

## ANNEXURE-C

### 1. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR THE PROJECT – HOUSING FOR SLUM DWELLERS, DEVELOPMENT OF NEW HOUSING TENEMENTS AT DUBRAYAPET, HOUSING PROJECTS

Sl. no	Envt. / Social attribute		Potential E & S impacts	Mitigation measures	Responsibility		Cost estimates in Rs. (in Cr.)
	Parameter	Aspect			Implementations	Supervision	
1	Project site / location Dubrayapet	Construction of New Housing Tenements	The housing build site at Dubrayapet falls within CRZ-II, for which CRZ clearance from Puducherry Coastal Zone Management Authority (PCZMA) need to be obtained prior to construction.	The required CRZ clearance from PCZMA has been obtained.	PSCDL	-	0.04 which will be met from project cost
2	Land Environment	Operation	Subsequent to the completion of the project, the temporary structures like sheds, bunds, etc., which were established in the project campus during construction will cause hindrance to the residents for their routine activities and also it will give shabby appearance.	As soon as the project works are completed, the temporary structures should be demolished and the solid waste / debris should be transported to the designated site. Thereafter landscaping in the project campus should be undertaken.	Contractor	Site Engineer & E & S officer	No cost

3	Water Environment	Construction	Owing to non-point discharges of sewage generated during construction will have impact on ground water quality if it leaches into ground.	The waste water generated during construction should be properly channelized and let into the nearby canal safely. The other waste viz: oil, debris etc shall be collected and disposed safely to avoid the insitu soil pollution.	Contractor	Site Engineer & E & S officer	No cost
		Operation	The waste water generated from the residential units should be properly disposed otherwise, it will flooding on the surface and cause pollution to the groundwater through leaching effect and also it will pollute the surface soil.	The waste water pipes of the dwelling units should be linked to the nearby existing UG drain system.	Contractor	Site Engineer	Cost of installation of UG drain system will be met from the project cost.

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4	Air Environment	Construction	The dust emissions during construction activities will have impact on the air quality environment and also have adverse impact on the health of the nearby residents.	Measures like sprinkling of water, covering of storage material and use of covering sheets should be done for trucks etc. may reduce the emissions.	Contractor	Site Engineer & E & S officer	No cost
		Operation	The emissions due to the vehicular movement may have slight impact on the air quality of the project site and will be insignificant	No mitigation.	No	No	No cost
5	Noise Environment	Construction	During construction activities, noise levels will increase due to use of construction machineries and vehicles in the project area. Unloading of construction materials, fabrication activities and operations of power shovels etc. are also the source of noise during the construction phase. The increases in noise level have the risk of causing effect on the peaceful environment of that area.	Ambient noise level in the site may be reduced through maintenance of construction equipments and adoption of noise control measures. The workers may be protected from noise pollution by providing ear muffs to them working in high noise zones. The windows and doors of the houses located in vicinity of the project site should be kept closed at the time of peak construction to prevent the flow of noise into the houses.	Contractor	Site Engineer & E & S officer	No cost

6	Biological Environment	Construction	Since the proposed project activities will not lead to habitat destruction or vegetation destruction, the project activities does not have any impact on biological environment.	No mitigation.	No	No	No cost
		Operation	Subsequent to the completion of project activities, plantation of tree saplings should be undertaken in the areas wherever possible to strengthen the biological environment.	Plantation of tree saplings should be undertaken in the area wherever possible. The residents of the housing complex may be involved on the development and maintenance of greenery in the campus.	PSCDL	Site Engineer & E & S officer	The cost of development of greenery shall be met from project cost

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7	Socio-Economic Environment	Construction	Failure to maintain good relation with the residents in the vicinity of the project site may create unnecessary conflicts with them which will ultimately reflect on the smooth execution of the project.	Maintenance of good relation with local community will facilitate for smooth operation of the project and engagement of local persons in the project operations will also help to increase the progress of the project.  Providing of basic facilities to the workers will protect the health of the personnel.	SPV and Contractor	Site Engineer and PEPO	No cost
		Operation	<ul style="list-style-type: none"> <li>Consequent to the completion of the housing project, the dwelling unit will be allotted to the homeless people belonging to low income group living in hutments and in platform.</li> <li>Failure to maintain the buildings regularly and to keep the campus free from solid waste, will result in deterioration of the buildings and unhealthy environment of the campus.</li> </ul>	<ul style="list-style-type: none"> <li>The completion of the project will lead to the satisfaction of the community who occupied the houses and also improvement in the living environment of the community.</li> <li>For sustainable maintenance of the building and to keep the campus neat and clean, permanent funding arrangement should be made to meet the expenses arising on the maintenance of building and campus.</li> </ul>	PSCDL & PSCB	Site Engineer & PEPO	No cost

8	Solid waste Environment	Construction	<p>Improper segregation, handing and disposal of solid waste generated during construction will have impact on the health and safety of personnel and on surface environment.</p> <p>Trespassing of rag pickers into site may lead to cause injuries / accidents.</p>	<p>Transportation of debris to the designated site.</p> <p>Usage of earth, sand and gravel for back filling of the earth.</p> <p>Disposal of other wastes by adopting precautionary measures.</p> <p>Restriction of entry of rag pickers into the solid waste yard through security arrangement.</p>	Contractor	Site Engineer	No cost
		Operation	<p>During operation, the domestic wastes generated from the households will be deposited in the dust bins to be placed in the residential colony. The domestic waste collected should be transported to the designated site without any spillage on the surface.</p>	<p>Solid waste deposited in the dust bins will be transported to the compost yard by the Municipal vendors on daily basis and adequate dust bins should be placed in common places of the housing complex to deposit the domestic waste without any spillage.</p>	Municipality and PSCB	Municipal and PSCB Engineers	Adequate No. of dustbins should be placed in the housing complex wherever necessary by Municipality / PSCB
9	Transportation Environment	Construction	<p>Transportation of construction equipments and construction materials and construction waste will cause adverse impact on the existing traffic of that area as well as on the routine mobilization of residents /</p>	<p>To mitigate the issue, the mobilization of construction equipments and transportation of construction materials to the project sites shall be undertaken during late night times.</p>	Contractor	Site Engineer	No cost

			students in the roads close to the site.	The workers and residents of the site may be advised to adhere the traffic regulations while entering the site or moving out of the site.			
10	COVID-19 pandemic measures	Construction	Amid COVID-19 pandemic, the workers of the site may be infected	<p>In order to prevent spread of COVID-19 infection it is important that necessary measures should be adhered strictly which are as follows</p> <ul style="list-style-type: none"> <li>(i) The workers should be insisted to get vaccinated for COVID_19 and they should be engaged only after verifying the respective certificates</li> <li>(ii) Physical distancing of at least 6 feet to be followed as far as feasible.</li> <li>(iii) Use of face covers/masks to be made mandatory.</li> <li>(iv) Frequent hand washing with soap (for at least 40-60 seconds)</li> </ul>	PSCDL & Contractor	Site Engineer & PEPO	0.05  The expenditure may be met from contingency fund

				<p>even when hands are not visibly dirty. Use of alcohol-based hand sanitizers (for at least 20 seconds) can be done wherever feasible</p> <p>(v) Respiratory etiquettes to be strictly followed. This involves strict practice of covering one's mouth and nose while coughing/sneezing with a tissue/handkerchief/flexed elbow and disposing off used tissues properly.</p> <p>(vi) Self-monitoring of health by all and reporting any illness at the earliest.</p> <p>(vii) Spitting shall be strictly prohibited.</p> <p>(viii) Installation &amp;</p>			
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				use of AarogyaSetu App shall be advised wherever feasible.			
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**2. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR THE PROJECT -  
COMPREHENSIVE DEVELOPMENT OF DHOBI KHANA AT SALAVAIYALAR NAGAR, DHOBI  
KHANA COMMUNITY FIX PROJECTS**

Sl.No	Envt. / Social attribute		Potential E & S impacts	Mitigation measures	Responsibility		Cost estimates in Rs.(Cr.)
	Parameter	Aspect			Implementations	Supervision	
1	Project site / location  Salavaiyalar Nagar, Lawspet	Development of Dhobi Khana	Detailed below		PSCDL	Site Engineer & E &S officer PEPO	1.87
2	Water Environment	Construction	Owing to non-point discharge of sewage generated during construction will have impact on ground water quality if it leaches into ground, and also affects the surface soil of the site.	The waste water generated during construction should be properly channelized and let into the nearby canal safely.	Contractor	Site Engineer & E &S officer	No cost
		Operation	During operation, it is expected that around 180 KLD of laundry wash water mixed with detergents may be generated and it would be let into nearby drain as waste and also domestic	In order to treat the waste water generated from washing yard at Dhobi Khana, an appropriate treatment plant should be constructed and the treated water should be reused for gardening and cleaning	Contractor	Site Engineer	Cost of installation of treatment plant system shall be met from the project cost.

			waste water will be generated from the residential units from Dhobi Khana.	purposes. The excess of treated water will be let into the nearby drain, and the domestic waste water should be properly diverted through proper drains to the nearby channel without any stagnation.			
3	Air Environment	Construction	The dust emissions during construction activities will have impact on air quality environment and also have adverse impact on the health of the nearby residents.	Measures like sprinkling of water, covering of storage material and use of covering sheets should be done for trucks etc. may reduce the emissions.	Contractor	Site Engineer and E &S officer	No cost
		Operation	The emissions due to the vehicular movement may have slight impact on the air quality of the project site and will be insignificant.	No mitigation.	No	No	No cost

4	Noise Environment	Construction	During demolition and construction activities, noise levels may increase due to use of machineries and vehicles in the project area. Unloading of construction materials, fabrication activities, and operations of power shovels etc. are also the source of noise during the construction phase. The increase in noise level will have the risk of causing effect on the peaceful environment of the project site.	Ambient noise level in the site may be reduced through maintenance of construction equipment and adoption of noise control measures. The workers may be protected from noise pollution by providing ear muffs to them working in noise zones. The door and windows of the houses located in the vicinity of the site should be kept closed at the time of peak noise to avoid the inflow of noise into the houses.	Contractor	Site Engineer and E & S officer	No cost
5	Biological Environment	Construction	Since the proposed project activities will not lead to habitat destruction or vegetation destruction, the project activities does not have any impact on biological environment.	No mitigation.	No	No	No cost
		Operation	Subsequent to the completion of project activities, plantation of tree saplings should be undertaken in the project sites wherever possible to strengthen the biological environment.	Plantation of tree saplings should be undertaken in the area wherever possible. The residents of the Dhobi Khana complex may be involved on the development and maintenance of greenery in the campus.	PSCDL	Site Engineer & E & S officer	The expenditure should be met from the project cost

























































