வேறு துறைக்கு மாற்றம் செய்திடவோ கூடாது.

தஞ்சாவூர் மாவட்டம், வல்லம் வடக்கு சேத்தி கிராமம் புலஎண்.207/1-ன் மொத்தப்பரப்பு 3.47.0 ஹெக்டேர்ஸில் 3.27.0 ஹெக்டேர்ஸ் அரசு புறம்போக்கு குவாரி என்ற வகைபாடுடைய

ஸ்தலத்தினை கேட்புத்துறையினர் வசம் ஒப்படைத்து நில ஒப்படைச் சான்றினை தஞ்சாவூர் வட்டாட்சியர் முன்று பிரதிகளை அனுப்பிடவும் அறிவுறுத்தப்படுகிறது.

ஒம்/. ம.கோவிந்த ராவ்
மாவட்ட ஆட்சியர்,
தஞ்சாவூர்.

/ஆணைப்படி/

மாவட்ட ஆட்சியருக்காக 12/11/2020

பெறுநர்

12.11.20

1. நிர்வாகப் பொறியாளர்,
தமிழ்நாடு குடிசைப்பகுதி மாற்றுவாரியம், திருச்சிராப்பள்ளி கோட்டம்.
மதுரைரோடு, பாலக்கரை, திருச்சிராப்பள்ளி - 8.

2. வருவாய் கோட்ட அலுவலர், தஞ்சாவூர்.

3. வட்டாட்சியர், தஞ்சாவூர்.

4. உபரி H2 பிரிவிற்கு மற்றும் இருப்புக் கோப்பிற்கு.

நகல்.

1. மேலாண்மை இயக்குநர்,
தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம், நெ.5,
காமராஜர் சாலை, சென்னை - 5.

2. நிர்வாகப்பொறியாளர்,
தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம்,
திட்ட செயலாக்கம் அலகு - III
விழுப்புரம் கோட்டம், விழுப்புரம்.- 605 602.

3. ஆணையர், மாநகராட்சி, தஞ்சாவூர்

Proceedings of the Collector of Thanjavur District

Present: Thiru M.Govindarao. I.A.S.

Na.ka. A2 / 40909/2017 dated 12.11.2020

SUB: Land Alienation – Thanjavur District and Vallam Vadakku Sethhi Village S.No. 207/1 Extent 3.88.5 Ha Government Poromboke –Land Classified as Quarry – Land to be alienated to Tamil Nadu Slum Clearance Board for Construction of tenements- Land alienation Proposals received – Order on Enter Upon Permission to TNSCB- Reg

REF: 1. G.O. Ms No 457 (Revenue Department) LD 5(2) dt 18.11.2013
2. Executive Engineer, TNSCB, Trichy Division, Lr No 6097/2017 survey dt 02.01.2019 and 22.05.2019.
3. This office letter no 40909/2019/A2 dt 05.08.2019
4. G.O. Ms No 595, Revenue and Disaster Management Department, Land settlement unit (502) dt 23.10.2020
5.Thanjavur district Revenue Officer, Na Ka 12/2013 dt 09.11.2020
6. Thanjavur Thashildar Na Ka 2532/2020 dt 05.11.2020
7 G.O. Ms No 975, Revenue Department , dt 10.10.1997
8. G.O Ms No 67, Revenue Department, (L.A. 5 (2)) dt 04.02.2000
9.G.O Ms No 136, Revenue Department, dt 25.04.2017
10. G.O Ms No 172, Revenue Department, dt 09.05.2017
11. G.O Ms No 136, Revenue Department, dt 25.04.2017
12. G.O Ms No 241, Revenue and Disaster Management Department, (L.A. 5 (1)) dt 16.05.2020
13. Other Connected Records.

Order:-

The land in Thanjavur District, Thanjavur Taluk, Vallam Vadakku Sethhi Village, classified as Government Poromboke Quarry in Survey No. 207/1 having extent 3.88.50 hectares has been considered to be given enter upon permission to Tamilnadu Slum Clearance Board for the construction of 969 tenements for the urban poor and the encroachers at Big Temple Moat in Thanjavur limits under finance from Asian Development Bank so as to facilitate, to develop that Moat area under Smart City program by Thanjavur Corporation, based on the letter vide reference (2) cited above, by Executive Engineer, TamilNadu Slum Clearance Board and their letter accepting conditions laid by Government. Based on the letters with details vide reference 3 cited above for land alienation, vide reference cited 5 above the District Revenue officer, Thanjavur has sent the details for land alienation as follows:

1. Department requiring land:
Under the project to offer permanent houses to the urban poor with financial assistant from Asian Development Bank, TNSCB proposed the land in Thanjavur District, Thanjavur Taluk, Vallam Vadakku Sethhi Village, classified as Government Poromboke quarry in Survey No. 207/1 having extent 3.88.50 hectares for construction of tenements . it is considered to give enter upon permission to Tamilnadu Slum Clearance Board for the construction of 969

tenements for the encroachers of the Big Temple Moat in Thanjavur limits so as to facilitate, to develop that Moat area under Smart City program by Thanjavur Corporation. The required format and other details for land transfer order details acceptance letters for obeying Government conditions are given by the Superintending Engineer.

2. Land Classification Field Status:
The land to be alienated in S.No. 207/1 has been classified as Government Poromboke Quarry in A- Adangal register, as detailed below:

S.No.	S.No.	Classification	Soil status	Quality	Extent (Ha)	Theervai	Remarks
1	207/1	Government Poromboke			3.88.5		Quarry

In S.No. 207/1 having extent 3.88.5 hectares already been subdivided and Subdivision No. 207/5 extent 0.41.5 hectares area has been already handed over to National Highways authority. Now Land in S.No. 207/1 having an extent 3.47.0 hectares has been selected for the Construction of tenements by Tamilnadu Slum Clearance board. In this Survey number, 9 persons have encroached and put up houses that exists for the past 30 years, with an extent of 0.20.0 hectares. The Thanjavur Revenue Divisional Officer in his report states that the balance 3.27.0 hectares of land has been selected for the land alienation to Tamilnadu Slum Clearance Board for the Construction of tenements.

3. A-1 Public Notice:

In view of the land alienation, an A-1 Public Notice had been given by the Revenue Inspector of Vallam region in the concerned Village through the Village Administrative Officer, on 10.10.2020. The Thanjavur Revenue Divisional Officer stated in his report that there was no objections received from the general public.

4. Village Administrative Officer and Public Confession:

In connection with the land alienation, the Village Administrative Officer's and Public Confession letters were enclosed. The Thanjavur Revenue Divisional Officer stated in his report that there were no objections received.

5. No Objection Certificates:

No entries has been made in the "No Objection Register" being maintained by the VAO regarding the above said land. This is reported by, Thanjavur Revenue Divisional Officer in his report.

6. Resolution by Local body:

Since the above said land is classified as Quarry, there is no need for resolution by Local body.

7. Exemption from Local body:

The Thanjavur Revenue Divisional Officer states in his report that since the above referred poromboke land does not come under land handed over to local body for maintenance, as per Tamilnadu Panchayat Rules 1994 Sub section 134(2), there is no necessity for giving

exemption from local body's control.

8. Enter upon permission:

Vide reference 1 cited above, the land to be alienated had been already given enter upon permission to the Tamilnadu Police Housing Corporation for the Construction of Multistoried flats under "Own Your House" scheme. Subsequently the order for enter upon permission given to Tamilnadu Police Housing Corporation had been cancelled vide reference cited 4 above.

9. Sub Division documents:

The extent of the land to be alienated has been subdivided as below and checked by Thanjavur Deputy Thasildhar, vide in Register no. 33/20 D(1).. There is no difference in extent of land before and after the sub division.

Before sub division				After sub division			
S.No.	Classification	Extent (Area in Hectares)	Remarks	S.No.	Classification	Extent (Area in Hectares)	Remarks
207/1	Government Poromboke	3.47.0	Quarry	207/1	Govt. Poromboke	3.27.0	Tamilnadu Slum Clearance Board
				207/6	Govt. Poromboke	0.20.0	Quarry
	Total	**3.47.0**			**Total**	**3.47.0**	

Four side boundary details of the land to be alienated in S No 207/1:

Direction	Details of survey numbers
North	S.No. 206 (Thanjavur- Vallam Medical College road) S.No. 208
South	S.No. 207/5 National Highways
East	S.No. 207/6, 210,208
West	S.No. 206 Thanjavur – Vallam Road

10. Ancient Monuments :

The Thanjavur RDO states in its report that in the land to be alienated, there is no Ancient monuments Temples, Mosques, Churches and Religious Worship places, Wells and Burial Grounds and also there is no land belonging to Hindu Religious and Charitable Endowments or Wakf Board. Also Thanjavur Revenue Divisional Officer said in his report that High Tension power lines passes through the said land. The above said land is about 10 feet low than the existing approach road and however the land is fit for construction of buildings.

11. Trees and Buildings

Thanjavur Revenue Divisional Officer states in his report that in the land to be alienated, there is no Trees and Buildings

12. NOC from Mines department:

The above referred land in S.No. 207/1 which was classified as quarry poramboke and had been already addressed to get No Objection Certificate from the Assistant Director of geology and Mines Department while alienation proposal submitted to Tamilnadu Police Housing Corporation. The Mines Department inspected the site in the S.No. 207/1 and found since

houses are existing nearby to the above land , there is No quarry work being carried out and hence the Assistant Director of Geology and Mines Department issued No objection certificate permission for the Construction of flats by Tamilnadu Police Housing Corporation under "Own Your House" Scheme. Hence there is no question arises again for getting NOC from Mines department.

13. <u>Land cost</u>:

The land to be alienated is classified as Govt. Poromboke Quarry. Hence there is no guideline value for this land. For fixing the land cost, the guideline value for the nearby land in S.No. 207/2 had been selected and arrived at using website. The guideline value for this survey number is ₹7,87,000 /- Per Hectares. Accordingly, the Land cost of the land to be alienated is fixed (3.27.0 x 7,87,000 = 25,73,490) as ₹25,73,490 /-.vide report submitted by the Revenue Divisional Officer

Also The land in Thanjavur District, Thanjavur Taluk, Vallam Vadakku Sethhi Village, classified as Government Poromboke Quarry in Survey No. 207/1 having extent 3.27.0 out of 3.47.0 hectares has been considered to be given enter upon permission to Tamilnadu Slum Clearance Board for the construction of 969 tenements for the encroachers in Big Temple Moat in Thanjavur limits so as to facilitate, to develop that Moat area under Smart City scheme by Thanjavur Corporation, by the Revenue Divisional Officer/Thanjaur. The District Revenue Officer also recommended that the land value may be fixed as above, for land alienation.

Hence, as per G.O.Ms. No. 976 Revenue department dated 20.10.1997, with usual conditions, the land in Thanjavur District, Thanjavur Taluk, Vallam Vadakku Sethhi Village, in S.No. 207/1, classified as Government Poromboke Quarry out of having total extent of 3.47.0 hectares , an extent of 3.27.0 hectares has been ordered to give enter upon permission to Tamilnadu Slum Clearance Board for the construction of 969 tenements under finance from Asian Development Bank for the encroachers in Big Temple Moat in Thanjavur limits so as to facilitate, to develop that Moat area under Smart City by Thanjavur Corporation,

<u>CONDITIONS</u>:

1. The land should be used for the purpose for which it is given to the department concerned and it should not be used for any other purposes.

2. Other conditions if any, later, given by Government should be obeyed.

3.In future if any portion of the land is not required by the land receiving department, the same should be handed over back to Revenue Department.

4. Without getting permission from Government, the land should not be mortgaged or handed over to other departments.

The land in Thanjavur District, Thanjavur Taluk, Vallam Vadakku Sethhi Village, in S.No. 207/1, classified as Government Puromboke Quarry out of having total extent of 3.47.0 Hectares , an extent of 3.27.0 Hectares has to be handed over to the required department and the Thanjavur Tahsildar has been instructed to send 3 copies of the land handed over certificates.

Sd----------

District collector

Thanjavur

/ By order/

For District Collector

To
1. Executive Engineer,
Tamilnadu Slum Clearance Board, Tiruchirapalli Divison,
Madurai road, Palakkarai, Tirucirapapalli – 8.
2 Revenue Divionsl Officer, Thanjavur.
3. Thahsidhar. Thanjavur.
4 Spare H2 section and for file.
Copy
1. The Managing Director
Tamilnadu Slum Clearance Board,
No 5 Kamarajar Salai, Chennai-5.
2. Executive Engineer,
Tamilnadu Slum Clearance Board,
Project Implementation Unit –III,
Villupuram Division, Villupuram – 605602
3. Commissioner, Corporation, Thanjavur.

Rapid Environmental Assessment (REA) Checklist

Instructions:

(i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES) for endorsement by the Director, RSES and for approval by the Chief Compliance Officer.

(ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.

(iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title:	IND: Proposed Inclusive, Resilient and Sustainable Housing for the Urban Poor Sector Project in Tamil Nadu – Vallam, Thanjavur
Sector Division:	Urban Development and Water Division

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area…?			
▪ Densely populated?	✓		Though the Vallam (resettlement site) is located 9.5km from the Thanjavur city centre and it is sparsely populated. The encroachment sites (proposed to be evicted) located within the Big temple Moat is densely populated.
▪ Heavy with development activities?	✓		The Vallam Resettlement site is classified as quarry area with no developmental activities. Whereas in the encroachment site (proposed to be evicted) are located in the Big Temple Moat (within Thanjavur Municipal Corporation Limits) with development activities.
▪ Adjacent to or within any environmentally sensitive areas?		✓	No, both the resettlement site and the encroachment sites do not have environmentally sensitive areas within the surroundings/ vicinity. The nearest sensitive areas (Vaduvoor Bird Sanctuary and Karaivetti Bird Sanctuary) are located at a distance of 25km from Thanjavur
• Cultural heritage site	✓		The Vallam subproject encroachment sites (where people will be relocated from) is close by to cultural heritage sites (Brihadeeswarar temple and the Thanjavur palace). Two encroachment sites (Vadakku alangam and Sekkaditheru) fall within 250m of the Thanjavur palace. Under the Ancient Monuments and Archaeological Sites and Remains Act 2010, it limits new construction within 300m of the boundary of the protected monument or sites however it is silent on demolition and regeneration activities. Prior to the tendering of the demolition and regeneration works contract, TNSCB will further

Screening Questions	Yes	No	Remarks
			consult with ASI and any feedback / recommendations shall be minuted and re-incorporated into the IEE and EMP. The demolition and regeneration contractor will have to adopt the relevant EMPs. In addition to this within the Sekkaditheru encroachment site an old wall was observed during the site visit, as such prior to the tendering of any works, TNSCB will consult with the Archaeological Survey of India (ASI) to seek further clarifications and suggestions, and will be required to prepare a heritage impact assessment and management plan in close consultation and support of ASI which has to be reincorporated into the IEE and EMPs. The relevant demolition and regeneration works contractor will adopt the suggested mitigation measures and relevant EMP. Also to mitigate any potential impacts at the encroachment sites, manual construction methods will be employed, a chance find procedure adopted and appropriate noise mitigation measures will be implemented.
• Protected Area • Wetland • Mangrove • Estuarine • Buffer zone of protected area • Special area for protecting biodiversity • Bay		✓	Not envisaged
B. Potential Environmental Impacts Will the Project cause…			
▪ impacts on the sustainability of associated sanitation and solid waste disposal systems and their interactions with other urban services.	✓		Yes, the proposed resettlement project shall have an impact on the existing sanitation and solid waste disposal systems due to the addition of huge population who have relocated from other localities to the Vallam (Resettlement Site). However, sustainability of the associated sanitation and solid waste disposal system will be managed by the Vallam Special Grade Town Panchayat
▪ deterioration of surrounding environmental conditions due to rapid urban population growth, commercial and industrial activity, and increased waste generation to the point that both manmade and natural systems are overloaded and the capacities to manage these systems are overwhelmed?		✓	No, the proposed resettlement project will have a moderate impact on the surrounding environment due to the commercial activities (small shops, stores, restaurants, households etc) and an increase in waste generation. However, this increase shall be managed as the waste will be segregated at the source and the generated MSW will be collected and disposed by Vallam Special grade Town panchayat. In addition to this the generated sewage will be

Screening Questions	Yes	No	Remarks
			treated and disposed as per the discharge standard and hence the deterioration to the surroundings shall be mitigated to acceptable levels.
▪ degradation of land and ecosystems (e.g. loss of wetlands and wild lands, coastal zones, watersheds and forests)?		✓	There are no wetlands, wild lands, coastal zones, watersheds and forests at or nearby the resettlement site or the encroachment sites to be relocated.
▪ dislocation or involuntary resettlement of people?	✓		Yes, the proposed subproject will involve the dislocation of the flood affected and socially vulnerable people who are living near the water bodies. A Resettlement Framework and related Resettlement Plan have been prepared.
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable group?	✓		Yes, the proposed subproject does target those who are socially vulnerable living close to water bodies. However, this impact is expected to be positive as the subproject will help improve access to improved livelihoods and also reduce their risk to flood hazards.
▪ degradation of cultural property, and loss of cultural heritage and tourism revenues?		✓	Not envisaged
▪ occupation of low-lying lands, floodplains and steep hillsides by squatters and low-income groups, and their exposure to increased health hazards and risks due to pollutive industries?		✓	Not envisaged. Though the Vallam resettlement site is an abandoned quarry area, it is free from industrial activities and hence exposure to increased health hazards is not envisaged. There are no low-lying lands, floodplains, or polluting industries near the resettlement site. The water bodies will be regenerated after the relocation of encroachment and it will be protected by fencing to prevent further encroachment.
▪ water resource problems (e.g. depletion/ degradation of available water supply, deterioration for surface and ground water quality , and pollution of receiving waters?	✓		Yes, the proposed resettlement project in Vallam shall have an impact on the water resources, especially in the project construction and operation stages. During the project construction, significant quantity of surface water shall be used, which will be sourced from either TWAD or Vallam Special Grade Town Panchayat and during operation, TWAD shall supply water for drinking and other domestic purposes. Due to this a considerable quantity of waste water will be generated and it shall be disposed properly (utilised for gardening, rainwater harvesting and for flushing) after treatment and hence no major water resource problems are anticipated.
▪ air pollution due to urban emissions?	✓		Yes, there may be increased urban emissions due to travel as people may still need to access previous livelihoods or services. However, resettled location has been chosen to be close to economic opportunities and infrastructure, including existing transport routes so this should be minimised.
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical and biological hazards during project	✓		Yes, generation of Asbestos materials/ sheets, which are used as roofing/ ceiling purposes from the 4 encroachment sites will have hazardous risks, hence it should be disposed as per the hazardous waste

Screening Questions	Yes	No	Remarks
construction and operation?			management rules 2016 with assistance from Asbestos expert, who will assess the site and will guide in handling the asbestos. For fire accidents, fire extinguisher has been proposed on each floor. Other OHS related impacts are also anticipated, however, they shall be mitigated through provision of appropriate PPEs to the labours and hence the risks and vulnerability shall be reduced to acceptable levels.
▪ road blocking and temporary flooding due to land excavation during rainy season?		✓	No, not envisaged, the proposed project is located far from the city centre (9.5km distance from the Thanjavur city) and it does not have roads with heavy traffic to be blocked during the project construction. The National highways 67 shall not be used for transportation of construction materials, the presence of other arterial roads shall serve the purpose. Hence Traffic issues (road blocking, traffic diversion etc.,) are not envisaged. Construction activities shall be put on hold during the rainy seasons to avoid flooding or any other issues
▪ noise and dust from construction activities?	✓		Yes, noise and air quality impacts are anticipated due to the movement of construction materials through transportation, noise and vibration regenerated from the construction activities including piling works/ vehicle/ machineries etc. Piling works will be prohibited at night and appropriate noise monitoring will be implemented.
▪ traffic disturbances due to construction material transport and wastes?		✓	The Vallam resettlement site is in the outskirts of Tanjavur Municipality corporation limit, with very little traffic and hence the proposed construction activities (transportation of construction materials) won't be having any major impacts. However, on the other hand, the disposal of construction debris from the 4 demolishing sites shall have moderate impact on the local traffic, but it is temporary and will exist till the demolishing activities are completed (within 6 months).
▪ temporary silt runoff due to construction?		✓	No, construction activities (at resettlement site, demolishing sites and water body regeneration sites) shall be put on hold during the rainy seasons, however, appropriate mitigation measures including silt fencing shall be provided for controlling silt runoff from the site
▪ hazards to public health due to ambient, household and occupational pollution, thermal inversion, and smog formation?		✓	Not envisaged
▪ water depletion and/or degradation?	✓		Yes, during the project construction and operation, there is a moderate negative impact anticipated on the water resource. However, providing rain water harvesting structures within the project area will help to recharge the groundwater system. A water source sustainability study is being conducted for the resettlement site, the findings/ observations and

Screening Questions	Yes	No	Remarks
			suggestions from the study shall be implemented to maintain groundwater sustainability in the project area
▪ overpaying of ground water, leading to land subsidence, lowered ground water table, and salinization?		✓	The use of groundwater is totally prohibited for construction and operation stages of the project and hence impact on the groundwater sources are not envisaged
▪ contamination of surface and ground waters due to improper waste disposal?		✓	No, there is no surface water body near to the Vallam resettlement site and hence contamination of the surface water is not envisaged. However, construction waste and Municipal Solid Waste (from labour camp) are likely to be generated during the project construction and Municipal Solid Waste (from residential units) are likely to generate during operation stages and hence, if waste disposal is not implemented properly (from collection to disposal), it may affect the groundwater resources through generation of leachate. Hence disposal of the MSW will occur on a daily basis. If the construction and demolition waste are not managed/ disposed properly in the 4 encroachment areas, which may lead to the contamination of the surface water body. By adopting the measures suggested in the EMP the anticipated impacts shall be mitigated
▪ pollution of receiving waters resulting in amenity losses, fisheries and marine resource depletion, and health problems?		✓	No, as indicated there is no surface water body near the project site. Excess treated water from the STP will be handled by the Vallam Special Grade Town Panchayat.
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?	✓		Yes, During the construction activity, there will be influx of people from local areas and other states. This will include those who would be migrating as labours. However, it will be temporary which will last up to the completion of the project. To avoid increased burden on social infrastructure and services such as water supply and sanitation systems, the Contractor shall provide them labour camps with all required amenities.
▪ social conflicts if workers from other regions or countries are hired?	✓		Yes, social conflicts mays arise with respect to competition for jobs, dispute with wages, attitude issues etc. Hence, the contractor has to adopt a Code of Conduct for the migrant labours to sort out any issues with the locals. However, preference shall be given to the local labour.
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during operation and construction?	✓		Yes, though the stored construction materials are not toxic or hazardous in nature and hence explosion, fires are not anticipated. However, the removal of asbestos from the demolition sites during construction and disposal of STP sludge during operation are considered to be hazardous. With the help/ assistance from the asbestos expert, the

Screening Questions	Yes	No	Remarks
			asbestos waste shall be handled and disposed as per hazardous waste management rules 2016. The sludge from the STP will be treated prior to disposal. The prepared CEMP shall have mitigation measure for managing the same.
▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	✓		There may be a minimal risk during demolition at the encroachment sites, however this area will be fenced and access will be restricted. So no risks are envisaged.

A Checklist for Preliminary Climate Risk Screening

Country/Project Title : IND: Proposed Inclusive, Resilient and Sustainable Housing for the Urban Poor Sector Project in Tamil Nadu – Vallam, Thanjavur
Sector : Urban Development and Water
Subsector :
Division/ Department:

Screening Questions		Score	Remarks[26]
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	1	The Vallam resettlement site have not experienced flooding or worst climate impacts however the encroachment areas have witnessed seasonal flooding.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	1	The subproject site is located in an abandoned Gravel Quarry area and the project design is provided with sufficient drain to prevent storm surge
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	1	The apartment blocks have been designed considering the hot climate of the area to reduce temperature. Weather proof construction materials are proposed to withstand extreme heat and humid weather conditions.
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s) ?	1	Likely the maintenance of housing will depend on how degraded it becomes due to weather and extreme events. The site has been chosen to ensure it is not in a hazard zone.
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	0	Weather/climate conditions and related extreme events are not likely to affect the residential units since they have been designed to withstand them.

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

[26] If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high-risk project.

Result of Initial Screening (Low, Medium, High): Medium

Other Comments: The proposed Resettlement Project site in Vallam, Thanjavur shall not have any significant environmental / climate change impacts. The proposed rainwater harvesting, harshening solar energy and landscaping shall have a positive impact on the environment and the climate change. It is also proposed to use environmentally friendly construction materials as to safeguard the surrounding environment.

Prepared by: Tamil Nadu Slum Clearance Board, Chennai

Environmental Clearance from SEIAA [to be obtained]

Salient Features of Major Labor Laws Applicable to Establishments Engaged in Construction of Civil Works

(i) Workmen Compensation Act, 1923 - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

(ii) Payment of Gratuity Act, 1972 - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

(iii) Employees' PF and Miscellaneous Provisions Act, 1952 - The Act provides for monthly contributions by the employer plus workers @10 % or 8.33 %. The benefits payable under the Act are: (a) Pension or family pension on retirement or death as the case may be; (b) deposit linked insurance on the death in harness of the worker; (c) payment of PF accumulation on retirement/death etc.

(iv) Maternity Benefit (Amendment) Act 2017- The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

(v) Contract Labour (Regulation and Abolition) Act, 1970 - The Act provides for certain welfare measures to be provided by the Contractor to contract labor and in case the Contractor fails to provide, the same are required to be provided by the Principal Employer by Law. The principal employer is required to take Certificate of Registration and the Contractor is required to take a License from the designated Officer. The Act is applicable to the establishments or Contractor of principal employer if they employ 20 or more contract labor.

(vi) Minimum Wages Act, 1948 - The employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employment.

(vii) Payment of Wages Act, 1936 - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

(viii) Equal Remuneration Act, 1979 - The Act provides for payment of equal wages for work of equal nature to Male and Female workers and not for making discrimination against Female employees in the matters of transfers, training and promotions etc.

(ix) Payment of Bonus Act, 1965 - The Act is applicable to all establishments employing 20 or more workmen. The Act provides for payments of annual bonus subject to a minimum of 8.33 % of wages and maximum of 20 % of wages to employees drawing ₹3,500/- per month or less. The bonus to be paid to employees getting ₹2,500/- per month or above up to ₹3,500/- per month shall be worked out by taking wages as ₹2,500/- per month only. The Act does not apply to certain establishments. The newly set up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of the Act.

(x) Industrial Disputes Act, 1947 - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

(xi) Industrial Employment (Standing Orders) Act, 1946 - It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of

employment by the employer on matters provided in the Act and get the same certified by the designated Authority.

(xii) Trade Unions Act, 1926 - The Act lays down the procedure for registration of trade unions of workmen and employees. The trade unions registered under the Act have been given certain immunities from civil and criminal liabilities.

(xiii) Child Labor (Prohibition and Regulation) Act, 1986 - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of child labor is prohibited in Building and Construction Industry.

(xiv) Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act, 1979 - The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The inter-state migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.

(xv) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the Cess Act of 1996 - All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under this Act. All such establishments are required to pay Cess at rate not exceeding 2% of the cost of construction as may be notified by the Government. The employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodation for workers near the workplace etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

Confirmation on the Encroachments Located in the Water Bodies

ந.க. 2532/2019/ஆ3

வட்டாட்சியர் அலுவலகம்
தஞ்சாவூர்

சான்று

தஞ்சாவூர் மாவட்டம், தஞ்சாவூர் வட்டம், வல்லம் வடக்கு சேத்தி கிராமத்தில் தமிழ்நாடு குடிசைப்பகுதி மாற்றுவாரியம் மூலம் அடுக்குமாடி குடியிருப்புகள் கட்டப்பட உள்ளன,தஞ்சாவூர் மாநகராட்சி எல்லைக்குட்பட்ட அகழி கரை ஓரங்களில் ஆக்ரமணத்தில் உள்ள மழை காலங்களில் வெள்ளத்தால் பாதிப்படையக்கூடிய கீழ்க்கண்ட பகுதி மக்களை இக்குடியிருப்புகளில் மறுகுடியமர்வு செய்யலாம் என சான்றளிக்கிறேன்.

வ.எண்	ஆக்கிரமிப்பு பகுதிகளின் பெயர்
1.	கொடிமரத்துமூலை
2.	வடக்கு அலங்கம்
3.	மேல அலங்கம்
4.	செக்கடி தெரு

19.9.2020

வட்டாட்சியர்
தஞ்சாவூர்

Na Ka no 2532/2019/A3 Taluk Office

Thanjavur

Certificate

In Vallam Vadakku sethu village of Thanjavur Taluk, Thanjaoor district, tenements are proposed to be constructed by Tamil Nadu Slum Clearance Board. It is certified that the people in the following areas which are affected by floods during rainy seasons and located in in the banks of Moat in Thanjavur Corporation shall be rehabilitated into above tenements

S No	Name of the Encroachment Area
1.	Kodimarthumullai
2.	Vadakku Allangam
3.	Mela Allangam
4.	Sekkadi street

Sd/-

Tashildar

Thanjavur

Confirmation letter from the Tamilnadu Generation and Distribution Corporation Limited (TANGEDCO)

TAMILNADU GENERATION AND DISTRIBUTION CORPORATION LIMITED

FROM :

ER.A.SEKAR.,B.E.
Executive Engineer,
O&M /TANGEDCO
NO : 1 Vallam Road
Thanjavur-7.

TO:

The Executive Engineer
TamilNadu Slum Clearance board,
PMU Division II
Salem – 636 007.

Lr.No. EE/O&M/TJR/TA.1/F. Doc/D.No. 2814 /2020/Dt: 28 .10.2020.

Sir,

Sub: Elecy – Thanjavur Electricity Distribution Circle – Thanjavur Division - TamilNadu Slum Clearance Board - PMU Division – construction of 969 tenerments in S.F.No.207/1, Vallam Vadakku Setthi Village – Thanjavur Taluk –Thanjavur District - Consent for providing Electric Power Supply – Regarding.

Ref: You Letter No: 24/AE(P) / 2020, dt:13.08.2020.

****

As per TNERC guidelines the Electricity service connection will be provided to the above units based on your application; after collecting all the fees the action may be taken. For your kind information please.

EXECUTIVE ENGINEER,
OPERATION & MAINTENANCE,
THANJAVUR

Certificate Indicating the Vallam Resettlement Site is not Vulnerable for Flooding

RC 2532 /2019/B3

Taluk office

Thanjavur Taluk
Thanjavur
Date 21.08.2020

CERTIFICATE

It is certified that the land lies in s.No:207/1 of vallam vadakku sethi village,Thanjavur taluk is not prone to flood and the site is not encroached on water body

It is also certified that the above land lies in drought free zone since the site area is not short of rainfall/ground water supply

20.8.2020

TAHSILDHAR
THANJAVUR

25.08.2020

Acceptance letter for collection of Municipal Solid Waste

அனுப்புதல்	பெறுதல்
சீ.இராமபிரசாத் செயல் அலுவலர் தேர்வுநிலை பேரூராட்சி வல்லம்	நிர்வாகப்பொறியாளர் தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம், திருச்சிராப்பள்ளி கோட்டம், மதுரை ரோடு, பாலக்கரை, திருச்சிராப்பள்ளி – 8

நக.எண் 551/2019/அ1 நாள் 11.05.2020

ஐயா,

பொருள் – தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம் – தஞ்சாவூர் மாவட்டம் – வல்லம் தேர்வுநிலை பேரூராட்சி – வல்லம் வடக்கு சேத்தி கிராமம் புல எண் 207/1–ல் கட்டப்படவுள்ள 969 (G+5) அடுக்குமாடி குடியிருப்புகளுக்கு வல்லம் பேரூராட்சி மூலம் துப்புரவு பணிகளை மேற்கொள்ள ஒப்புதல் தருதல் – தொடர்பாக.

பார்வை – 1) நிர்வாக பொறியாளர், தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம் திருச்சிராப்பள்ளி அவர்களின் கடித நக.எண் 2510/உ.பொ(தி)/2019, நாள் 17.12.2019.
2) இதர தொடர்புடைய ஆவணங்கள்.

பார்வை 1–இல் காணும் கடிதத்தில், தஞ்சாவூர் மாவட்டம், வல்லம் பேரூராட்சி எல்லைக்குட்பட்ட வல்லம் வடக்கு சேத்தி கிராமம் புல எண் 207/1–ல் அய்யனார் கோவில் பகுதி 2–இல் திட்டப்பகுதியில் ஏழை எளிய மக்களுக்காக தமிழ்நாடு குடிசை மாற்று வாரியத்தின் மூலம் கட்டப்படவுள்ள 969 (G+5) அடுக்குமாடி குடியிருப்புகளை மக்களுக்கு ஒதுக்கீடு செய்த பின்னர் அத்திட்ட பகுதியில் திடக்கழிவு மேலாண்மை பணிகளை இப்பேரூராட்சியின் மூலம் மேற்கொள்ள சம்மதம் தெரிவித்துக்கொள்ளப்படுகிறது. அதுசமயம் இதற்காக வாரியம் செலுத்த வேண்டிய தொகையை பேரூராட்சி மூலம் கோரப்படும் பயனர் கட்டணத்தினை (User Charges) வாரியம் மூலம் செலுத்திட வேண்டும் எனவும் தெரிவிக்கப்படுகிறது.

செயல் அலுவலர்
வல்லம் தேர்வுநிலை பேரூராட்சி
தஞ்சாவூர் மாவட்டம்

நகல் – தஞ்சாவூர் மண்டல பேரூராட்சிகள் உதவி இயக்குநர் அவர்களுக்கு, தகவலுக்காக பணிந்து அனுப்பப்படுகிறது.

From
Thiru C RamaPrasad
Executive Officer,
Special Grade Town Panchayat
Vallam,

To
Executive Engineer,
Tamil Nadu Slum Clearance Board,
PMU-ADB Division,
Salem Division,
Salem

Na.Ka.No.551/2019/A1 dated 11.05.2020

Sir,

SUB: Tamilnadu Slum Clearance Board – Thanjavur District- Special Grade Town Panchyat – Vallam Vadaku Sethi Village Survey No 207/1—Handling of Solid waste management by Vallam Town Panchayat for the Construction of 969 tenements (G+5) –Giving consent - Regarding

REF: 1. EE TNSCB Trichy Lr No 26/AE/2020, dt 05.10.2020
2. Other Connected Records

With the reference letter 1st cited, the consent is given to undertake solid waste management work after the allotment of 969 (G + 5) tenements to be constructed for the poor people in the project area of Thanjavur District, Vallam Town Panchayat, Vallam Vadakusethi Village survey no. 207/1, Ayyarnar kovil phase – II.

And also requested to pay the deposit amount and user charges by TNSCB as claimed by the Town Panchayat.

Sd----------
Executive Officer
Vallam Special Grade Town Panchayat
Thanjavur District.

Copy to : Assistant Director, Town Panchayats, Thanjavur Region, for Kind Information.

Acceptance letter for Collection of Dry Sludge and Treated Sewage Water

அனுப்புதல்	பெறுதல்
சீ.இராமபிரசாத் செயல் அலுவலர் தேர்வுநிலை பேரூராட்சி வல்லம்	நிர்வாகப்பொறியாளர் தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம், (PMU-ADB Division) சேலம் கோட்டம் சேலம்.

நக.எண் 551/2019/அ1 நாள் 13.10.2020

ஐயா,

பொருள் – தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம் – தஞ்சாவூர் மாவட்டம் – வல்லம் தேர்வுநிலை பேரூராட்சி – வல்லம் வடக்கு சேத்தி கிராமம் புல எண் 207/1 –ல் கட்டப்படவுள்ள 969 (G+5) அடுக்குமாடி குடியிருப்புகளுக்கு வல்லம் பேரூராட்சி மூலம் திரவக்கழிவு மேலாண்மை பணி மேற்கொள்ளுதல் இசைவு தெரிவித்தல் – தொடர்பாக.

பார்வை – 1) நிர்வாக பொறியாளர், தமிழ்நாடு குடிசைப்பகுதி மாற்று வாரியம் திருச்சிராப்பள்ளி அவர்களின் கடித நக.எண் 26/A.E/2020, நாள் 05.10.2020.
2) இதர தொடர்புடைய ஆவணங்கள்.

தஞ்சாவூர் மாவட்டம், வல்லம் பேரூராட்சி பார்வை 1–இல் காணும் கடிதத்தில், வல்லம் வடக்கு சேத்தி கிராமம் புல எண் 207/1–ல் அய்யனார் கோவில் பகுதி 2–இல் திட்டப்பகுதியில் ஏழை எளிய மக்களுக்காக தமிழ்நாடு குடிசை மாற்று வாரியத்தின் மூலம் கட்டப்படவுள்ள 969 (G+5) அடுக்குமாடி குடியிருப்புகளை மக்களுக்கு ஒதுக்கீடு செய்த பின்னர் அத்திட்ட பகுதியில் திரவக்கழிவு மேலாண்மை பணிகளை இப்பேரூராட்சியின் மூலம் மேற்கொள்ள இசைவினை தெரிவிப்பதுடன், இதற்காக பேரூராட்சி மூலம் கோரப்படும் வைப்புத்தொகை மற்றும் பயனர் கட்டணத்தினை (User Charges) வாரியம் மூலம் செலுத்திட கேட்டுக்கொள்ளப்படுகிறது.

செயல் அலுவலர்,
வல்லம் தேர்வுநிலை பேரூராட்சி,
தஞ்சாவூர் மாவட்டம்.

நகல் – தஞ்சாவூர் மண்டல பேரூராட்சிகள் உதவி இயக்குநர் அவர்களுக்கு, தகவலுக்காக பணிந்து அனுப்பப்படுகிறது.

From	To
C.Ramaprasad, Executive Officer, Selection Grade Town Panchayat, Vallam.	Executive Engineer, Tamil Nadu Slum Clearance Board, (PMU-ADB Division), Salem Division, Salem.

Lr.No:551/2019/A1, Dt:09.12.2020

Sir,

Sub: Tamil Nadu Slum Clearance Board- Thanjavur District- Vallam Selection Grade Town Panchayat – Vallam Vadakku Sethi village- S.No.207/1 – Construction of 969 (G+5) tenements – Sewage Management to be handled by Vallam town Panchayat – Acceptance – Regarding.

Ref: i) Executive Engineer, Tamil Nadu Slum Clearance Board, Tiruchirapalli, Lr.No 26/A.E/2020 dt: 05.10.2020
ii) Other related documents.

With reference to the letter (i) cited above, Tamil Nadu Slum Clearance Board proposed to construct 969 (G+5) tenements for the poor people in S.No 207/1 of Ayyanar Koil Phase-II in Vallam Vadakku Sethi village of Vallam town panchayat in Thanjavur District.

After completion of allotment, the work of handing the liquid waste management (Disposal of treated water and Disposal of dry sludge) will be taken care of by this town panchayat. In this regard, the deposit amount and user charges as claimed by the town panchayat needs to be paid by the Board.

-Sd-
Executive Officer,
Vallam Selection Grade Town Panchayat,
Thanjavur District.

Copy to – Assistant Director, Thanjavur Regional Town Panchayats for information.

Tamil Nadu Water Supply and Drainage Board (TWAD) acceptance/ acknowledge for the supply of water to Vallam resettlement site

11/20/2020 Screenshot_20201120_163541.jpg

Tamil Nadu Water Supply and Drainage Board (TWAD)

Hi S Dhanasekaran

Sign Out

Change Password

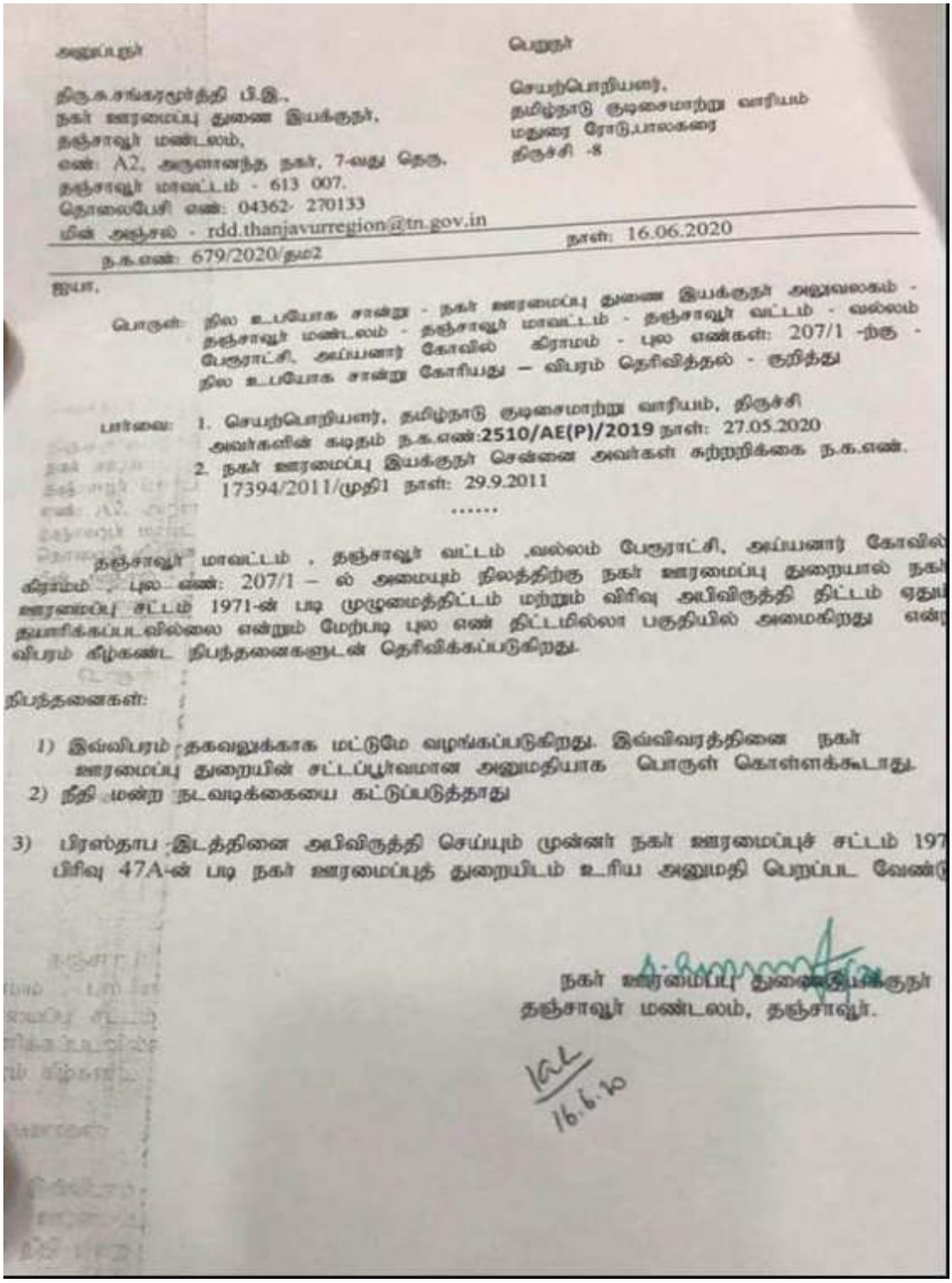
My Applications | New Water Connection Registration

Payments for Executive Engineer, Tamil Nadu Slum Clearance Board, PIU-2 Salem Division. - TWAD20200340

Payment Name	Payment Type	Total Amount	Transaction Ref No.	Bank Ref No.	Paid Date	Due Date	Status	Basic Payment
Application Fee	Full	11800			20-11-2020 02:39:15 IST		PAID	Yes

Powered by TamilNadu © 2020 e-TWAD Login & Customer Login

Land Use Certificate



அனுப்புநர்

திரு.க.சங்கரமூர்த்தி பி.இ.,
நகர் ஊரமைப்பு துணை இயக்குநர்,
தஞ்சாவூர் மண்டலம்,
எண்: A2, அருளானந்த நகர், 7-வது தெரு,
தஞ்சாவூர் மாவட்டம் - 613 007.
தொலைபேசி எண்: 04362- 270133
மின் அஞ்சல் - rdd.thanjavurregion@tn.gov.in

பெறுநர்

செயற்பொறியாளர்,
தமிழ்நாடு குடிசைமாற்று வாரியம்
மதுரை ரோடு,பாலக்கரை
திருச்சி -8

ந.க.எண்: 679/2020/தம2 நாள்: 16.06.2020

ஐயா,

பொருள்: நில உபயோக சான்று - நகர் ஊரமைப்பு துணை இயக்குநர் அலுவலகம் - தஞ்சாவூர் மண்டலம் - தஞ்சாவூர் மாவட்டம் - தஞ்சாவூர் வட்டம் - வல்லம் பேரூராட்சி, அய்யனார் கோவில் கிராமம் - புல எண்கள்: 207/1 -ற்கு - நில உபயோக சான்று கோரியது – விபரம் தெரிவித்தல் - குறித்து

பார்வை: 1. செயற்பொறியாளர், தமிழ்நாடு குடிசைமாற்று வாரியம், திருச்சி அவர்களின் கடிதம் ந.க.எண்:2510/AE(P)/2019 நாள்: 27.05.2020
2. நகர் ஊரமைப்பு இயக்குநர் சென்னை அவர்கள் சுற்றறிக்கை ந.க.எண். 17394/2011/முதி1 நாள்: 29.9.2011

.....

தஞ்சாவூர் மாவட்டம் , தஞ்சாவூர் வட்டம் ,வல்லம் பேரூராட்சி, அய்யனார் கோவில் கிராமம் , புல எண்: 207/1 – ல் அமையும் நிலத்திற்கு நகர் ஊரமைப்பு துறையால் நகர் ஊரமைப்பு சட்டம் 1971-ன் படி முழுமைத்திட்டம் மற்றும் விரிவு அபிவிருத்தி திட்டம் ஏதும் தயாரிக்கப்படவில்லை என்றும் மேற்படி புல எண் திட்டமில்லா பகுதியில் அமைகிறது என்ற விபரம் கீழ்கண்ட நிபந்தனைகளுடன் தெரிவிக்கப்படுகிறது.

நிபந்தனைகள்:

1) இவ்விபரம் தகவலுக்காக மட்டுமே வழங்கப்படுகிறது. இவ்விவரத்தினை நகர் ஊரமைப்பு துறையின் சட்டப்பூர்வமான அனுமதியாக பொருள் கொள்ளக்கூடாது.
2) நீதி மன்ற நடவடிக்கையை கட்டுப்படுத்தாது
3) பிரஸ்தாப இடத்தினை அபிவிருத்தி செய்யும் முன்னர் நகர் ஊரமைப்புச் சட்டம் 197 பிரிவு 47A-ன் படி நகர் ஊரமைப்புத் துறையிடம் உரிய அனுமதி பெறப்பட வேண்டு

நகர் ஊரமைப்பு துணை இயக்குநர்
தஞ்சாவூர் மண்டலம், தஞ்சாவூர்.

16.6.20

From
Thiru S Sankaramoorthy. B.E.
Town Planning Area, Assistant Director (i/c) ,
Thanjavur Region,
No A2, Arulanadha Nagar,
7th Street, Thanjavur District -613007
Email: rdd.thanjavurregion@tn.gov.in
Telephone No. 04362-270133

To
Executive Engineer,
Tamil Nadu Slum Clearance Board,
Madurai Road,Palakarai
Trichy 8

Na.Ka.no. 679/2020/T R. dated 16.062020

Sir,

SUB: land use details – Town Planning Area - Thanjavur Region – Thanjavur District-Thanjavur Circle / Vallam Panchayat Union Ayyanar Kovil Village- Survey no 207/1-Giving land use – Report Submitted- Reg.

REF: 1. Executive Engineer, Tamilnadu Slum Clearance Board, Trichy Division letter Lr No Na ka 2510/AE(P)/ 2019 dated 27.05.2020
2. Town Planning Director, Chennai letter na.ka.no. 17394/11/muthi1 dated 29.09.2011

The place in Thanjavur District, Thanjavur Circle / Vallam Panchayat Union, Ayyanar Kovil Village survey no. 207/1 had not been classified for land use classification till date by this department according to Town Planning law 1971. This is hereby informed that this place is in Non Planning Area.

Conditions:

1. This is submitted for information only. This should not be treated as this office permission.
2. This detail should not be covered under any lawful and any action
3. Any development in the aforesaid place should be got permission from this department as per Town Planning Law 1971 section 47 A

Sd----------
Assistant Director/ Town Planning
Thanjavur Region,
Thanjavur

Submission of Compliance Matrix for the EC conditions [to be completed]

Source Sustainability Study for Supply of Water to the Vallam Resettlement Site [to be completed]

Integrated Biodiversity Assessment Tool (IBAT)

IBAT

Proximity Report
TN VALLAM

Country: India

Location: [10.7, 79.1]

Date of analysis: 05 December 2020 (GMT)

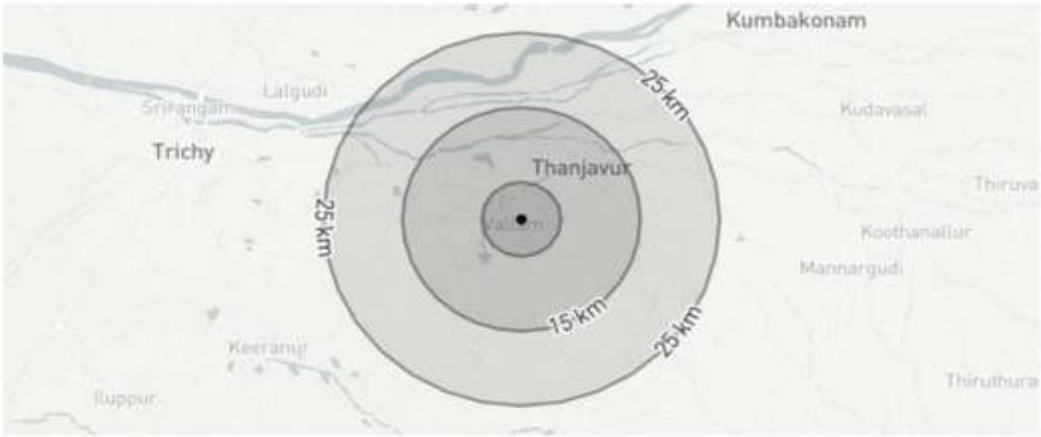
Buffers applied: 5 km | 15 km | 25 km

Generated by: Charlene Liau

Organisation: ADB

Overlaps with:

Protected Areas	1
Key Biodiversity Areas	0
IUCN Red List	139



Displaying project location and buffers: 5 km, 15 km, 25 km

IBAT

About this report

This report presents the results of [2764-12731] proximity analysis to identify the biodiversity features and species which are located within the following buffers: 5 km, 15 km, 25 km.

This report is one part of a package generated by IBAT on 05 December 2020 (GMT) that includes full list of all species, protected areas, Key Biodiversity Areas in CSV format, maps showing the area of interest in relation to these features, and a 'How to read IBAT reports' document.

Data used to generate this report

- UNEP-WCMC and IUCN, 2020. Protected Planet: The World Database on Protected Areas (WDPA)[On-line], Cambridge, UK: UNEP-WCMC and IUCN. Available at: www.protectedplanet.net - December 2020.
- BirdLife International (on behalf of the KBA Partnership), 2020. Key Biodiversity Areas - October 2020.
- IUCN, 2020. IUCN Red List of Threatened Species - July 2020.

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Protected Areas

The following protected areas are found within 5 km, 15 km, 25 km of the area of interest.
For further details please refer to the associated csv file in the report folder.

Area name	Within buffer of
Gulf of Mannar	15 km

Key Biodiversity Areas

The following key biodiversity areas are found within 5 km, 15 km, 25 km of the area of interest.
For further details please refer to the associated csv file in the report folder.

No KBAs within buffer distance

IUCN Red List of Threatened Species

The following threatened species are potentially found within 50km of the area of interest.

For the full IUCN Red List please refer to the associated csv in the report folder.

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Glyphis gangeticus	Ganges Shark	CHONDRICHTHYES	CR	Decreasing	Marine, Freshwater
Carcharhinus hemiodon	Pondicherry Shark	CHONDRICHTHYES	CR	Unknown	Marine
Sphyrna lewini	Scalloped Hammerhead	CHONDRICHTHYES	CR	Decreasing	Marine
Sphyrna mokarran	Great Hammerhead	CHONDRICHTHYES	CR	Decreasing	Marine
Pristis zijsron	Green Sawfish	CHONDRICHTHYES	CR	Decreasing	Marine

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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Rhina ancylostoma	Bowmouth Guitarfish	CHONDRICHTHYES	CR	Decreasing	Marine
Rhynchobatus australiae	Bottlenose Wedgefish	CHONDRICHTHYES	CR	Decreasing	Marine
Rhynchobatus laevis	Smoothnose Wedgefish	CHONDRICHTHYES	CR	Decreasing	Marine
Glaucostegus granulatus	Sharpnose Guitarfish	CHONDRICHTHYES	CR	Decreasing	Marine
Glaucostegus obtusus	Widenose Guitarfish	CHONDRICHTHYES	CR	Decreasing	Marine
Glaucostegus thouin	Clubnose Guitarfish	CHONDRICHTHYES	CR	Unknown	Marine
Pristis pristis	Largetooth Sawfish	CHONDRICHTHYES	CR	Decreasing	Marine, Freshwater
Calidris pygmaea	Spoon-billed Sandpiper	AVES	CR	Decreasing	Terrestrial, Marine, Freshwater
Gyps bengalensis	White-rumped Vulture	AVES	CR	Decreasing	Terrestrial
Sarcogyps calvus	Red-headed Vulture	AVES	CR	Decreasing	Terrestrial
Glaucostegus typus	Giant Guitarfish	CHONDRICHTHYES	CR	Decreasing	Marine
Cuon alpinus	Dhole	MAMMALIA	EN	Decreasing	Terrestrial
Manis crassicaudata	Indian Pangolin	MAMMALIA	EN	Decreasing	Terrestrial

IBAT

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Rhincodon typus	Whale Shark	CHONDRICHTHYES	EN	Decreasing	Marine
Anoxypristis cuspidata	Narrow Sawfish	CHONDRICHTHYES	EN	Decreasing	Marine
Eusphyra blochii	Winghead Shark	CHONDRICHTHYES	EN	Decreasing	Marine
Mobula eregoodoo	Longhorned Pygmy Devil Ray	CHONDRICHTHYES	EN	Decreasing	Marine
Stegostoma tigrinum	Zebra Shark	CHONDRICHTHYES	EN	Decreasing	Marine
Aetobatus flagellum	Longhead Eagle Ray	CHONDRICHTHYES	EN	Decreasing	Marine
Aetomylaeus maculatus	Mottled Eagle Ray	CHONDRICHTHYES	EN	Decreasing	Marine
Aetomylaeus vespertilio	Ornate Eagle Ray	CHONDRICHTHYES	EN	Decreasing	Marine
Mobula thurstoni	Bentfin Devilray	CHONDRICHTHYES	EN	Decreasing	Marine
Acropora rudis		ANTHOZOA	EN	Decreasing	Marine
Mobula kuhlii	Shortfin Devilray	CHONDRICHTHYES	EN	Decreasing	Marine
Lamiopsis temminckii	Broadfin Shark	CHONDRICHTHYES	EN	Decreasing	Marine
Alopias pelagicus	Pelagic Thresher	CHONDRICHTHYES	EN	Decreasing	Marine

IBAT

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Holothuria scabra	Golden Sandfish	HOLOTHUROIDEA	EN	Decreasing	Marine
Holothuria lessoni	Golden Sandfish	HOLOTHUROIDEA	EN	Decreasing	Marine
Holothuria nobilis	Black Teatfish	HOLOTHUROIDEA	EN		Marine
Thelenota ananas	Prickly Redfish	HOLOTHUROIDEA	EN	Decreasing	Marine
Lethrinus mahsena	Sky Emperor	ACTINOPTERYGII	EN	Decreasing	Marine
Sypheotides indicus	Lesser Florican	AVES	EN	Decreasing	Terrestrial
Calidris tenuirostris	Great Knot	AVES	EN	Decreasing	Terrestrial, Marine
Sterna acuticauda	Black-bellied Tern	AVES	EN	Decreasing	Terrestrial, Freshwater
Neophron percnopterus	Egyptian Vulture	AVES	EN	Decreasing	Terrestrial, Freshwater
Aquila nipalensis	Steppe Eagle	AVES	EN	Decreasing	Terrestrial
Argyrosomus japonicus	Dusky Meagre	ACTINOPTERYGII	EN	Decreasing	Marine
Carcharhinus dussumieri	Whitecheek Shark	CHONDRICHTHYES	EN	Decreasing	Marine
Mobula mobular	Spinetail Devil Ray	CHONDRICHTHYES	EN	Decreasing	Marine

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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Caretta caretta	Loggerhead Turtle	REPTILIA	VU	Decreasing	Terrestrial, Marine
Crocodylus palustris	Mugger	REPTILIA	VU	Stable	Terrestrial, Freshwater
Dermochelys coriacea	Leatherback	REPTILIA	VU	Decreasing	Terrestrial, Marine
Dugong dugon	Dugong	MAMMALIA	VU	Decreasing	Marine
Hippocampus histrix	Thorny Seahorse	ACTINOPTERYGII	VU	Decreasing	Marine
Hippocampus trimaculatus	Three-spot Seahorse	ACTINOPTERYGII	VU	Decreasing	Marine
Lepidochelys olivacea	Olive Ridley	REPTILIA	VU	Decreasing	Terrestrial, Marine
Lutrogale perspicillata	Smooth-coated Otter	MAMMALIA	VU	Decreasing	Terrestrial, Marine, Freshwater
Macaca radiata	Bonnet Macaque	MAMMALIA	VU	Decreasing	Terrestrial
Panthera pardus	Leopard	MAMMALIA	VU	Decreasing	Terrestrial
Carcharhinus falciformis	Silky Shark	CHONDRICHTHYES	VU	Decreasing	Marine
Sphyrna zygaena	Smooth Hammerhead	CHONDRICHTHYES	VU	Decreasing	Marine
Urogymnus asperrimus	Porcupine Ray	CHONDRICHTHYES	VU	Decreasing	Marine

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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Geochelone elegans	Indian Star Tortoise	REPTILIA	VU	Decreasing	Terrestrial
Macaca radiata ssp. radiata	Dark-bellied Bonnet Macaque	MAMMALIA	VU	Decreasing	Terrestrial
Macaca radiata ssp. diluta	Pale-bellied Bonnet Macaque	MAMMALIA	VU	Decreasing	Terrestrial
Hippocampus kelloggi	Great Seahorse	ACTINOPTERYGII	VU	Decreasing	Marine
Physeter macrocephalus	Sperm Whale	MAMMALIA	VU	Unknown	Marine
Rusa unicolor	Sambar	MAMMALIA	VU	Decreasing	Terrestrial
Hemigaleus microstoma	Sickelfin Weasel Shark	CHONDRICHTHYES	VU	Decreasing	Marine
Nebrius ferrugineus	Tawny Nurse Shark	CHONDRICHTHYES	VU	Decreasing	Marine
Hemipristis elongata	Snaggletooth Shark	CHONDRICHTHYES	VU	Decreasing	Marine
Aonyx cinereus	Asian Small-clawed Otter	MAMMALIA	VU	Decreasing	Terrestrial, Marine, Freshwater
Epinephelus fuscoguttatus	Brown-marbled Grouper	ACTINOPTERYGII	VU	Decreasing	Marine
Gymnura zonura	Zonetail Butterfly Ray	CHONDRICHTHYES	VU	Decreasing	Marine

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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Rhinoptera javanica	Javanese Cownose Ray	CHONDRICHTHYES	VU	Unknown	Marine
Taeniurops meyeni	Blotched Fantail Ray	CHONDRICHTHYES	VU	Decreasing	Marine
Epinephelus polyphekadion	Camouflage Grouper	ACTINOPTERYGII	VU	Decreasing	Marine
Bolbometopon muricatum	Green Humphead Parrotfish	ACTINOPTERYGII	VU	Decreasing	Marine
Plectropomus areolatus	Squaretail Coralgrouper	ACTINOPTERYGII	VU	Decreasing	Marine
Montipora angulata		ANTHOZOA	VU	Decreasing	Marine
Pavona venosa		ANTHOZOA	VU	Unknown	Marine
Cataphyllia jardinei		ANTHOZOA	VU	Unknown	Marine
Pectinia lactuca	Lettuce Coral	ANTHOZOA	VU	Unknown	Marine
Montipora stilosa		ANTHOZOA	VU	Decreasing	Marine
Acropora hemprichii		ANTHOZOA	VU	Decreasing	Marine
Porites nigrescens		ANTHOZOA	VU	Unknown	Marine
Pavona decussata	Cactus Coral	ANTHOZOA	VU	Unknown	Marine
Pocillopora danae		ANTHOZOA	VU	Unknown	Marine

IBAT

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Symphyllia hassi		ANTHOZOA	VU	Unknown	Marine
Montipora friabilis		ANTHOZOA	VU	Decreasing	Marine
Heliopora coerulea	Blue Coral	ANTHOZOA	VU	Decreasing	Marine
Acropora pharaonis		ANTHOZOA	VU	Decreasing	Marine
Montastrea serageldini		ANTHOZOA	VU	Decreasing	Marine
Alveopora allingi		ANTHOZOA	VU	Unknown	Marine
Galaxea astreata		ANTHOZOA	VU	Unknown	Marine
Goniopora albiconus		ANTHOZOA	VU	Unknown	Marine
Turbinaria stellulata		ANTHOZOA	VU	Unknown	Marine
Montipora crassituberculata		ANTHOZOA	VU	Decreasing	Marine
Physogyra lichtensteini		ANTHOZOA	VU	Unknown	Marine
Acropora aculeus		ANTHOZOA	VU	Decreasing	Marine
Isopora crateriformis		ANTHOZOA	VU	Decreasing	Marine
Turbinaria peltata		ANTHOZOA	VU	Unknown	Marine

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Alveopora fenestrata		ANTHOZOA	VU	Unknown	Marine
Acropora palmerae		ANTHOZOA	VU	Decreasing	Marine
Poritipora paliformis		ANTHOZOA	VU	Unknown	Marine
Leptastrea aequalis		ANTHOZOA	VU	Decreasing	Marine
Acanthastrea brevis		ANTHOZOA	VU	Unknown	Marine
Pavona cactus		ANTHOZOA	VU	Unknown	Marine
Favites spinosa		ANTHOZOA	VU	Decreasing	Marine
Turbinaria mesenterina		ANTHOZOA	VU	Unknown	Marine
Isopora cuneata		ANTHOZOA	VU	Decreasing	Marine
Acropora echinata		ANTHOZOA	VU	Decreasing	Marine
Turbinaria reniformis		ANTHOZOA	VU	Unknown	Marine
Urogymnus granulatus	Mangrove Whipray	CHONDRICHTHYES	VU	Decreasing	Marine
Carcharhinus albimarginatus	Silvertip Shark	CHONDRICHTHYES	VU	Decreasing	Marine
Maculabatis gerrardi	Whitespotted Whipray	CHONDRICHTHYES	VU	Unknown	Marine

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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Himantura uarnak	Reticulate Whipray	CHONDRICHTHYES	VU	Decreasing	Marine
Chaenogaleus macrostoma	Hooktooth Shark	CHONDRICHTHYES	VU	Unknown	Marine
Pateobatis jenkinsii	Jenkins' Whipray	CHONDRICHTHYES	VU	Decreasing	Marine
Wallago attu		ACTINOPTERYGII	VU	Decreasing	Freshwater
Bagarius yarrelli		ACTINOPTERYGII	VU	Decreasing	Freshwater
Cirrhinus cirrhosus	Mrigal Carp	ACTINOPTERYGII	VU	Decreasing	Freshwater
Halophila beccarii	Ocean Turf Grass	LILIOPSIDA	VU	Decreasing	Marine
Anaphalis beddomei		MAGNOLIOPSIDA	VU	Decreasing	Terrestrial, Freshwater
Stichopus herrmanni	Curryfish	HOLOTHUROIDEA	VU	Decreasing	Marine
Actinopyga miliaris	Harry Blackfish	HOLOTHUROIDEA	VU	Decreasing	Marine
Actinopyga mauritiana	Surf Redfish	HOLOTHUROIDEA	VU	Decreasing	Marine
Albula glossodonta	Shortjaw Bonefish	ACTINOPTERYGII	VU	Decreasing	Marine
Mobula alfredi	Reef Manta Ray	CHONDRICHTHYES	VU	Decreasing	Marine

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Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Neophocaena phocaenoides	Indo-Pacific Finless Porpoise	MAMMALIA	VU	Decreasing	Marine
Mobula birostris	Giant Manta Ray	CHONDRICHTHYES	VU	Decreasing	Marine
Holothuria fuscogilva		HOLOTHUROIDEA	VU	Decreasing	Marine
Anacyclus pyrethrum	Atlas Daisy	MAGNOLIOPSIDA	VU	Decreasing	Terrestrial
Gallinago nemoricola	Wood Snipe	AVES	VU	Decreasing	Terrestrial, Freshwater
Pycnonotus xantholaemus	Yellow-throated Bulbul	AVES	VU	Decreasing	Terrestrial
Ciconia episcopus	Asian Woollyneck	AVES	VU	Decreasing	Terrestrial, Marine, Freshwater
Clanga hastata	Indian Spotted Eagle	AVES	VU	Decreasing	Terrestrial
Aetobatus ocellatus	Spotted Eagle Ray	CHONDRICHTHYES	VU	Decreasing	Marine
Omobranchus smithi		ACTINOPTERYGII	VU	Unknown	Marine
Oxymonacanthus longirostris	Harlequin Filefish	ACTINOPTERYGII	VU	Decreasing	Marine
Sousa chinensis	Indo-Pacific Humpback Dolphin	MAMMALIA	VU	Decreasing	Marine, Freshwater

Species Name	Common Name	Taxonomic Group	IUCN Category	Population Trend	Biome
Aetomylaeus nichofii	Banded Eagle Ray	CHONDRICHTHYES	VU	Decreasing	Marine
Hippocampus spinosissimus	Hedgehog Seahorse	ACTINOPTERYGII	VU	Decreasing	Marine
Oryza malampuzhaensis		LILIOPSIDA	VU	Decreasing	Terrestrial

IBAT

Recommended citation

IBAT Proximity Report. Generated under licence 2764-12731 from the Integrated Biodiversity Assessment Tool on 05 December 2020 (GMT). www.ibat-alliance.org

How to use this report

This report provides an indication of the potential biodiversity-related features - protected areas, key biodiversity areas and species - close to the specified location. It provides an early indication of potential biodiversity concerns, and can provide valuable guidance in making decisions. For example, this information can be helpful when assessing the potential environmental risk and impact of a site, categorising investments/projects, preparing the terms of reference for an impact assessment, focusing attention on key species of conservation concern and sites of known conservation value, and reviewing the results of an impact assessment.

The report does not provide details of potential indirect, downstream or cumulative impacts. Furthermore, the report should be regarded as a "first-step", providing a set of conservation values sourced from global data sets, and is not a substitute for further investigation and due diligence, especially concerning national and/or local conservation priorities.

Health and Safety Plan/ Response and Measures for COVID 19

'To Do' List / Protocol

Daily Drill:

- All workers to report some time earlier before the start of the shift. An attendance register is to be maintained for each shift. Masks are mandatory and social distancing[27] of at least 1m to be followed in the holding area. The focal point to provide information update.
- The workers need to wash their hands thoroughly (for at least 20-30 seconds) with soap or use sanitizers just before reporting screening. Adequate provision for hand washing, soaps, sanitizers needs to be made at the reporting location. Hand gloves mandatory for teams who are screening workmen, conducting medical check-up, disinfection
- Health screening to be done for all workers in the shift - including temperature monitoring using a non-contact thermometer. Any worker reporting with temperature higher than 37.3°C shall be sent to the isolation quarters and periodic observation be made.
    - In case the worker shows symptoms of the pandemic (including COVID-19), the procedures as laid down by the national and state laws need to be followed for testing, quarantine of at least 14 days or hospitalization, depending upon individual case.
    - All the co-workers in the shift, and other persons with known contact history in the construction site should be quarantined for a period of at least 14 days, followed by regular checkups/ observation/ examinations as laid down by the national and state laws.
- The workers found fit need to proceed to work with all required personal protective equipment, e.g. masks, gloves, goggles, boots, helmets, harness, etc.
- The workers be encouraged to avoid contact with co-workers as far as possible and wash their hands at regular intervals.
- Lunch/meal break be staggered into two so that workers proceed for lunch/meal at different times.
- There needs to be a provision of separate drinking bottles/cups for each worker, and these need to be cleaned thoroughly after meals.
- Proper hand washing arrangement (water/soaps/sanitizers) needs to be ensured at eating locations. Hand washing facilities are ideally to be located within 5m of toilets and at close range of eating space.
- The workers returning to the shift after lunch/meal break need to thoroughly wash their hands and follow the same procedure as that followed at the start of the shift.
- At the close of shift, the workers need to thoroughly wash their hands with soap/sanitizers etc.
- The PPE should be thoroughly washed/cleaned/sanitized (depending upon the type of PPE) after the shift ends.
- The meal timings should be phased in each shift. *There should be a difference of about 1 hour between two shifts* and the sensitive areas of the workplace should be cleaned / sanitized as far as possible.

[27] https://www.mohfw.gov.in/pdf/SocialDistancingAdvisorybyMOHFW.pdf

- The time between two shifts should be used for cleaning and sanitizing machines, hand tools and areas of regular contact – grab handles, control levers, steering wheels, control panels, etc. shall be regularly cleaned, and at the end of shifts used across shifts (or continuous operations) where operators/helpers change.

General Guidance for Contractors:

- Site specific risk assessment needs to be undertaken and emergency preparedness plan be prepared for all sites, including camp sites and construction sites.
- Protocols for medical treatment, etc. should be prepared/followed, including for reporting, referral, treatment and discharge as per national and state laws and other guidelines.
- A health and safety officer/environment to be deployed as the focal point at all project sites, and wherever, the same is not in place, urgent action needs to be taken by the contractor to recruit someone.
- Register for all the workers needs to be maintained, along with their health records. Prepare a profile of the workforce considering the following: i) Total number of workers who live in the labor camps; ii) Total number of workers who commute from their houses; iii) Number of male and female workers.
- Limit the number of workers on site at any one time to minimize contact, including exploring operations for multi-shift working rotation.
- Entry/exit to the site should be documented. Transport vehicles used during construction activities to carry construction materials should be sanitized on regular basis (at least once a day).
- Hygienic living conditions need to be ensured in the camp sites with regular/daily cleaning, adequate hand washing facilities. Adequate provision for solid waste management needs to be provided.
- Provide health and safety training/orientation on COVID19, or any other pandemic, to all workers and staff. *Some initiatives could be like training family members of construction workers to stitch masks and gloves to augment PPE.*
- Ensure adequacy of necessary supplies of energy, water, food, medical supplies, cleaning equipment, PPE (both for regular use and those for medical exigencies) etc.
- Quarantine and isolation facilities should be established in the camps (WHO Guidelines). The isolation facilities should have separate and dedicated toilets with proper arrangement for cleaning and removal of faeces.
- Any medical waste produced during the care of ill workers should be disposed as per the national and state laws or relevant guidelines (e.g. WHO guidelines from time to time). PPE used for medical treatment/care purposes should be stored securely and kept separate from other waste. Current WHO recommendations are to clean utility gloves or heavy duty, reusable plastic aprons with soap and water and then decontaminate them with 0.5% sodium hypochlorite solution after each use. Single-use gloves (nitrile or latex) and gowns should be discarded after each use and not reused;
- Incentivize workers lodging in the local community to move to site accommodation.
- The community should be made aware, through posters etc., of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community.

Additional guidance for good practice for Contractors:

- Follow national orders/circulars/guidelines issued from time to time
- Apply the guidelines/guidance notes referred in the document
- Practice the Daily Drill and General Guidance above.
- Camp sites and construction sites may require different approaches to avoid spread of COVID-19. Special care to be taken for supply chain related vehicles, personnel and material.
- Provide Contactless attendance system

The various guidelines / interim notes for construction sites have been prepared by several institutions and organizations, some of which are listed below:

a. The Ministry of Home Affairs and Ministry of Health and Family Welfare, Government of India issued several Orders/Circulars/Guidelines from time to time to be followed by the State governments, sectors and individuals :- (https://www.mha.gov.in/notifications/circulars-covid-19, https://www.mha.gov.in/sites/default/files/PR_ConsolidatedGuidelinesofMHA_28032020_0.pdf , https://www.mohfw.gov.in/. Further, amendments to these orders are updated from time to time on https://www.mha.gov.in/media/whats-new,
b. ILO's Guidance: Considerations for employment intensive works in response to COVID 19 (April 12, 2020): https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_741669.pdf
c. WB's ESF/Safeguards interim note: COVID-19 considerations in construction/civil works projects (April 7, 2020)
d. WHO's guidelines: Getting your workplace ready for COVID-19 (March 03, 2020) https://www.who.int/docs/default-source/coronaviruse/getting-workplace-ready-for-covid-19.pdf; Water, sanitation, hygiene, and waste management for the COVID-19 virus (March 19, 2020) https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-covid-19; Rational use of personal protective equipment (PPE) for coronavirus disease (March 19, 2020): https://apps.who.int/iris/bitstream/handle/10665/331695/WHO-2019-nCov-IPC_PPE_use-2020.3-eng.pdf .
e. IASC Interim Guidance: Scaling-Up Covid-19 Outbreak Readiness and Response Operations in Humanitarian Situations, Including Camps and Camp-Like Settings (March 17, 2020) https://interagencystandingcommittee.org/other/interim-guidance-scaling-covid-19-outbreak-readiness-and-response-operations-camps-and-camp
f. IDB's Guidance for infrastructure projects on COVID-19 https://www.idbinvest.org/en/download/9625
g. IFC Guidance: Workers' accommodation: processes and standards (2009) http://documents.worldbank.org/curated/en/604561468170043490/pdf/602530WP0worke10Box358316B01PUBLIC1.pdf

Sample Grievance Form

(To be made available in Tamil)

The Proposed Inclusive, Resilient and Sustainable Housing for the Urban Poor Project welcomes complaints, suggestions, queries, and comments regarding program implementation. We encourage persons with a grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

In case you want to include your personal details but want information to remain confidential, please type CONFIDENTIAL above your name.

Sample Environmental Site Inspection Report

Project Name
Contract Number

NAME: _____ DATE: _____
TITLE: _____ DMA: _____
LOCATION: _____ GROUP: _____

WEATHER
CONDITION:_____

INITIAL SITE CONDITION:_____

CONCLUDING SITE CONDITION:

Satisfactory _____Unsatisfactory _____Incident _____Resolved _____ Unresolved _____

INCIDENT:
Nature of incident:_____

Intervention Steps:_____

Incident Issues

Project Activity Stage	Survey	
	Design	
	Implementation	
	Pre-Commissioning	
	Guarantee Period	

Inspection

Emissions	Waste Minimization
Air Quality	Reuse and Recycling
Noise pollution	Dust and Litter Control
Hazardous Substances	Trees and Vegetation

Site Restored to Original Condition Yes No

Signature
_____

Sign off

Name **Name**

Position **Position**

Quarterly Environmental Monitoring Report Template

Introduction

- Overall project description and objectives
- Environmental categorization of each subproject as per ADB Safeguard Policy Statement (SPS 2009)

Project Safeguards Team

- Identify the role/s of Safeguards Team including schedule of on-site verification of reports submitted by consultants and contractors.

Name	Designation/Office	Email Address	Contact Number	Roles
1. PMU				
2. PIDs				
3. Consultants				

Overall Project and Subproject/Package Progress and Status

- Description of Sub-projects and Indicate
  - Status of design – preliminary design or final design,
  - Status of implementation - under bidding, contract awarded but no works yet, contract awarded with works (on-going construction), civil works completed, and/or Operation & Maintenance (O&M)

Package Number	Subproject Name / List of Works	Type of Contract (specify if DBO, DB or civil works)	Status of Design (specify if Preliminary Design, Final Detailed Design	Contract Status (specify if under bidding or contract awarded)	Status of Implementation (specify if Contract awarded with works (On-going Construction), Completed Works, or O&M phase)[28]	If On-going Construction	
						%Physical Progress	Expected Completion Date

[28] If on-going construction, include %physical progress and expected date of completion

- For package with "Contract Awarded", provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

Package-wise Contractor/s' Nodal Persons for Environmental Safeguards

Package Name	IEE Cleared by ADB (provide date)	Contractor	EHS Nodal Person	Email Address	Contact Number

Status of IEE per Subproject/Package

- Provide status of updated/final IEE[29] per package.

Package-wise Implementation Status

Package Number	Final IEE based on Detailed Design				Site-specific EMP or Construction (C-EMP) approved by Chief Engineer?[30] (Yes/No)	Remarks
	Not yet due (detailed design not yet completed)	Submitted to ADB (provide date of submission)	Disclosed on project website (provide link)	Final IEE provided to Contractor/s (Yes/No)		

Compliance Status with National/State/Local Statutory Environmental Requirements[31]

Package Number	Statutory Environmental Requirements[32]	Status of Compliance (Specify if obtained, submitted and awaiting approval, application not yet submitted)	Validity Date(s) (if already obtained)	Action Required	Specific Conditions that will require environmental monitoring as per environmental clearance, consent / permit to establish[33]

[29] IEE prepared based on preliminary design and cleared by ADB with condition that updated/Final IEE based on detailed design will be submitted.

[30] Works will not be allowed until C-EMP is approved by the PMU and/or PID.

[31] All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as Appendix all clearances obtained during the reporting period. If already reported, specify in the "remarks" column.

[32] Specify statutory requirements: environmental clearance? Permit/consent to establish? Forest clearance? Workers/Labor permit, etc.

Package Number	Statutory Environmental Requirements[32]	Status of Compliance (Specify if obtained, submitted and awaiting approval, application not yet submitted)	Validity Date(s) (if already obtained)	Action Required	Specific Conditions that will require environmental monitoring as per environmental clearance, consent / permit to establish[33]

Compliance Status with Environmental Loan Covenants

Schedule No. and Item (see Project Loan Agreement and list provisions / paragraph relevant to environmental safeguards, core labor standards, occupational EHS, community health and safety)	Covenant	Status of Compliance	Action Required

Compliance Status with the Environmental Management Plan (refer to EMP tables in approved IEE/s)

- Confirm in IEE/s if contractors are required to submit construction EMPs (C-EMP). If not, describe the methodology of monitoring each package under implementation.

- Provide over-all compliance of the contractors with C-EMP. This should be supported by contractors' monthly monitoring reports to PID(s) and/or verification reports of PID(s) or project consultants. Include as an Appendix supporting documents such as **signed** monthly environmental site inspection reports prepared by consultants and/or contractors.

Overall Compliance with C-EMP

Package	Status of C-EMP Implementation	Action Proposed and Additional

[33] Example: Environmental Clearance requires ambient air quality monitoring, Forest Clearance/Tree-cutting Permit requires 2 trees for every tree, etc.

Number	*(Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)*	Measures Required

- Provide description based on site observations and records:
  - Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
  - Identify muddy water was escaping site boundaries or muddy tracks were seen on adjacent roads.
  - Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these were intact following heavy rain.
  - Identify designated areas for concrete works, chemical storage, construction materials, and re-fuelling. Attach photographs of each area.
  - Confirm spill kits on site and site procedure for handling emergencies.
  - Identify any chemical stored on site and provide information on storage condition. Attach photograph.
  - Describe management of stockpiles in each work site (construction materials, excavated soils, spoils, etc.). Provide photographs.
  - Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
  - Provide information on barricades, signages, and on-site boards. Provide photographs.
  - Provide information on construction / workers camp(s). Provide photographs.
  - Provide information on work-related accidents and incidents. Describe actions implemented.
  - Provide information on if there are any activities being under taken out of working hours and how that is being managed.
- Provide list of trainings on environmental safeguards, core labor standards, and Occupational environment, health and safety conducted during the reporting period. Include ADB-organized workshop, trainings, seminars, etc)

Trainings, Workshops and Seminars Conducted

Date	Topic	Conducted by	No. of Participants (Total)	No. of Participants (Female)	Remarks

- Provide the monitoring results as per the parameters outlined in the approved EMP (or C-EMP when applicable).

Summary of Environmental Monitoring Activities (for the Reporting Period)[34]

Impacts (List from C-EMP)	Mitigation Measures (List from C-EMP)	Parameters Monitored (As identified in the C-EMP)	Method of Monitoring (Visual, Actual Sampling, etc.)	Location of Monitoring (Provide GPS Coordinates)[35]	Date of Monitoring Conducted	Person Who Conducted the Monitoring
Design Phase						
Pre-Construction Phase						
Construction Phase						
Operational Phase						

Monitoring of Environmental Impacts on Project Surroundings

- Confirm records of pre-work condition of roads, agricultural land or other infrastructure prior to starting to transport materials and construction.

Package Number.	Status of Pre-Work Conditions (Recorded / Not Recorded)	Baseline Environmental Conditions (air, water, noise) Documented (Yes / No)	Action Proposed and Additional Measures Required

[34] Attach Laboratory Results and Sampling Map/Locations
[35] If GPS coordinate is not available, provide landmark(s) and/or chainage.

- Provide information on monitoring activities conducted during reporting period. If not conducted, provide justification. Compare results with baseline and internationally recognized standards.[36]

Air Quality Monitoring Results

Site No.	Date of Testing	Site Location (Provide GPS Coordinates)[37]	Parameters (as required by statutory clearances or as mentioned in the IEE)			Remarks
			PM_{10} µg/m^3	SO_2 µg/m^3	NO_2 µg/m^3	

Water Quality Monitoring Results

Site No.	Date of Sampling	Site Location	Parameters (as required by statutory clearances or as mentioned in the IEE)						Remarks
			pH	Conductivity µS/cm	BOD mg/L	TSS mg/L	TN mg/L	TP mg/L	

Noise Quality Monitoring Results

Site No.	Date of Testing	Site Location	LA_{eq} (dBA) (as required by statutory clearances or as mentioned in the IEE)		Remarks
			Day Time	Night Time	

[36] ADB Safeguard Policy Statement (SPS) Appendix 1, para 33: During the design, construction, and operation of the project the borrower/client will apply pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines. These standards contain performance levels and measures that are normally acceptable and applicable to projects. When host country regulations differ from these levels and measures, the borrower/client will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower/client will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented in the SPS.

[37] If GPS coordinate is not available, provide landmark(s) and/or chainage.

Information Disclosure, Participation and Consultations

- Confirm PMU/PID/contractors provide project-related information to stakeholders, communities and/or affected people before and during construction works.[38]
- Provide information on consultations conducted during reporting period such dates, topics discussed, type of consultation, issues/concerns raised, safeguards team member present. Attach minutes of meetings (ensure English translation is provided), attendance sheet, and photos.

Date of Consultation	Location	Number of Participants (specify total, male and female)	Issues/Concerns Raised	Response to issues/concerns

Grievance Redress Mechanism

- **Grievance Redress Mechanism.** Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-related issues/complaints. Include as an Appendix Notification of the GRM (package-wise if applicable).
- **Complaints Received during the Reporting Period.** Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).

Summary of Key issues/concerns identified during the Reporting Period and Remedial Actions

- Provide corrective action plan which should include all issues/concerns, actions required to be implemented, responsible entities, and target dates.

Status of Corrective Actions from Previous Monitoring Report(S)

- Provide information on corrective actions to be implemented as reported in the previous Monitoring Report(s). Include status of implementation of feedbacks/comments/suggestions as provided by ADB, if any.

Corrective Action Plan Status

Issues/Concerns	Corrective Action	Status	Remarks

[38] Check EMP requirement on information disclosure. At a minimum, PID through the contractor should notify communities/affected persons/sensitive receptors 7 days and again 1 day before start of works.

Appendices

- Photos
- Records of consultations
- Copies of environmental clearances and permits (if not provided in the previous Monitoring Report
- Environmental site inspection report (if not provided in the previous Monitoring Report
- Other

Outline of Daily Monitoring Sheet for Contractors

Contractor Monitoring Sheet

Name of Subproject:
Location of Subproject:
Supervising PID:
Contractor:
Contractor EHS Supervisor (or equivalent):
Date of monitoring:

Summary of Findings

		Monitoring Item	Status	Remarks
		1. Compliance with Local Permit	**(Secured / Application**	
		Requirements	**Submitted / Not Applicable)**	
		Location/zoning permits		
		Permit to construct		
		Building permit		
		Transport / hauling permits		
		2. Compliance with IEE Requirements	**(Approved / Under**	
			Preparation / Submitted to	
			PID for Approval)	
		Construction EMP (C-EMP)		
		Corrective Action Plan, if any		
		3. Compliance with C-EMP		
		Construction Site	**(Satisfactory / Needs**	
			Improvement / Not	
			Implemented)	
	-	Conduct of toolbox talk		
	-	Use of PPE		
	-	Rest areas for male and female workers		
	-	Toilets for male and female workers		
	-	Medical kits		
	-	Drinking water supply		
	-	Dust control		
	-	Noise control		
	-	Solid waste management		
	-	Wastewater management		
	-	Chemicals storage (fuel, oil, etc.)		
	-	Siltation or erosion control		
	-	Heavy equipment staging / parking area		
	-	Barricades around excavation sites		
	-	Access to residential		
		houses/shops/businesses		
	-	Traffic routing signages		
	-	Lightings at night		
	-	Trench shoring / landslide protection		

	Construction Workers' Camp Site		**(Available / Needs**	
			Improvement / Not	
			Available)	

Quarters for male and female workers

Monitoring Item	**Status**	**Remarks**
- Sleeping utilities (e.g. beds, pillows, blankets, mosquito nets, etc.)		
- Power/Electricity supply		
- Drinking water supply		
- Toilets for male and female workers		
- General purpose water supply (cooking, washing, bathing)		
- Cooking facilities and areas		
- Solid waste management		
- Wastewater management		
- Pest control		
4. Implementation of GRM	**(Yes / No or None / Under Resolution)**	
Complaints		
Complaints resolution		
5. Environmental Quality Measurement	**(Passed / Failed / Not Applicable)**	
Ambient air quality sampling		
Noise level measurement		
Receiving water quality sampling		

Other Issues:

Attachments:

1. Copies of permits secured, if any.
2. Photos taken at worksites, if any.

(Photos attached in previous monitoring sheets should not be used again).
3. Laboratory results of environmental quality measurements, if any.

Prepared by:

Name, Designation and Signature

Minutes of the meeting for the ASI Meeting