**Climate Smart Irrigated Agriculture Project (CSIAP)**

*IDA Financed project*

*of the*

**Ministry of Mahawali, Agriculture, Irrigation**

**and Rural Development**

# Environmental Screening Report

# Modernization & Digitalization

# of

# Horowpothana Agrarian Services Centre

# Anuradhapura District

# North Central Province

# 2020

## Contents

## Abbreviations

| | |
|---|---|
| ASC | Agrarian Service Center |
| DO | Divisional Officer |
| DS | Divisional Secretariat |
| GND | Grama Niladhari Division |
| NCP | North Central Province |
| CSIAP | Climate Smart Irrigated Agriculture Project |
| DSD | Divisional Secretariat Division |
| CBO | Community Base Organization |
| De. O | Development Officer |
| AI | Agriculture Instructure |
| APRA | Agriculture Production and Research Assistant |
| CDO | Coconut Development Officer |
| ICT | Information and Communication Technology |
| DAD | Department of Agrarian Development |
| ADO | Agrarian Development Officer |
| AMSL | Average Mean Sea Level |
| DL | Dry zone Low Country |
| OFC | Other Field Crops |
| DPDO | Deputy Project Director Office |

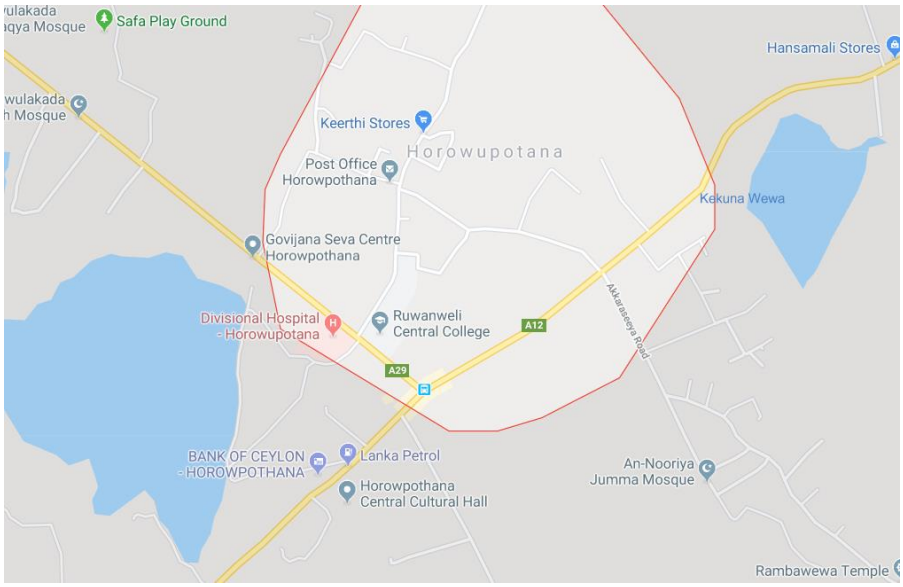
**Climate Smart Irrigated Agriculture**

**Environmental Screening Report for Component 2 Investments**

# 1. Project Identification

| | |
|---|---|
| Project title | Renovation of Horowpothana ASC |
| Project Proponent | Climate Smart Iirrigated Agriculture Project (CSIAP) |

# 2. Project Location

| | |
|---|---|
| Location (*relative to the nearest town, highway*) | Province : North Central Province (NCP)<br>District : Anuradhapura<br>DS Division : Horowpothana<br>ASC : Horowpothana<br>GND : 28 Horowpothana<br>  <br><br>Source : Google Map |

<table>
<tr>
<td>Definition of Project Area</td>
<td>This project proposes to renovate Horowpothana ASC by repairing of the main building and conference hall. Expansion of DO room and meeting room, paving floor tiles, fixing new ceiling, replacing doors and windows, replacing existing wiring system and painting are main rehabilitation works under this project.<br><br>This project site is belonging to DL1e agro-ecological region. Average Annual Rainfall is 1250-1750 mm and Average Temperature is 27.3$^0$ C. The main rainy season is North-East monsoon. Two dry periods can be seen within the year which is June to September and January to March. Paddy fields, heavy and shrub forests, home gardens, uplands (cultivated or not cultivated) and water bodies are the main Land uses of the Horowpothana ASC range. Land use patterns and important demographical details of the Horowpothana ASC range are as follows.<br><br>
<table>
<tr><td>Total extent of ASC range</td><td>279.34 km$^2$</td></tr>
<tr><td>Total families</td><td>7169</td></tr>
<tr><td>Farm families</td><td>5711</td></tr>
<tr><td>Paddy lands</td><td>15816.3 acs</td></tr>
<tr><td>Heavy and shrub forests</td><td>21621 acr</td></tr>
<tr><td>Uplands</td><td>2934 acr</td></tr>
<tr><td>Home gardens</td><td>6844 acr</td></tr>
<tr><td>Water bodies</td><td>3357 acr</td></tr>
</table>
When considering adjacent features of the project site, there are private lands and houses at the North, South and West directions. Horowpothana – Kabithigollawa road located in the East direction of the project site.</td>
</tr>
</table>

## 3. Project Justification

| | |
|---|---|
| Need for the project<br><br>(*What problem is the project going to solve*) | ASC office of the Horowpothana is the main service provider for farming communities living in 22 GND in Horowpothana DSD. Major activities and services provided by the ASC are supplying inputs for agriculture such as fertilizer, seeds and planting materials, financial loans, agrichemicals, etc. ASC Provides instructions on agriculture technologies, the introduction of new technologies, facilitate of agro products and the strengthening of farmer CBOs. The proposed renovation and improvements are very important for the proper functioning of the ASC when analyse the present condition.<br>At present 26 officers are directly working in ASC (DO, De.O, AI's, APRA's) and other field officers (CDO, Agro Insurance Officer, Cashew Development Officer etc.) are come and work at the office weekly or monthly to do their duties with ASC staff and to meet relevant farmers. |

| | |
|---|---|
| | But they have not given a permanent place to work due to inadequate space of ASC.<br>Available spaces of ASC as follows.<br>Committee room : 24m$^2$<br>Govi jana bank : 30m$^2$<br>Agriculture Extension room : 28m$^2$<br>DO office room : 12m$^2$<br>Meeting hall : 32m$^2$<br><br>• Demand for the services has increased and existing building space is not enough to provide better services. The meeting hall is not adequate to conduct meetings even for the present office staff of the ASC.<br>• The condition inside the building is very poor (ceiling, floor, door and windows, walls, etc.).<br>• There is no suitable place to conduct training or awareness Program for officers and farmers. Officers of the ASC are facing an unpleasant situation when conducting the training program. It may negatively affect to transfer of knowledge, skills and technologies.<br>• Not adequate sanitary facilities for staff and visitors. |
| Purpose of the project (*what is going to be achieved by carrying out the project*) | • To provide efficient and effective ASC services for the farming community in Horowpothana area.<br>• Establish communication and information centers with ICT backup.<br>• Develop market facilities for agricultural products of farmers in Horowpothana ASC.<br>• Provide a satisfactory working environment for both the ASC staff and customers. |
| Alternatives considered (*different ways to meet the project need and achieve the project purpose*) | Agrarian Services are not provided by any other office therefore, no alternatives. |

## 4. Project Description

| | |
|---|---|
| Proposed start date | |
| Proposed completion date | Proposed completion date of project is 30th September 2020. |
| Estimated total cost | Preliminaries LKRs: 660,000.00<br>Repair of main building LKRs: 5,789.008.55<br>Renovation of conference hall LKRs: 3,094,26.80<br>Other (Administration& Contigencies LKRs: 2,836,72.65<br>**Grand total** **LKRs: 12,380,000.00** |
| Present land ownership | The Department of Agrarian Development (DAD) owns the land. Therefore, this is a Government-owned land. The ADO is the in-charge of the ASC and necessary approval has to be obtained by the Commissioner-General of Agrarian Development. |
| Description of the project (*with supporting material such as maps, drawings etc attached as required*) | The main components of sub project are,<br>1 Repairs of main building<br>2 Renovation of conference hall.<br><br>Under these repairs, expansion of DO room and meeting room, paving floor tiles, fixing new ceiling, replacing doors and windows, replacing existing wiring system and painting are included. |
| Project Management Team | Project cost estimated by the DAD in Anuradhapura and the Project implementation will be done by the same department.<br>Project Monitoring will be done by Deputy Project Directors office (DPDO) of the CSIAP at North Central Province. |

## 5. Description of the existing environment

| **5.1 Physical features – Ecosystem components** | |
|---|---|
| Topography and terrain | Elevation of project site is 84 m AMSL Generally, project site is an undulate terrain with a gentle slope. (Slope 2-4 %)<br>Agro-ecological region is DL1e<br>Average Rainfall is 1250 -1750 mm<br>Average Temperature is 27.3$^0$ C |

| | |
|---|---|
| Soil (*type and quality*) | Gravel soil is dominant in the project area. Reddish Brown Earth soil is the main soil type.<br>Top soil depth is varying around 0 – 30 cm |
| Surface water<br>(*sources, distance from the site, local uses and quality*) | There are no water bodies (tank or any other surface water collecting places) within 200 m from the project site. But, surface water in the project site flows to Horowpothana maha wewa tank and it is located from 300m away from the West side of ASC. Kakuna wawa tank is found from 500m at the East side of the project site. People used tank water for fulfilment of agriculture and domestic purposes in this area.<br><br>Quality of water is moderate. |
| Ground water<br>(*sources, distance from the site, local uses and quality*) | Domestic well is located in the project site but its water not use for drinking or any other domestic purposes due to distance between well and toilet is around 40 feet. The water use for watering trees in ASC premises during the dry periods.<br>Ground water from agro wells, domestic wells, and tube wells are used for agriculture purposes by farmers living in the area of Horowphothana.<br><br>General aquifer type is shallow water table. Ground water table in the project site is vary throughout the year as follows,<br>November, December, January – Very high (Sometimes up to ground level)<br>February to June – Moderate (Bellow 3m – 5m from ground level)<br>July to October – Low (Bellow 6m from ground level or can't see water in water bodies.)<br>Ground water from large well and tube well is used for Horowpothana water supply scheme. |
| Flooding | The Project site was not subjected to flooding during last 10 years.<br>But, some GN divisions served by the Horowpothana ASC (about 7 GND and 1200 acers) affected by floods due to over flow of Yanoya river.<br>Duration of flooding is varying 1 -6 days during the Maha season. Also, it depends on spill days of Hurulu wawa Reservoir.<br>Depth of floods varying 1 – 5 feet's. |
| Air quality<br>(*any pollution issues*) | Air pollution sources are not recoded in project site or surrounding area. |

| 5.2 Ecological features – Eco-system components | |
|---|---|
| Vegetation (*trees, ground cover, aquatic vegetation*) | The Tree species of the project site are Coconut (Cocos nucifera), Mango (Mangifera indica), Guava (Psidium guajava), Satin wood (Chloroxylon swietania) and Neem (Azadiracta indica).<br>Coconut is the dominant tree species in the project site. Around 50% of the land in the ASC have good vegetation canopy cover.<br>Ground is covered by grasses and low possibility to soil erosion. Dominant grass species and other weedy species are Creeping tick trefoil (Desmodium triflorum), Nut grass (Syperus rotundus), Love grass (Eragrostis atropiodes), White weed (Ageratum conyzoides), Sleeping grass (Mimosa pudica) etc.<br>When considering about vegetation in surrounding areas of the project site, home gardens, paddy fields, small forest patches, OFC cultivation, Fruit cultivation and vegetable cultivation are dominant land uses in the ASC range. |
| Presence of wetlands | Wetlands are not available in the project site but more than 200m distance from the project site, there are tanks, cultivated paddy lands, marshy lands and small ponds etc. |
| Fish and wildlife habitats | The project site belongs to the ASC centre. There are no natural water bodies in the project site or disturbance to the wild animals due to the construction.<br>Normally wild animals are not come to the project site from forest area. But some animals are come to the project site from surrounding areas which are living in around the homestead and nearest area of project site such as Squirrel ( Sciuridae), Iguana (Varanus bengalensis), Giant squirrel (Ratufa macroura), Common garden lizard (Calotes versicolor) Rats (Bandicota indica), Mongoose, (Herpestes edwadsi) water monitor (Varanus),and some kind of snakes and birds. |
| Birds (*waterfowl, migratory birds, others*) | Water fowl can't see in the project site but can see surrounding area of wetlands.<br>Migratory birds can see seasonally such as Yellow bird (Oriolus xanthornus), Indian pitta (Pitta brachyuran) Paradise flycatcher (Terpsiphone paradisi) |

| | |
|---|---|
| | Other birds like Spotted dove (Spilopelia chinensis), Common myna (Acridotheres tristis), parrot (Loriculus beryllinus), House sparrow (Passer domesticus), Common tailorbird (Orthotomus sutorius), Yellow billed babbler (Argya affinis), Long billed sunbird, Ceylon gray hornbill (Ocyceros gingalensis), Peacock (Pavo cristatus) Brown headed barbet (Psilopogon zeylanncus) Red vented bulbul (Pycnonotus cafer), House Sparrow (Psser domesticus) are common birds observed in the project area. |
| Presence of special habitat areas (*special designations and identified sensitive zones*) | There is no special habitat within the 100m distance in the project site or surrounding area. |
| **Other features** | |
| Residential/Sensitive Areas (*Eg, Hospitals, Schools*) | There are no sensitive areas adjacent to the project site. Horowpathana divisional hospital is located about 300m distance from the ASC. Horowpathana central college is about 1km distance from the site. |
| Traditional economic and cultural activities | Traditional economic and cultural activities are not observed. |
| Archaeological resources (*recorded or potential to exist)* | Archaeological resources are not observed in the project site. |

## 6. Public Consultation

| Public consulted | Consultation method | Date | Details/Issues raised |
|---|---|---|---|
| Divisional officer | Discussion | 13/11/2019 | Divisional Officer requested to increase ASC space and paving floor tiles, requested new wash room for ASC. |
| Staff of ASC | Informal Meeting | 08/01/2020 | Discussed about how ASC function during construction period.<br>ASC staff request furniture for office. They also requested air condition facilities for meeting hall. |
| Meeting with Agrarian committee | Formal meeting | 23/01/2020 | Agrarian committee questioned about their responsibilities on this project. They requested training program regarding the project activities. |

**(Signature sheet attached Annex 1)**

**Notes:**

- Public consultation planned together with the social team
  - Informal group meeting
  - A few interviews with a cross section of potentially affected and benefitted community

## 7. Screening for Potential Environmental Impacts of the ASC modernization work.

| | 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? | | √ | | This project will not cause removal of any trees. |
| 2 | Will the project use energy efficient, water efficient green building design principles in the design of the building | √ | | **Moderate** | Asbestos will not use for ASC repairs. Instead use Zinc aluminium materials for roofing. Contractors are encourage to use led free paints in this project. |
| **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) | | √ | | This project conduct only rehabilitation works. |
| 4 | Will construction of the project cause soil erosion within the site due to steep grade or soil content?<br><br>What is the risk of landslides taking place in the area? | | √ | | Soil burrow pit or soil pile are not needed to this project because, rehabilitation only planned. Low slope and good grass cover are cause to minimize soil erosion.<br>Landslides are not taking place in the project site. |
| 5 | Will the Project involve generation and disposal of solid wastes during | √ | | Low | Construction debris will be generated such as bricks & cement. The contractor is |

| | Screening question | Yes | No | Significance of the effect (Low, moderate, high) | Remarks |
|---|---|---|---|---|---|
| | construction? Are their wastes in the hazardous category? | | | | responsible to manage the construction waste properly until it is disposed. According to the EMP of this project contractor should be disposed solid waste in proper way. |
| 6 | Will the Project release pollutants or any hazardous, toxic or noxious substances to air? | √ | | **Low** | Hazardous toxic or noxious substances will not be expected. But construction works cause to formation of dust. Contractor should be taken to precautions for minimized dust formation. |
| 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? | | √ | | This is a small scale building construction project and hence the risk of pollution to water sources is insignificant . The area is not having water sources or derange lines flow towards agricultural fields. |
| 9 | Will the project cause localized flooding and poor drainage during construction<br><br>Is the project area located in a flooding location? | | √ | | This project is small scale rehabilitation project. Poor drainage conditions not observed in this site .<br><br>Project area is not located in flood prone area. |
| 10 | Will there be any risks and vulnerabilities to public safety due to physical hazards during construction of the Project? | √ | | Low | People will come to ASC office for obtain day to day services during construction period. Therefore, all the safety measures should practice to prevent any physical hazards in the project site. Contractor must be mobilized to get precautions before start the project. |

| | Screening question | Yes | No | Significance of the effect (Low, moderate, high) | Remarks |
|---|---|---|---|---|---|
| 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? | | √ | | This small scale rehabilitation project will not have large number of vehicle movements. Therefor not susceptible to congestion of roads . The nearest road is the Horowpothana to Kabithigollawa road. |
| 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? | | √ | | Not affected |
| 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? | | √ | | Not such locations. |
| 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 sensitive areas on or around the project site. |
| 15 | Are there any areas on or around the location which are used by protected, | | √ | | There are no any significant areas on or around the location used by protected, Important, or |

| | Screening question | Yes | No | Significance of the effect (Low, moderate, high) | Remarks |
|---|---|---|---|---|---|
| | important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, migration, which could be affected by the project? | | | | sensitive species of fauna or flora. |
| 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, new green field will not be used. Because, this rehabilitation is done on existing building. |
| 17 | Will the project cause any offsite impacts from example burrowing, quarrying, relocation of facilities etc? | √ | | Low | Sand, mettle, and gravel are need for construction activities. Quarries should be having permission from relevant authorities and maintenance of quarries should be observed. |
| 18 | Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project? | | √ | | There are no historic and cultural importance features on or around the project site. |
| 19 | Are their sanitary units planned? | √ | | Low | Sanitary facilities should be provided for workers by contractor. |
| | **Operational Impacts** | | | | |
| 20 | Will the project lead to stagnant water and drainage problems | | √ | | This project will not lead to increase mosquito breeding places because, possibility for |

| | Screening question | Yes | No | Significance of the effect (Low, moderate, high) | Remarks |
|---|---|---|---|---|---|
| | causing increased mosquito breeding | | | | stagnant water and drainage problems are very low. |
| 21 | Will the project involve removal and disposal of wastes? | √ | | Moderate | Clearance has to be obtaining from local authority for a specific disposal site. |

## Permits and clearances needed for project to proceed

| | Permit/Clearance | Yes | No | TBD | Remarks |
|---|---|---|---|---|---|
| 1 | National Environmental Act | √ | | | Informed to CEA by DAD on development activity |
| 2 | Soil Conservation Act | | √ | | |
| 3 | Coast Conservation Act | | √ | | Not applicable |
| 4 | Fauna and flora protection ordinance | | √ | | Not in sensitive area |
| 5 | Local Authority Act | √ | | | Building plan approval from local authority |
| 6 | Irrigation Ordinance | | √ | | |
| 7 | Any other | | | | |

## 9. Conclusion

| Summary of key issues | High/Medium/Low | Rating |
|---|---|---|
| Soil erosion, Drainage problems, and stagnant water | Low | N/S |
| Disposal of solid waste | Moderate | N/S |
| Contamination of pollutants on land or water bodies, surface water or ground water | No | N/S |
| Quarries for supplying of sand metals and gravel | Low | NS |
| Formation of dust | Low | N/S |
| Physical hazards | Low | N/S |
| N/S - Effect not significant, or can be rendered insignificant with mitigation<br>SP - Significant positive effect<br>SN - Significant negative effect<br>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

| | |
|---|---|
| **Screening report completed by**<br><br>**D.H.M.S.S. Dissanayake,**<br>**Environment safeguard officer,**<br>**CSIAP – NCP.** | **Date**<br>**30.02.2020**<br><br>*Signature* |
| **Screening report reviewed by**<br>**M. Udula J. Sedera**<br><br>**Environmental Officer –PMU**<br><br>**Email:** jeny.usedera@gmail.com | **Date**<br>**19.03.2020**<br><br>*Signature*<br>M. U. J. Sedera<br>Environmental Safeguard Officer<br>Project Management Unit<br>Climate Smart Irrigated Agriculture Project (CSIAP)<br>Ministry of Agriculture |
| **Screening report Recommended by**<br><br>**Janaka Jayawardana**<br>**Social & Environmental Specialist -PMU**<br>**Email :** jaya.ybj.@yahoo.com | **Date**<br>**19.03.2020**<br><br>*Signature*<br>Dr. Y. B. J. N. Jayawardana<br>Environmental & Social Safeguard Specialist<br>Project Management Unit<br>Climate Smart Irrigated Agriculture Project (CSIAP)<br>Ministry of Agriculture |
| **World bank Clearance given by**<br><br>**Nadeera Rajapaksha**<br>**Environmental Safeguard Specialist**<br>**Email:**nrajapakse@worldbank.org | **Date**<br>**01.04.2020** |

**En**vironmental Management Plan (EMP)

**Title of Project:-Horowpathana ASC Modernization**

| | 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 | • Discuss with residents in the area and brief the project purpose, design and outcomes to the users and the staff of the ASC because they are the affected persons due to construction activities.<br>• **This should be done immediately once the contractor is mobilized.**<br><br>***1.*** The contractor should take note of all impacts,<br>• Access issues<br>• Safety hazards to the residents<br>• Take necessary measures as stipulated in the EMP to mitigate them.<br><br>**2.** The contractor must maintain a log of any grievances/complains and actions taken to resolve them.<br><br>3. EMP copy should be available at all times at the project supervision office on site. | Engineering Cost | Contractor | DAD Regional Engineer & Provincial Deputy Project Director (PDPD) & Environmental safeguard officer ( 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 |
| | | | | | | |
| 02. | **Exposing and damaging of physical cultural resources** | Site preparatory work | Upon discovery of physical cultural materials during project implementation work, the following should be carried out;<br>1. Immediately stop construction activities.<br>2. With the approval of the resident engineer delineate the discovered site area.<br>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.<br>4. Through the Resident Engineer, notify the responsible authorities, the Department of Archaeology and local authorities within 24 hours.<br>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 | 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 dimension of PCR and temporary protection implemented.<br><br>6. Responsible authorities would be in charge of protecting and preserving the site before deciding the proper procedures to be carried out.<br><br>7. An evaluation of the finding will be performed by the Department of Archaeology who may 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.<br><br>8. Construction work could resume only when permission is given from the" Department of Archaeology " | | | |
| 03. | **Impact to water** | | **1.** During the rainy season, to prevent runoff debris, solid waste should be properly segregated and disposed**.** | 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 |
| | **bodies and prevent Mosquito breeding** | 1.Construction site debris<br><br>2.Solid waste & construction waste<br><br>3.Construction of Toilet pits<br><br>4.Piled up excavated Soil at the site<br>5.Mosquito breeding | 2. Run off debris should not be accumulated in water bodies.<br><br>3. Toilet pits should be constructed maintaining the 50 feet distance from the wells.<br><br>4. Excavated Soil should be covered until it is properly removed or compacted to prevent siltation in the water bodies.<br><br>5. Avoid water accumulation in the construction site. Need to cover all the utensils to prevent water accumulation. Use anti mosquito oil or soil to water accumulating sites to prevent Mosquito breeding | | | PDPD & ESO |
| 04. | **Extraction of natural resources** | Material Sourcing | 1. The contractor required to ensure that sand, aggregates and other quarry material are sourced from licensed suppliers. The contractor required to maintain the necessary licenses and environmental | 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 |
| | | | clearances for all burrow and quarry material<br><br>2. Sourcing of any material from protected areas and/or designated natural areas, including tank beds, are strictly prohibited.<br><br>3. The contractor must uses a non-commercial burrow/quarry sites, the sites should be remediated accordingly once material sourcing has been completed.<br><br>4. The contractor should submit in writing all the relevant numbers and relevant details of all pre-requisite licenses etc. and report of their status accordingly. | | | |
| 05. | **Impact on existing habitats, trees** | • Tree removal & Vehicle machinery movements | 1. Tree removal is not observed and not recommended in the site.<br>2. The contractor shall make every effort to avoid removal and/or destruction of trees, including those of religious, cultural and aesthetic significance.<br>3. If such action is unavoidable, the Engineer shall be informed in advance to verify and | 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 |
| | | | report on the technical justification for the trees that will be required to be removed.<br>• The following steps are to be followed if trees are identified for removal during the rehabilitation .<br>**1.** Identify and document the number of trees that will be affected with girth size & species type<br>2. Trees shall be removed from the construction sites before commencement of construction with prior permission from the concerned department (LA).<br>3. Compensatory plantation by way of Re-plantation of at least twice the number of trees cut should be carried out in the project area.<br>4. 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. | 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 |
| | | | 5. Removed trees of economic value must be handed over to the State Timber Corporation. | | | |
| 06. | **Spreading of Invasive** | ▪ Vegetation clearing▪ Material transportation | 1. Close monitoring of transportation, storage of borrowing material for the spread of any invasive species must be done.<br>2. Invasive plants species removed should be destructed onsite without transporting to another place. | Engineering Cost | Contractor | DAD Regional Engineer, PDPD & ESO |
| 07. | **Spreading of Invasive** | ▪ Vegetation clearing▪ Material &transportation | 1. Vehicles should be covered during transportation of cleared vegetation to and from the construction site.<br>2. Borrow material to be ensured that no invasive plant species are being carried with the burrow material. Also the 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 |

| | 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 |
| | | | 3. If invasive plants are found with debris, they should not dumped in other areas but need to destroy at the site and should be buried. | | | |
| 07. | **Air Pollution including dust generation that can affect human health and nearby vegetation Obstruction of drainage paths** | ▪ Transport of construction material , storage and removal of vegetation | In the **construction method statement**,<br>1. Dust emitting sources should be located away from human activity and natural drainage paths as much as possible. To avoid the dust generation follow below methods<br>• Stockpiled soil and sand shall be slightly wetted before loading, particularly in windy conditions.<br>• The site should be wetted at least 2/3 times a day during dry weather to keep dust levels low.<br>• Vehicles transporting soil, sand and other construction materials shall be covered.<br>• Limitations to speeds of such vehicles necessary. Transport through densely populated area should be avoiding air emissions. | 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 |
| | | | • There should be no burning of wastes materials on site.<br>2. All heavy equipment and machinery shall be fitted in full compliance with the national and local regulations.<br>3. To avoid block of drainage path demolition shall be held stockpiled in a place until arrange to remove, those and obstruction to traffic, local residents. | | | |
| 08. | **Noise & Vibration levels that can affect human health , nearby structures and wildlife** | ▪ Operation of equipment and machinery.<br>▪ Material storage and transport | 1. Working time for noise/vibration generation activities should be restricted and carried out only from 6.00 am to 7.00 pm.<br>2. All equipment and machinery should be operated not to exceed 75 dB (during construction) as practical as possible.<br>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 maintain the noise level at below 50 DB. | 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 |
| | | | 4. Use of mechanically driven saw blades for tree felling will make the noise levels restrict to only a short period of time.<br>5. Construction equipment and machinery should be maintained in good condition.<br>6. Contractor shall submit the list of high noise/vibration generating **machinery & equipment** to the Personal Protective Equipment's for approval. | | | |
| 09. | **Localized flooding due to blocking of surface drainage paths and ponding of water** | • Site Preparation including provision of access roads, material/ waste piles | 1. Until remove, debris and waste from site preparation work and shall be stockpiled in a place , not to local drainage paths and obstruction to traffic and local residents. The contractor shall identify areas for stockpiling material and waste.<br>2. The stockpiles should be suitably covered to minimize wash-offs to nearby waterways.<br>3. 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 .. | 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 |
| | | | 4. Properly plan to avoid construction during rainy season.<br>5. Preventing total blockage of streams/ providing alternative drainage path during construction. | | | |
| 10. | **Soil erosion, sedimentation of nearby water bodies** | ▪ Removal of top soil during construction work | 1. Soil stockpiles and other construction material should be placed with care.<br>2. Installing and maintaining permanent erosion and sediment control measures should be taken not to block waterways. | Engineering Cost | Contractor | DAD Regional Engineer, PDPD & ESO |
| 12. | **Damage to Flora and wildlife** | Vegetation clearing | 1. Speed limits and operating times for the construction vehicles should be imposed.<br>2. Due consideration should be given to carefully clearing of vegetation avoiding destruction of habitats of fauna.<br>3. It is recommended to do the project work day time only. | Engineering Cost | Contractor | DAD Regional Engineer, PDPD & ESO |
| **13.** | **Issues of use water supply for the** | Supply of Water for the site | 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. | 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 |
| | **construction activities** | | 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.<br><br>3. Extraction of water from ground water or surface water bodies without the permission from Engineer and the relevant authority<br><br>4. Permission for the extraction of water should be obtained prior to the commencement of the project, from the relevant authority. | | | |
| 15. | **Solid Waste Disposal** | ▪ 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 |
| 16. | **Harm due to Solid Waste to the public and** | ▪ Demolisher items<br>▪ Asbestos debris | **2.** Any hazardous type of waste shall be dealt with special care and instructions from the LA.( Eg: Asbestos) | 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 |
| | **problems due to Disposal of waste** | generate from demolished items | **3.** The contractor shall document all types of waste generated and removed from the site and the disposal locations.<br><br>4. The contractor shall remove waste from site to a LA approved site/s. For Asbestos waste removal, follow the CEA guidelines attached.<br><br>5. Construction site should be clear not to make any injury due to demolished or broken building parts . | | | PDPD & ESO |
| 17. | **Public/occupational safety hazard** | ▪ Site clearing, storage of equipment, material etc.<br><br>▪ Increased traffic of heavy vehicles for material transportation | **Training**<br>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.<br>**2. Personal Protective Equipment**<br>All workers will be provided with necessary PPEs (basic should include safety helmet, protective footwear and high visibility jackets).<br>3. Gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered | 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 |
| | | ▪ Noise and vibration of construction machinery | necessary should be maintained in stock at the site office.<br>4. A safety inspection checklist should be prepared taking into consideration what the workers are supposed to be wearing and monitored.<br>5. **Site Delineation and Warning Signs**<br>• Construction site should be delineated using devices such as<br>• Cones, lights, tubular markers, orange and white strips and barricades to inform oncoming vehicular traffic and pedestrians in the area about work zones.<br>6. 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<br>7. Dangerous warning signs should be raised to inform of particular dangers and to keep the public away from such hazards. | | | |

| | 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. | **Occupational safety and health risks** | Workers safety measures | 1. 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.<br>2. Overloading of vehicles with materials should be controlled<br>3. Construction wastes should be removed as much as possible within 24 hours from the site to ensure public safety.<br>**4. Equipment safety**<br>Tools, equipment and machinery used by workers 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.<br>Inspections should look for evidence of wear and tear, frays, missing parts and mechanical or electrical problems. | Engineering Cost | Contractor | DAD Regional Engineer, PDPD & ESO |

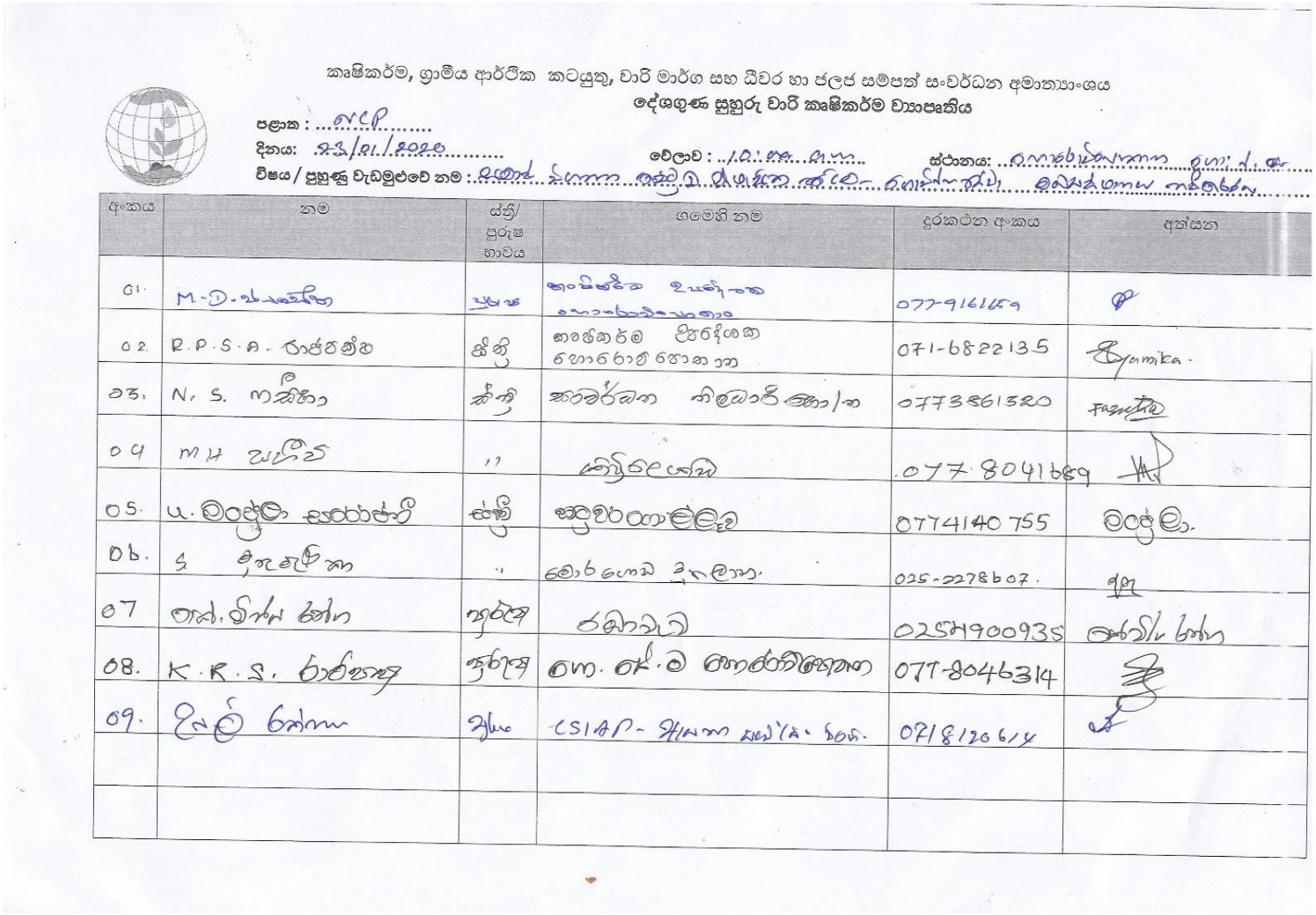
| | Potential Environmental Impacts and Risk Level | Key project activities causing the impacts | Mitigation Measures proposed and action to be Implemented by the Contractor | Mitigation Cost | Responsibility | |
|---|---|---|---|---|---|---|
| | | | | | Implementation | Compliance Monitoring |
| | | | **5.** All equipment and vehicles to be stored /parked away from public visiting areas, barricaded and warning signs posted. | | | |
| 19. | **Public/occupational safety hazard** | Prevention of Accidents and workers safety<br><br>Public safety measures | **Emergency Procedures**<br><br>6. An emergency aid service must be in place in the work site.<br><br>7. 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 notify and where assemble in an emergency. This information must be conveyed to employees by the site manager on the first occasion a worker visits the site.<br><br>**Information management**<br><br>8. Develop and establish contractor's own procedure for receiving, documenting and addressing complaints from the affected public and nearby communities.<br><br>9. Provide advance notice to local communities by way of information boards or leaflet, | 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 |
| | | | during village committees about the schedule of construction activities, interruption to services and access etc. | | | |
| 20. | **Construction camps conditions** | Camp site management | **Construction camps**<br>01. Construction camps should have adequate sanitation facilities for construction workers to control transmission of infectious diseases.<br><br>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 elsewhere | Engineering Cost | Contractor | DAD Regional Engineer, PDPD & ESO |
| 21. | **Construction camps conditions** | Camp site management | 1. Accommodation camps locate away from communities on land acquired from willing sellers.<br>2. According to labour laws, adequate sanitation, waste disposal and health facilities provide to labour camps.<br>3. Work campsites clear after use and reinstate vegetation.<br>4. Awareness programs conduct for worker on HIV/AIDS. | Engineering Cost | Contractor | DAD Regional Engineer, PDPD & ESO |

## Annexure I: Activity plan / Time frame Horowpathana ASC modernization & Digitalization (Civil work)

| SN | Activities | 2019 | | | | | | 2020 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | July - Sep | | | Oct - Dec | | | Jan - Mar | | | Apil - June | | | July - Sep | | | Oct - Dec | | |
| 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 | | | | | | | | | | | | | | | | | | |

## Annex I: Signature sheet of public consultation



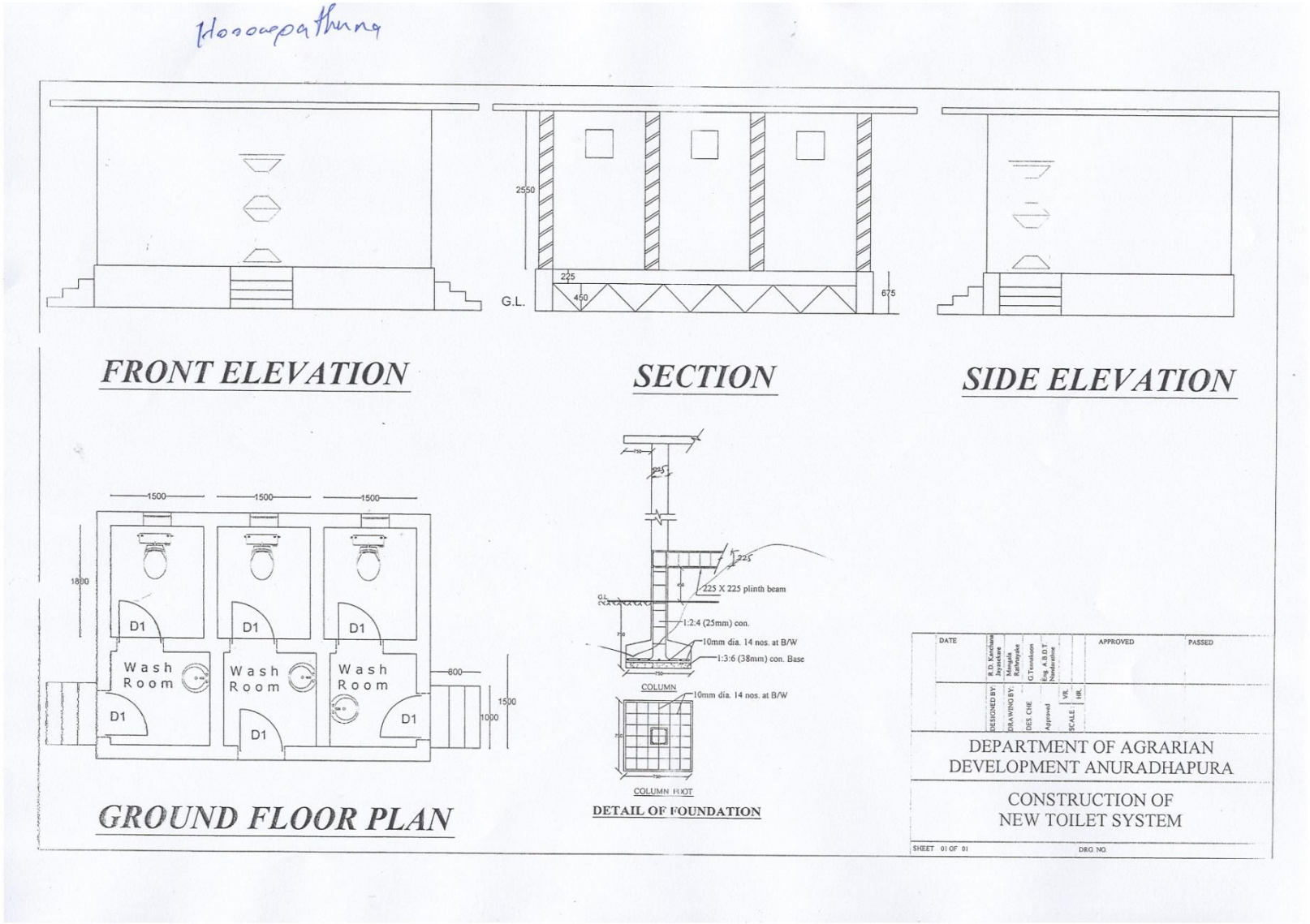
කෘෂිකර්ම, ග්‍රාමීය ආර්ථික කටයුතු, වාරි මාර්ග සහ ධීවර හා ජලජ සම්පත් සංවර්ධන අමාත්‍යාංශය
දේශගුණ සුසුරු වාරි කෘෂිකර්ම ව්‍යාපෘතිය

පළාත : ....WCP.....
දිනය: 23/01/2024..... වේලාව : ..10:00 a.m..... ස්ථානය: .....
විෂය / ප්‍රහුණු වැඩමුළුවේ නම : .....

| අංකය | නම | ස්ත්‍රී/ පුරුෂ භාවය | ගමෙහි නම | දුරකථන අංකය | අත්සන |
|---|---|---|---|---|---|
| 01. | M.D. [illegible] | පුරුෂ | [illegible] | 077-9161454 | |
| 02. | R.P.S.A. රාජරත්න | ස්ත්‍රී | කෘෂිකර්ම උපදේශක [illegible] | 071-6822135 | |
| 03. | N. S. [illegible] | ස්ත්‍රී | කරම්බන [illegible] | 0773561320 | |
| 04 | M.H [illegible] | ,, | [illegible] | 077-8041669 | |
| 05. | ඩ. චන්ද්‍රලා සහරාජ්ගී | ස්ත්‍රී | [illegible] | 0774140755 | චන්ද්‍රලා. |
| 06. | S [illegible] | ,, | [illegible] | 025-2278607. | |
| 07 | [illegible] | පුරුෂ | [illegible] | 0254900935 | [illegible] |
| 08. | K.K.S. රාජිනාතු | පුරුෂ | [illegible] | 077-8046314 | |
| 09. | [illegible] | පුරුෂ | CSIAP- [illegible] | 071 8120614 | |
| | | | | | |
| | | | | | |

# Annex II  Horowpathana ASC layout plan

## Annex III : ASC Ground flow plan with front elevation and side elevation



## Annex IV: Google map indicating the area

**Annex V: Photos of the existing building of the ASC**

Office space with parking facilities

s a conference hall

Extended land available for ASC and common places are not in close proximity .

ASC officers' quarters located within g the land of the ASC