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**Ministry of Mahawali, Agriculture, Irrigation
And Rural Development**



Environmental Screening Report

of

**Modernization & Digitalization of Puthukudiyiruppu
Agrarian Services Center in Mullaitivu District**

Northern Province

December 2019

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Abbreviations

ADO	Agrarian Development Officer
AI	Agricultural instructor
ASC	Agrarian Service Center
BOC	Bank Of Ceylon
CDO	Coconut Development Officer
CEA	Central Environmental Authority
CSIAP	Climate Smart Irrigated Agriculture Project
DAD	Department Of Agrarian Development
DO	Development Officer
DPD	Deputy Provincial Director
GN	Grama Nilathari
MA	Management Assistant
MPCS	Multi Purpose Corporative Society
OA	Office Assistant
PRA	Participatory Rural Appraisal
PVC	Poly Vinyl Chloride
WB	World Bank

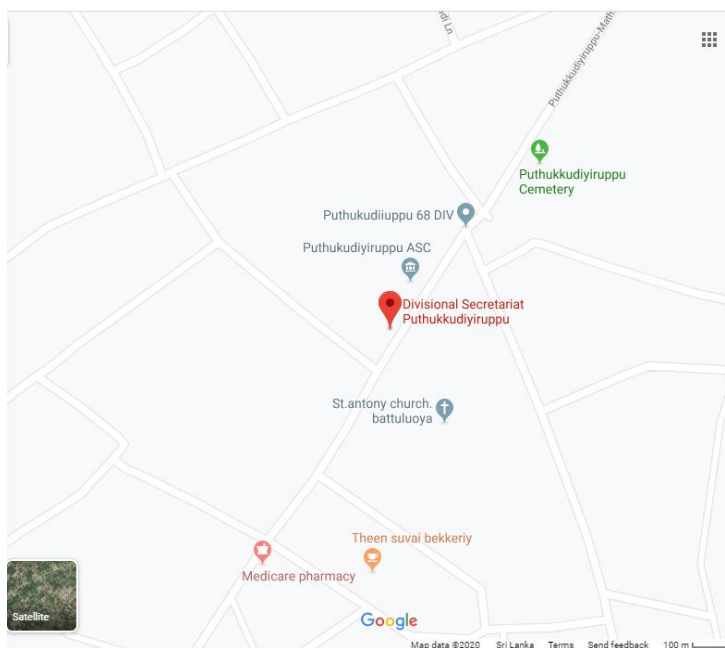
Environmental Screening Report for ASC Modernization

1. Project Identification

Project title	Modernization of Puthukudiyiruppu Agrarian Service Centre
Project Proponent	Department of Agrarian Development, Mullaitivu

2. Project Location

<p>Location <i>(relative to the nearest town, highway)</i></p>	<p>Province - Northern District - Mullaitivu DS Division- Puthukudiyiruppu Cascade – Peraru Hotspot area – Peraru riverbasin ASC Division- Puthukudiyiruppu ASC Local government ward – Puthukudiyiruppu GN Division – Puthukudiyiruppu West MU41</p>
<p>Definition of Project Area <i>(The geographical extent of the project & areas affected during construction)</i></p>	<p>The Project area is approx 1.2 km away from the main road (Puthukudiyiruppu - junction). In its immediate surrounding is the DS Office & Army point. The predominant land use type of the project area is agriculture. The project site is the existing ASC of Puthukudiyiruppu. The predominant land use type of the project area is agriculture. The propose project site is located in 0.3745 ha land area. The land ownership is with the agrarian services department. Therefore the site is a government owned land.</p>



3. Project Justification

<p>Need for the project</p> <p><i>(What problem is the project going to solve)</i></p>	<p>Puthukudiyiruppu Agrarian Services Centre (ASC) was destroyed due to the War in the 2008/2009. It was rehabilitated and reopened in the year 2018. This was after 1 years from the last rehabilitation of the ASC center. At present there are 8 rooms in the ASC. One is used to store fertilizer, and other 7 rooms are used by the officers. Agriculture Development Officer (ADO) is in-charge of the ASC center. There are 9 officers namely AI, CDO, 04 Dos, 02 MAs and OA. These officers are providing services to the farmers with available limited facilities .</p> <p>Therefore ASC need many improvements and most needed improvements are subjected as follows</p> <ol style="list-style-type: none"> 1. Construction of a Sales center 2. Construction of a Training center 3. Construction of Wash room 4. Construction of Boundary Wall & Fence <p>1. Need of Construction of a Sales center – Puthukudiyiruppu ASC is an important place for the farmers in the area. This area farmers are selling their products to middle men and get low income. But ASC can support to farmers by providing a sales center to get high income without the middle man involvement. Therefore, after the construction of a sales center ASC will be able to provide more services to farmers</p> <p>2. Need of Construction of a Training center From ASC farmers get the information and necessary instructions for their agricultural practices. But to get proper training people don't like to visit far away places. If the ASC can provide such facility it will greatly benefit to the farming community and therefore training center for the ASC is proposed to build.</p> <p>3. Need of Construction of wash room – Sanitary facilities are very poor in and the ASC. The existing toilet is tilted to a side of the old wall and the basement is not stable. People are afraid to use it but it is the only wash room available for the ASC staff and the beneficiaries. Therefore ,need to improve the sanitary facility by building a new wash room for the ASC.</p> <p>4. Need of Construction of Boundary Wall & Fence At present ASC doesn't have a boundary wall to protect the plants and cultivated vegetables. Therefore boundary wall construction is very important and it will protect the other resources of the ASC. Therefore after the construction of this proposed boundary wall more security will be available to the ASC.</p>
<p>Purpose of the project</p> <p><i>(what is going to be achieved by carrying out)</i></p>	<p>Purpose of the project is to develop an efficient, effective and productive 'one stop service center within the ASC. Therefore , below mentioned improvements are proposed in-order to provide better services to the community, to achieve project development objectives in 2020.</p>

<i>the project)</i>	
Alternatives considered <i>(different ways to meet the project need and achieve the project purpose)</i>	This is the only existing ASC that serves the Puthukudiyiruppu areas in the Mullaitivu District. The project aims to add improvements to the existing structure in order to gain operational efficiency and effectiveness. Hence ,alternatives to the project are not really relevant.

5. Project Description

6.

Proposed start date	Bid documents are ready by 04 th November expect to start in January 2020
Proposed completion date	Bid documents are ready by the end of November 2019. Proposed rehabilitation is expected to start in the January 2020 and expect to complete the construction by the mid of 2020 according to the Sub project proposal. Time frame is given (Annexure - I)
Estimated total cost	LKR 10,000,000.00
Present land ownership	State land under the control as commissioner of Department of Agrarian Development
Description of the project <i>(with supporting material such as maps, drawings etc attached as required)</i>	<p>Climate Smart Irrigated Agriculture Project (CSIAP) is financed by world bank is implemented in 11 districts including Mullaitivu by the Ministry of Agriculture aiming to improve the productivity and climate resilience of small holder farming in hotspot area.</p> <p>In the Northern province under the proposed ASC sub project proposal it is planned to implement ASC modernization interventions in the Mullaitivu District covering the Pereru river basin.</p> <p>From this project Martiampattu, Oddusuddan, Puthukudiyiruppu and Thunukkai divisional secretariat divisions will be benefited.</p> <p>Four ASC that are selected are namely Oddusuddan, Thunukkai, Muliyawalai and Puthukudiyiruppu.</p> <p>Puthukudiyiruppu ASC is expected to be modernized as a one stop service center through expansion and refurbishment of existing building to the cost of 10 million under the CSIAP for the purpose of providing optimum service to the farming community and conducive working environment to the staff who are working from</p>

	<p>ASC and other various departments. The proposed development consist of estimates for the construction of boundary wall & fence, sales center, wash room & training center. Summary of the estimates of proposed construction</p> <table border="1"> <thead> <tr> <th>Item No.</th> <th>Description</th> <th>Amount (Rs)</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>Construction of Sales Center</td> <td>2,468,702.38</td> </tr> <tr> <td>02</td> <td>Construction of Training center</td> <td>1,952,385.14</td> </tr> <tr> <td>03.</td> <td>Construction of Wash Room</td> <td>1,517,172.92</td> </tr> <tr> <td>04</td> <td>Construction of Boundary Wall& Fence</td> <td>1,287,121.40</td> </tr> </tbody> </table> <p>Refer Annexure - II for further details.</p>	Item No.	Description	Amount (Rs)	01	Construction of Sales Center	2,468,702.38	02	Construction of Training center	1,952,385.14	03.	Construction of Wash Room	1,517,172.92	04	Construction of Boundary Wall& Fence	1,287,121.40
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Project Management Team	<p>DPD of Northern Province Mr.Jeganathan Contact No - 0770327752 E-mail - jevajcha@gmail.com</p>															

5. Description of the existing environment

5.1 Physical features - Ecosystem components

Topography and terrain	<p>The Topography of Mullaitivu district is flat land. Gently sloping to the East and North sides. This district has 70 Km of coastal belt and four lagoons. Those lagoons are kokkulai , Nayaru, Nanthikadal and Mathalan . There is a high potentials for prawn culture in those lagoons. The elevation within the district varies from sea level to 36.5 meters. The Puthukudiyiruppu ASC is is approx 1.2 km away from the coastal area.</p>
Soil (<i>type and quality</i>)	<p>Sandy soil is dominant in the project site, Main soil groups can be identified as Red- Yellow Latosols.</p>
Surface water (<i>sources, distance from the site, local uses and quality</i>)	<p>The proposed development site is about 1.2 km from the coastal area and the water in the area is Brackish with high salinity.</p>
Ground water (<i>sources, distance from the site, local uses and quality</i>)	<p>Ground water from Dug wells are used for drinking purpose. The depth of the dug wells are approx 30 - 35 ft. There is no tube wells on or around the project area. The aquifer type of puthukudiyiruppu is coastal sand aquifer. Quality: Pure water with a low salinity levels .</p>
Flooding	<p>Flooding is reported in the area. Because drainage lines outlets are close to the ASC premises. Therefore precautions need to be taken for flood prevention.</p>

Air quality (any pollution issues)	Puthukudiyiruppu is largely a rural area, hence air pollution is not an issue. No major air pollution sources within 100 m radius of the project site are recorded other than the highway close by.
5.2 Ecological features – Eco-system components	
Vegetation (trees, ground cover, aquatic vegetation)	The land area of Puthukudiyiruppu within the ASC consists of some trees and home garden crops. Those are Cocos nucifera (Coconut tree), Borassus (Palmyra palm tree), Tectona grandis (Wild teak tree), Neem tree (Azadirachta indica), Portia tree (Thespesia populnea), Soorsop Tree (Annona Muricata) & Etc.
Presence of wetlands	None
Fish and wildlife habitats	None
Birds (waterfowl, migratory birds, others)	Common home garden birds resident in the area are found but the project site is a human modified area and hence no major avifaunal diversity is observed.
Presence of special habitat areas (special designations and identified sensitive zones)	The area has not been identified as a special habitat area and according to environment sensitive areas map of CEA, the proposed site does not fall into any sensitive areas.
Other features	
Residential/Sensitive Areas (Eg, Hospitals, Schools)	<p>There are few sensitive areas within 100 m radius of the project site, identified as follows:</p> <ul style="list-style-type: none"> • Ds office- Approx 10 m • Military camp – Approx 10 m <p>Other Sensitive areas are identified more than away from the project site. They are as follows:</p> <ul style="list-style-type: none"> • School – Sri subiramaniya Vidyalayam – Approx 900 m, Puthukudiyiruppu central college – Approx 1500 m • Hospitals - Puthukudiyiruppu Base Hospital – Approx 1000 m , Veterinary hospital – 300m • Samurthi bank – Approx 600 m • MPCS - Approx 900 m • Kovils –Kanthasamy Kovil – Approx 1600m, Shivan Kovil – Approx 1500 m • Post Office – Approx 900 m • Puthukudiyiruppu Public Market – Approx 1200 m • Bank – BOC – Approx 1300 m, Peoples bank – 1350 m

Traditional economic and cultural activities	Traditional economic and cultural activities within a 100 m radius of the project site are not observed.
Archeological resources (recorded or potential to exist)	Archeological resources within 100 m radius of the project site are not recorded

7. Public Consultation

Public consulted	Consultation method	Date	Details/Issues raised
Mr. N.Sivathas	Group Discussion (Group Discussion was conducted during the PRA)	11.11.2019	Farmer Contact No - 0773452720 Farmers expect good service from the ASC and they have given their consent for the proposed work. Community expect for upgrade of the common facilities in the ASC. Community informed to build more sanitation facilities as the Toilet is very poor .
Mr.S.Mariyathas	Group Discussion (Group Discussion was conducted during the PRA)	11.11.2019	Farmer Contact No - 0772727420 Community consented & Supported for the propose rehabilitation work.
Mr.S.Kiristhuran	Group Discussion (Group Discussion was conducted during the PRA)	11.11.2019	Farmer Community consented & Supported for the propose rehabilitation work.
Mr.V.Thirunavukarasu	Group Discussion (Group Discussion was conducted during the PRA)	11.11.2019	Farmer Contact No - 0772416723 Community consented & Supported for the propose rehabilitation work.

7. Screening for Potential Environmental Impacts

	Screening question	Yes	No	Significance of the effect (Low, moderate, high)	Remarks
Project Design					
1	Will the project cause the removal of large trees in the locality?	✓		Moderate	<ul style="list-style-type: none"> • For the Boundary wall construction, Need to be cut some trees from the site. Those are: <ul style="list-style-type: none"> • Dry neem tree (Azadirachta indica) – 01, Diameter – 60 cm • Neem tree (Azadirachta indica) – 05, Diameter – 30 cm, Very small trees • Portia tree (Thespesia populnea) - 01, Diameter – 40 cm, Very small tree • Seema kiluvai trees – nearly 25 – 30 • Soorsop Tree (Annona Muricata) – 01, Diameter – 10 cm, Very small tree • Puthukudiyiruppu Agrarian development officer informed no objection from community regarding removal of this tree as there is no alternative place to construct the building. • Per removed tree 2 or more trees can be planted in a space provided by the ASC. • The need of the tree removal has verbally informed to the Grama Niladari of the area and the process of getting the permission from divisional secretariat relevant officer is in progress . • As per their permission, tree

	Screening question	Yes	No	Significance of the effect (Low, moderate, high)	Remarks
					removal will be permitted. (ADO will follow this process) • Therefore from the construction activity nearly 33 trees (Large trees - 01, Small trees - 32) will be removed from the site.
2	Will the project use energy efficient, water efficient green building design principles in the design of the building	✓		Moderate	The building has proposed Asbestos free roofing materials. Zinc aluminum high tensile roofing sheets are estimated for the roofing instead of Asbestos. Also for the ceiling pine wood ceiling is proposed.
Project Construction					
3	Will construction and operation of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)		✓		No physical changes to the locality that will lead to change of water bodies.
4	Will construction of the project cause soil erosion within the site due to steep grade or soil content? What is the risk of landslides taking place in the area?	✓		Low	Due to the removal of trees, there is a chance for soil erosion.

	Screening question	Yes	No	Significance of the effect (Low, moderate, high)	Remarks
5	Will the Project involve generation and disposal of solid wastes during construction? Are their wastes in the hazardous category?	✓		Moderate	Expected solid waste during the construction - Concrete waste, Metal waste (part of Nails), Polyethene, paper & Card board waste (packing material), electrical wiring waste, Plastic waste (Paint bucket, PVC items), Roofing material waste, Remaining Raw Materials (sand, stone, gravel, cement & Etc)
6	Will the Project release pollutants or any hazardous, toxic or noxious substances to air?		✓		No any Chemical blasting or any hazardous substance anticipated.
7	Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	✓		Low	During construction, noise and vibration impacts can be anticipated. Compaction, loading and unloading of materials are potential sources of noise and vibration during construction.
8	Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater?	✓		Low	Wash offs from material stockpiles, Sedimentation of surface waterways due to site clearing is likely but not with severe impacts.
9	Will the project cause localized flooding and poor drainage during construction Is the project area located in a flooding location?	✓		Low	During the construction, If the waste drainage system is not properly maintained, there is a chance for flooding and water stagnation.

	Screening question	Yes	No	Significance of the effect (Low, moderate, high)	Remarks
10	Will there be any risks and vulnerabilities to public safety due to physical hazards during construction of the Project?	✓		Low	safety issues in terms of injuries due to construction work, using heavy machinery could be anticipated. However such incidences can be avoided with proper precautions exercised on health and safety aspects.
11	Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected due to construction work?	✓		Low	Creation of dust and noise are the potential environmental impacts which are temporary in nature.
12	Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	✓		Low	There are few sensitive areas within 100 m radius of the project site identified. They are as follows: <ul style="list-style-type: none"> • Ds office- Approx 10 m • Military camp - Approx 10 m
13	Are there any areas or features of high landscape or scenic value on or around the location which could be affected by construction activity?		✓		No any Features of high landscape or scenic value within 100 m radius of the project site.

	Screening question	Yes	No	Significance of the effect (Low, moderate, high)	Remarks
14	Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests which could be affected by the project?		✓		No any ecological sensitive areas within 100 m radius of the project site.
15	Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, migration, which could be affected by the project?		✓		No any areas on or around the location used by protected, important or sensitive species of fauna and flora are recorded.
16	Will any part of the project's construction activities be located in a previously undeveloped area where there will be loss of greenfield land		✓		No any green field land on the project location .

	Screening question	Yes	No	Significance of the effect (Low, moderate, high)	Remarks
17	Will the project cause any offsite impacts from example burrowing, quarrying, relocation of facilities etc?		✓		
18	Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?		✓		No any historic or cultural importance within 100 m radius of the project site.
19	Are their sanitary units planned?	✓		Low	Yes, one unit is planned the waste will be collected onsite into a cesspit.
	Operational Impacts				
20	Will the project lead to stagnant water and drainage problems causing increased mosquito breeding	✓		Low	During the construction, If the waste water is not properly discarded, water stagnation is possible. This area is very dry for 9 months of the year, Hence water stagnation will not be a serious issue.
21	Will the project involve removal and disposal of wastes ?	✓		Low	During operations, cesspits will require desludging and the sludge will be removed to the Sludge Treatment Plant in Mullaitivu. Other municipal waste that are non-biodegradable will be moved to the Municipal waste site where as organics will be composted on site.

8. Permits and clearances needed for project to proceed

	Permit/Clearance	Yes	No	TBD	Remarks
1	National Environmental Act		✓		
2	Soil Conservation Act		✓		
3	Coast Conservation Act		✓		
4	Fauna and flora protection ordinance		✓		
5	Local Authority Act		✓		
6	Irrigation Ordinance		✓		
7	Any other		✓		

9. Conclusions


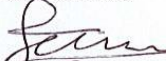
Conclusions		
Summary of key issues	Low/High/Medium	Rating
Air pollution including dust generation that can affect near by vegetation	Low	N/S
Noise pollution & vibration that can affect nearby structures	Low	N/S
Solid waste disposal	Low	N/S
Public /Occupational safety hazard	Low	N/S
Clearing/Closure of construction site/Labour camps	Low	N/S
N/S - Effect not significant, or can be rendered insignificant with mitigation SP - Significant positive effect SN - Significant negative effect U - Outcome unknown or cannot be predicted, even with mitigation		

10. Screening Decision Recommendation

Majority of the potential adverse effects can be classified as general construction related impacts and can be mitigated on site with proper engineering interventions. These Potential impacts are temporary in nature.

Implementation of the environmental management plan is sufficient to mitigate the identified impacts.

11. Details of Persons Responsible for the Environmental Screening

<p>Screening report completed by</p> <p>Kesiga.S Environmental Safeguard Officer- NP Email: kesiga.sampasivam@gmail.com</p>	<p>Date 31.01.2020</p> <p> Signature</p>
<p>Screening report reviewed by M. Udula J. Sedera</p> <p>Environmental Officer -PMU Email: jeny.usedera@gmail.com</p>	<p>Date 20.02.2020</p> <p> Signature</p> <p>M. U. J. Sedera Environmental Safeguard Officer Project Management Unit Climate Smart Irrigated Agriculture Project (CSIA) Ministry of Agriculture</p>
<p>Screening report Recommended by</p> <p>Janaka Jayawardana Social & Environmental Specialist -PMU Email : jaya.ybj@yahoo.com</p>	<p>Date 22.02.2020</p> <p> Signature</p> <p>Dr. Y. B. J. N. Jayawardana Environmental & Social Safeguard Specialist Project Management Unit Climate Smart Irrigated Agriculture Project (CSIAP) Ministry of Agriculture</p>
<p>World bank Clearance given by</p> <p>Nadeera Rajapaksha Environmental Safeguard Specialist Email: nrajapakse@worldbank.org</p>	<p>Date 01.04.2020</p>

Environmental Management Plan (EMP)

Title of Project:-Puthukudiyiruppu ASC Modernization & Digitalization

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
01.	Public complaints and lack of community support for the project implementation	Information Disclosure among Stakeholders	<ol style="list-style-type: none"> Discussions should be conducted with the Residents in the area have to be briefed of the project, purpose and design and outcomes via a documented community consultation session - <i>This should be done immediately once the contractor is mobilized.</i> The contractor should take note of all impacts, especially access issues and safety hazards that will be of concern to the residents and take necessary measures as stipulated in the EMP to mitigate them. The contractor will maintain a log of any grievances/complains and actions taken to resolve them. A copy of the EMP should be available at all times at the project supervision office on site. 	Engineering Cost	Contractor	DAD Regional Engineer & Provincial DPD , (PDPD, Environmental Safeguard Officer (ESO)
02.	Exposing and damaging of	Site preparatory work	Upon discovery of physical cultural material during project implementation work, the following should be carried out;	Engineering Cost	Contractor	DAD Regional Engineer

Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
				Implementation	Compliance Monitoring
physical cultural resources		<ol style="list-style-type: none"> 1. Immediately stop construction activities. 2. With the approval of the resident engineer delineate the discovered site area. 3. Secure the site to prevent any damage or loss of removable objects. In case of removable antiquities or sensitive remains, a night guard should be present until the responsible authority takes over. 4. Through the Resident Engineer, notify the responsible authorities, the Department of Archaeology and local authorities within 24 hours. 5. Submit a brief chance find report, within a specified time period, with date and time of discovery, location of discovery, description of finding, estimated weight and dimension of PCR and temporary protection implemented. 6. Responsible authorities would be in charge of protecting and preserving the site before deciding on the proper procedures to be carried out. 7. An evaluation of the finding will be performed by the Department of Archaeology who may 			& PDPD , ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
			<p>decide to either remove the PCR deemed to be of significance, further excavate within a specified distance of the discovery point and conserve on-site, and/or extend/reduce the areas demarcated by the contractor etc. This should ideally take place within about 7 days.</p> <p>8. Construction work could resume only when permission is given from the Department of Archaeology after the decision concerning the safeguard of the heritage is fully executed.</p>			
03.	Impact to water bodies	<p>1. Construction on site debris</p> <p>2. Solid waste & construction waste</p> <p>3. Construction of Toilet pits</p> <p>4. Piled up excavated Soil at the site</p> <p>5. Mosquito</p>	<ol style="list-style-type: none"> 1. During the rainy season to prevent runoff debris solid waste should be properly segregated and disposed. 2. Run off debris should not be accumulated in water bodies . 3. Toilet pits should be constructed maintaining the 50 feet distance from the wells . 4. Excavated Soil should be covered until it is properly removed or compacted to prevent siltation in the water bodies. 5. All the utensils used for construction should be covered to avoid water accumulation to prevent Mosquito breeding grounds. 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
		breeding				
04.	Over extraction of natural resources	Material Sourcing	<ol style="list-style-type: none"> 1. The contractor is required to ensure that sand, aggregates and other quarry material are sourced from licensed suppliers. The contractor is required to maintain the necessary licenses and environmental clearances for all burrow and quarry material 2. Sourcing of any material from protected areas are strictly prohibited. 3. If the contractor uses a non-commercial burrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed. 4. The contractor should submit in writing all the relevant numbers and relevant details of all prerequisite licenses etc. and report of their status accordingly. 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD, ESO
05.	Impact on existing habitats, trees	<ul style="list-style-type: none"> • Vehicle and machinery movements 	<p>Due to the construction work 3 trees will be removed from the ASC premises.</p> <ol style="list-style-type: none"> 1. But the contractor shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance. 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD, ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
			<p>2. If such action is unavoidable, the Engineer shall be informed in advance to verify and report on the technical justification for the trees that will be required to be removed.</p> <p>3. The following steps are to be followed if trees are identified for removal .</p> <p>i. Identify and document the number of trees that will be affected with girth size & species type</p> <p>ii. Trees shall be removed from the construction sites before commencement of construction with prior permission from the concerned department (LA).</p> <p>iii. Compensatory plantation by way of Re-plantation of at least twice the number of trees cut should be carried out in the project area.</p> <p>iv. The contractor shall adhere to the guidelines and recommendations made by the Central Environmental Authority (CEA), if any with regard to felling of trees and removal of vegetation.</p> <p>v. Removed trees of economic value must be handed over to the State Timber Corporation.</p>			
06.	Spreading of Invasive	▪ Vegetation clearing▪	4. Close monitoring of transportation, storage of borrowing material for the spread of any invasive	Engineering	Contractor	DAD Regional

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
		Material transportation	species must be done. 5. Invasive plants species removed should be destroyed onsite without transporting to another place.	Cost		Engineer & PDPD , ESO
07	Spreading of Invasive	<ul style="list-style-type: none"> ▪ Vegetation clearing ▪ Material & transportation 	<ol style="list-style-type: none"> 1. Vehicles should be covered during transportation of cleared vegetation to and from the construction site. 2. Borrow material to be brought from properly identified borrow pits and quarry sites, the sites should be inspected in order to ensure that no invasive plant species are being carried with the borrow material. 3. Washing the vehicles should be conducted periodically to prevent carrying any invasive species 4. The construction site should be inspected periodically to ensure that no invasive species are establishing themselves at the site. 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO
08.	Air Pollution including dust generation that can affect nearby vegetation	<p>Setting up of material storage yards, and removal of vegetation</p> <ul style="list-style-type: none"> ▪ Transport of 	<p>In the construction method statement,</p> <ol style="list-style-type: none"> 1. the contractor should clearly designate areas for maintaining material stock piles, waste stock piles, labour camps and vehicle maintenance yards. 2. These dust emitting sources should be located away from human activity and natural drainage paths as much as possible. 3. All heavy equipment and machinery shall be fitted 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
	and households	construction material and storage on site	<p>in full compliance with the national and local regulations.</p> <ol style="list-style-type: none"> 4. Stockpiled soil and sand shall be slightly wetted before loading, particularly in windy conditions. 5. The site should be wetted at least 2/3 times a day during dry weather to keep dust levels low. 6. Vehicles transporting soil, sand and other construction materials shall be covered. Limitations to speeds of such vehicles necessary. Transport through densely populated area should be to avoid air emissions. 7. There should be no burning of wastes on site. 8. Until removal to arranged disposal sites, waste from demolition shall be held stockpiled in a place with minimal interference with local drainage paths and obstruction to traffic, local residents. 			
09.	High Noise & Vibration levels that can affect nearby structures and wildlife	<ul style="list-style-type: none"> ▪ Operation of equipment and machinery. ▪ Material storage and transport 	<ol style="list-style-type: none"> 1. Working time for noise/vibration generation activities should be restricted and carried out only from 6.00 am to 7.00 pm. 2. All equipment and machinery should be operated of noise not to exceed 75 dB (during construction) as practical as possible. 3. Regularly maintenance of all construction vehicles and machinery to meet noise control regulations stipulated by the CEA in 1996 (Gazette Extra Ordinary, No 924/12). If the construction activities happen during the night time, it is necessary to 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD, ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
			<p>maintain the noise level at below 50 dB.</p> <p>4. Use of mechanically driven saw blades for tree felling will make the noise levels restrict to only a short period of time.</p> <p>5. Construction equipment and machinery should be maintained in good condition. Contractor shall submit the list of high noise/vibration generating machinery & equipment to the Personal Protective Equipment's for approval.</p>			
10.	Blocking of surface drainage paths leading to localized flooding and ponding of water	<ul style="list-style-type: none"> • Site Preparation including provision of access roads, material/waste piles 	<p>Until transported out to arranged disposal sites, debris and waste from site preparation work and shall be stockpiled in a place with minimal interference with local drainage paths and obstruction to traffic and local residents. The contractor shall identify areas for stockpiling material and waste.</p> <p>1. The stockpiles should be suitably covered to minimize wash-offs to nearby waterways.</p> <p>2. If impacts to surface drainage cannot be avoided leading to ponding of rain water and inconvenience to people, the contractor must provide an adequate surface drainage system to safely remove water from the site to canal to avoid on site ponding or flooding.</p> <p>3. Proper planning to avoid construction during rainy season.</p> <p>4. Preventing total blockage of streams/ providing alternative drainage path during construction.</p>	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
11.	Prevention of possible Soil erosion, sedimentation of water bodies	Construction work ▪ Removal of top soil	<ol style="list-style-type: none"> 1. Soil stockpiles and other construction material should not be placed within care 2. Installing and maintaining permanent erosion and sediment control measures should be taken not to block waterways. 	Engineering Cost	Contractor	
12.	Damage to Flora and wildlife	Vegetation clearing	<ol style="list-style-type: none"> 1. Speed limits and operating times for the construction vehicles should be imposed. 2. Due consideration should be given to carefully clearing of vegetation avoiding destruction of habitats of fauna. 3. It is recommended to do the project work day time only. 	Engineering Cost	Contractor	DAD
13.	Issues of use water supply for the construction activities	Supply of Water for the site	<ol style="list-style-type: none"> 1. The contractor should arrange adequate supply of water for the project purpose throughout the construction period from a source agreed upon with the engineer. 2. Water may not be obtained for project purposes, including for labour camps, from public or community water supply schemes without a prior approval from the relevant authority. 3. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority 	Engineering Cost	Contractor	Regional Engineer & PDPD , ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
			4. Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority.			
14.	Solid Waste Disposal	<ul style="list-style-type: none"> ▪ Waste from labour camps 	1. The contractor shall make a list of all types of waste resulting from the construction activity, and obtain direction from the Local Authority(LA) on possible disposal sites for each waste type.	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO
15.	Solid Waste Disposal	<ul style="list-style-type: none"> ▪ Demolisher items ▪ Asbestos debris generate from demolished items 	<p>2. Any hazardous type of waste shall be dealt with special care and instructions from the LA.</p> <p>3. The contractor shall document all types of waste generated and removed from the site and the disposal locations.</p> <p>4. The contractor shall remove waste from the site each day and dispose of the waste in the LA approved site/s.</p>			
16.	Public/occupational safety hazard	<ul style="list-style-type: none"> ▪ Site clearing, storage of equipment, material etc ▪ Increased traffic of heavy vehicles for 	<p>Training</p> <p>1. The contractor must ensure that all workers, including managers are trained on occupational health and public safety risks and mitigation measures for the site, prior to commencement of construction.</p> <p>2. Personal Protective Equipment All workers will be provided with necessary PPEs (basic should include safety helmet, protective footwear and high visibility jackets).</p>	Engineering Cost	Contractor	

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
		material transportation ▪ Noise and vibration of construction machinery	<ol style="list-style-type: none"> 3. Gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary should be maintained in stock at the site office. 4. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored. 			
17.	Public/occupational safety hazard	Site safety measures & Workers safety measures	<p>Site Delineation and Warning Signs</p> <ol style="list-style-type: none"> 1. The entire construction site should be delineated using devices such as cones, lights, tubular markers, orange and white strips and barricades to inform oncoming vehicular traffic and pedestrians in the area about work zones. 2. People should not be allowed to enter the construction area, where the construction activities take place close to public waiting/visiting areas, Barricading screens should be used to ensure public will not be exposed to safety risks from construction activities where the new building construction takes place. 3. Dangerous warning signs should be raised to inform public of particular dangers and to keep the public away from such hazards. 	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO

Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
				Implementation	Compliance Monitoring
		<p>4. Overloading of vehicles with materials should be controlled</p> <p>5. Construction wastes should be removed as much as possible within 24 hours from the site to ensure public safety.</p> <p>6. The safety inspection checklist must look to see that the delineation devices are used, whether they are appropriately positioned, if they are easily identifiable and whether they are reflective.</p> <p>7. Equipment safety Work zone workers use tools, equipment and machinery that could be dangerous if used incorrectly or if the equipment malfunctions. Inspections must be carried out to test the equipment before it is used, so that worker safety can be secured. Inspections should look for evidence of wear and tear, frays, missing parts and mechanical or electrical problems.</p> <p>8. All equipment and vehicles to be stored/parked away from public visiting areas, barricaded and warning signs posted.</p>			

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
18.	Public/occupational safety hazard	Prevention of Accidents and workers safety Public safety measures	<p>Emergency Procedures</p> <p>9. An emergency aid service must be in place in the work site.</p> <p>10. During health and safety training, site staff should be properly briefed as to what to do in the event of an emergency, such as who to notify and where to assemble in an emergency. This information must be conveyed to employees by the site manager on the first occasion a worker visits the site.</p> <p>Information management</p> <p>11. Develop and establish contractor's own procedure for receiving, documenting and addressing complaints from the affected public and nearby communities.</p> <p>12. Provide advance notice to local communities by way of information boards or leaflet, during village committees about the schedule of construction activities, interruption to services and access etc.</p>	Engineering Cost	Contractor	DAD Regional Engineer & PDPD, ESO
19.	Construction camps conditions	Camp site management	<p>Construction camps</p> <p>01. Construction camps should have adequate sanitation facilities for construction workers to control transmission of infectious diseases.</p> <p>02. Avoid housing workers in camps and provide socio-economic benefits locally by employing local people. If there is no alternative to employing workers from</p>	Engineering Cost	Contractor	DAD Regional Engineer & PDPD, ESO

	Potential Environmental Impacts and Risk Level	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Responsibility	
					Implementation	Compliance Monitoring
			elsewhere			
20.	Construction camps conditions	Camp site management	1. locate accommodation camps away from communities on land acquired from willing sellers. Provide labor camps with adequate sanitation, waste disposal and health facilities according to labor laws. Clear work camp sites after use and reinstate vegetation. Conduct programs to raise worker awareness of HIV/AIDS.	Engineering Cost	Contractor	DAD Regional Engineer & PDPD , ESO

Annexure – I Activity plan/ Time frame Puthukudiyiruppu ASC modernization & Digitalization (Civil work)

S N	Activities	2019					2020										
		July - Sep			Oct - Dec		Janu - Mar		April - June			July - Sep		Oct - Dece			
01	Conducting IEC Campaign																
02	Preparation of the sub project proposal ASC modernization and digitalization																
03	Preparation of technical designs & estimates																
04	Data collection for screening																
05	Writing the screening check list																
06	Write the ESR & EMP																
07	Submit to PMU																
08	Get the clearance from the WB																
09	Tender calling procedure																
10	Civil work commence																
11	Supervision & Monitoring																
12	Completion of construction work																
13	Hand over civil work																

exure – III Attendance sheet for public consultation meeting participation



The World Bank

Climate Smart Irrigated Agriculture Project (CSIAP), Northern Province.

IEC Campaign / PRA Attendance of Participations / public consultation meeting attendance

Date: 11.11.2019

Venue: Puthukudiyeruppu

இல	பெயர்	விலாசம்	ஆண் / பெண்	தொ.பே. இல	கையொப்பம்
01	பி.இராஜன்	கீர்த்தி கிராமம்	ஆண்	0773452720	சுமந்தா
02	செ.சுப்பிரமணியன்	,, ,,	ஆண்	0772727420	சினிதா
3	தி.சுப்பிரமணியன்	கீர்த்தி கிராமம்	ஆண்	650294016	சுமந்தா
04	சி.சுப்பிரமணியன்	கீர்த்தி கிராமம்	ஆண்	0772416723	சி.சுப்பிரமணியன்
05	பி.சுப்பிரமணியன்	கீர்த்தி கிராமம்	ஆண்	077654720	பி.சுப்பிரமணியன்