Integrated Rurban Development and Climate Resilience Project (IRDCRP).

Ministry of Agriculture, Livestock, Lands and Irrigation



Environmental Screening Report & Environmental Management Plan

For

Rehabilitation of Kimbulpatiyawa Wewa

IRDCRP Component No: 2.1

November, 2025

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1. General Information

The Kimbulpatiywa Wewa is located in the Trincomalee district of the Eastern Province. The Divisional Secretariat Division is Gomarankadawala, and the GN Division is No. 232, Galkadawala. The tank functions under the purview of the Gomarankadawala Agrerian Division. The tank belongs to the Kimbulpatiyawa cascade system in the Yan Oya river basin.

The tank adjoins the Pamburugashinna Reserved Forest (Figure 1). Although the area is generally not prone to a high level of Human-Elephant Conflict (HEC), elephants occasionally appear near the tank and in adjacent paddy fields, as solitary animals rather than in herds.



Figure 1: Upper periphery of the tank bordering the Pamburugashinna Reserved Forest



Figure 2: Current appearance of the Kimbulpatiyawa tank bund



Figure 3: The end of the tank bund at the spill area



Figure 4: The sluice gate is currently operating at a functional level.

The figures 2, 3 and 4 illustrate the current status of the headworks, which are determined to be structurally sound and functional. The Paddy lands are located about 700 meters downstream of the tank and a few houses are located about 75-100 meters at the downstream.

Figure 5 depicts aquatic invasive infestation of the tank water with many species. Water hyacinth (*Eichhornia crassipes), Salvinia molesta*, *Pistia sp. And Eichhornia crassipe*, are invade the margins of the water column. Other than the inavesve aquatics, flowering plants such as *Nymphaea* species also present in the tank.



Figure 5: Almost the entire margins of the water column of the tank has infected with different invasive species.

Elephants are frequent visitors to the area. However, according to local farmers, no elevated level of HEC currently prevails in the vicinity. Other faunal species observed are those commonly associated with a tank ecosystem typical of the dry zone. No trees shall be removed or cut as part of the proposed rehabilitation works. No detailed assessments were done on fauna and flora.

2. Brief Description about the Proposed Activities

The rehabilitation of the headworks is not proposed under this project. Only downstream activities, such as channel improvements and structures for water diversion and regulation, are proposed and included in the Bill of Quantities (BoQ) submitted by the DAD.

Bath Steps Stn. (0+425m) Tank Bund		
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	2.58
Furnishing, making, fixing, and removing of |form work using class-II timber lift 0-1.5m	m^3	61.66
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work.	m^3	21.67
Furnishing cutting, bending, and laying of Tor steel reinforcement. Lift 0 - 1.5m(Included 25% for wastage)	Kg	230.80
Tidying up the site after construction	Item	Allow
Improvements of the Main channel LB		
Channel LB MC		
150mm thick Stripping top soil and spoil to waste (A-B channel)	m^2	160.00
Earth excavation in the channel & spoils to waste or fill material. lift 0-1.5m	m^3	13.00
Earth excavation from borrow & filling in road including compaction haul 1 km. Lift 0-1.5m	m^3	384.00
Cutting and planting of turf on the slope of the bund, including watering, transport 1 km.		515.00
Tidying up site after construction	Item	Allow
03 Nos. of One way farm torn out (LB) Stn. (0+240, 0+295 & 0+420)		
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	0.07
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work	$m3$	0.10
Furnishing, making, fixing, and removing of form work using class-II timber lift 0-1.5m.	m^2	1.30
Furnish, of 150mm diameter meter Hume pipes, including excavation and backfilling	L.m	1.83
2" thick special class timber planks for farm gates, including applying hot tar.	m^2	0.09
Tidying up the site after construction	Item	Allow
02 Nos. of One way farm turn out (RB) Stn. (0+240 & & 0+420)		
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	0.07
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker. Vibrate, including curing, excluding form work.	m^3	0.10
Furnishing, making, fixing, and removing of form work using class-II timber lift 0-1.5m.	m^2	1.30
Furnish, of 150mm diameter Hume pipes, including excavation and backfilling	L.m	1.83
2" thick special class timber planks for farm gates including applying hot tar.	m^2	0.09
Tidying up the site after construction	Item	Allow
01 Nos of Drop Structure (0.3m) at Stn 0+358		
Earth excavation in the foundation and part refill Lift 0-1.5m	m^3	1.00
1:2:4 (20mm) cement concrete work using a concrete mixer and compacting with a porker vibrator, including curing, excluding form work lift 0 - 1.5m	m^3	1.34
Furnishing, making, fixing, and removing of formwork using class II timber. Lift 0-1.5m(Added 25% for struts & battens)	m^2	4.15

Common E/Excavation in bed for Rubble packing	m^3	0.80
225-300 mm Dry Rubble Packing	m^3	0.80
Tidying up the site After construction	Item	

FTO (T 2) with End Structure, at Stn (0+514)

Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	0.43
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work.	m^3	0.66
Furnishing, making, fixing, and removing of form work using class-Il timber lift 0-1.5m.	m^2	5.40
Furnish, of 100mm diametermeter Hume pipes, including 3.5.4 excavation and backfilling	L.m	3.66
2" thick special class timber planks for farm gates, including applying hot tar.	m^2	0.09
Tidying up the site After construction	Item	Allow

Concrete Lining canal LB MC Stn (0+000) to 10+110m) & (0+124 1) to (0+150 (G00mm)

Demolishing the existing canal structure	Hrs	4.00
150mm thick Stripping top soil and spoil to waste (LBMC channel)	m^3	76.30
Earth excavation in channel & spoilt to waste or fill material, lift 0-1.5m	m^3	10.82
Earth excavation in the foundation and part refill Lift 0-1.5m	m^3	29.60
Earth excavation from borrow & filling in road, including compaction haul 1 km. Lift 0-1.5m 1:3:6(40mm) Screed concrete excluding form work	m^3	179.58
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work.	m^3	36.65
Furnishing, making, fixing and removing of form work using class-Il timber lift 0-1.5m.	m^2	366.93
Furnishing cutting, bending, and laying of Tor steel reinforcement. Lift 0-1.5m(Included 25% for wastage)	kg	1405.00
2" thick 0.55-wide special class timber 3.6.10 planks for farm outlets in the Lining section including applying hot tar	m^2	0.13
Tidying up the site After construction	Item	Allow

01 Nos of one-way farm turn out (LB) Stn (0+055) in the lining section

Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	0.07
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker	m^3	0.10
Furnishing, making, fixing, and removing of form work using class-Il timber lift 0-1.5m.	m^2	1.30
Furnish, of 150mm diametermeter Hume pipes, including excavation and backfilling	L.m	1.83
2" thick special class timber planks for farm gates including app/zing hot tar.	m^2	0.09
Tidying up the site after construction	Item	Allow

01 Nos of Divider Structures. (Stn 0+145.1)

Earth excavation in the foundation and part refill Lift 0-1.5m	m^3	1.30
1:2:4 (20mm) cement concrete work using a concrete mixer and compacting with a porker vibrator, including curing, excluding form work lift 0-1.5m	m^3	2.32
Furnishing, making, fixing, and removing of formwork using class II timber. Lift 0-1.5m(Added 25% for struts & battens)	m^2	16.00
Common E/Excavation in bed for Rubble packing	m^3	2.20
225-300 mm Dry Rubble Packing	m^3	2.20
Common Earth Excavation from Borrow, Placing, and Compacting in backfilling	m^3	2.40

Tidying up the site after construction	Item	Allow

Improvements of the Branch channel LBBC		
Channel LBBC Stn (0+000 to 0+325m),		
150mm thick Stripping top soil and spoil to waste (A-B channel)	m^2	106.70
Earth excavation in channel & spoilt to waste (or fill material, lift 0-1.5m	m^3	27.6
Earth excavation from borrow & filling in road, including compaction haul 1 km. Lift 0-1.5m	m^3	238.00
Cutting and planting of turf on the slope of the bund, including watering, transport 1 km	m^2	382.85
Tidying up the site after construction	Item	Allow

02 Nos of One way farm turn out (LB) Stn (0+080) (0+215)	**Unit**	**Qty**
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual).	m^3	0.07
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work	m^3	0.10
Furnishing, making, fixing, and removing of form work using class-Il timber lift 0-1.5m.	m^2	1.30
Furnish, of 150mm diameter Hume pipes, including excavation and backfilling	L.m	1.83
2" thick special class timber planks for farm gates including applying hot tar.	m^2	0.09
Tidying up the site after construction	Item	Allow

01 Nos of One way farm turn out (RB) Stn (0+215)	**Unit**	**Qty**
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	0.07
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work.	m^3	0.10
Furnishing, making, fixing, and removing of form work using class-Il timber lift 0-1.5m.	m^2	1.30
Furnish, of 150mm diameter Hume pipes, including excavation and backfilling	L.m	1.83
2" thick special class timber planks for farm gates including applying hot tar.	m^2	0.09
Tidying up the site after construction	Item	Allow

1 Nos of FTO (12) with End Structure Stn (0+325)		
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	0.43
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with porker vibrate, including curing, excluding form work	m^3	0.66
Furnishing, making, fixing, and removing of |form work using class-II timber lift 0-1.5m.	m^2	5.40
Furnish, of 150mm diameter Hume pipes, including excavation and backfilling	L.m	3.66
2" thick special class timber planks for farm gates including applying hot tar	m^2	0.09
Tidying up the site after construction	Item	Allow

01 Nos of Drop structure (0.3m) at Stn (03203	**Unit**	**Qty**
Earth excavation in the foundation and part refill Lift 0-1.5m	m^3	1.00
1:2:4 (20mm) cement concrete work using a concrete mixer and compacting with a porker vibrator, including curing, excluding form [work lift	m^3	1.34
Furnishing, making, fixing, and removing of formwork using class II timber. Lift 0-1.5m (Added 25% for struts & battens)	m^3	4.15
Common E/Excavation in bed for Rubble packing	m^3	0.80
225-300 mm Dry Rubble Packing	m^3	0.80
Tidying up site after construction	Item	Allow

Concrete Lining canal (0+000 m to 0+025m)		
1:3:6(40mm) cement concrete, excluding form work	m^3	0.75
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with	m^3	6.75

porker vibrate, including curing, excluding form work		
Furnishing, making, fixing, and removing of form work using class-II timber lift 0-1.5m	m^2	67.50
Furnishing cutting, bending, and laying of Tor steel reinforcement. Lift 0- 1.5m (included 25% for wastage)	kg	486.25
Tidying up the site after construction	Item	Allow

Improvement of Kimbulpatiyawa wewa Paddy Field Agro Road		
Road Stn (0+000 -0+260)		
Light Jungle clearing	Ha	0.26
150mm thick Stripping top soil and spoil to waste		
Earth excavation from borrow & filling in road 5.1.3, including compaction haul 1 km. Lift 0-1.5m	m^3	624.00
Cutting and planting of turf on the slope of the bund, including watering, transport 1 km.	m^2	936.00
Furnishing, placing, watering, spreading & compaction of gravel by roller to compacted 250mm thick gravel to the top of the bund(10km)	m^3	260.00
Tidying up the site after construction	Item	Allow

Box Culvert (0.6m x4 0m) Long Chinage (0+043) & (0+200)		
Earth excavation in the foundation & part refill. Cut & Lift up to 0-1.5m (by manual)	m^3	2.14
1:2:4(20mm) cement concrete work using a concrete mixer and compacting with pocker vibrate, including curing, excluding form work.	m^3	2.32
Furnishing, making, fixing, and removing of form work using class-II timber lift 0-1.5m.	m^2	14.47

Making, Casting, and Placing Precast RCC slabs (08 Nos)		
1:2:4 (20mm) RCC Cong without FW on 5.2.4.a slab	m^3	0.80
Form work - Edges of slabs (in precasting)	m^2	2.88
Reinforcement	kg	51.12
Back filling around structure	m^3	34.40
Tidying up site After construction	Item	Allow

3. Environmental Screening

Table 1: Environmental Screening for Tank Rehabilitation Works – Kimbulpatiyawa Wewa -IRDCRP

No	Screening Questions	Yes/No	Scale of Impact	Remarks
1	Will the proposed project involve the construction of new physical infrastructure or the rehabilitation of existing infrastructure? Or; Will the project involve any of the following? (Select all that apply) **1.1.** Construction of new physical infrastructure (e.g., buildings, roads, anicuts, canals, sluice gates, pipelines *etc.*). **1.2.** Rehabilitation, expansion, or upgrade of existing physical infrastructure. **1.3.** Will the project activities involve changes to the original design levels of the headworks (Raise the height of tank bund? And/or raise the height or length of existing spill?) that could lead to the inundation of new areas within the catchment? **1.4.** Dredging of the tank bed and the subsequent disposal of dredged materials? **1.5.** If yes, will the dredged material be disposed of on-site or off-site?? **1.6.** Solid waste management:	yes	Substantial Risk	1.1. New works: All the downstream structures proposed for water diversion are new structures as elaborated in the section 2 above. 1.2. Rehabilitation of existing physical infrastructure ▪ Renovation of bathing steps 1.3. NO. 1.4. No interventions on the tank bed is proposed. **1.5.** Not applicable **1.6.** Residuals from removed surface soil layers, may disposed in t he downstream as appropriate. Soil waste from the workforce, and construction etc., may need to be disposed of.
2	Will any of the planned improvements necessitate an artificial lowering of the reservoir's water level?	No		The construction work is scheduled to be carried out during the inter-seasonal period, specifically avoiding the *Maha* and *Yala* cultivation seasons. And especially headwork implement are not proposed under this

No	Screening Questions	Yes/No	Scale of Impact	Remarks
	* If the water level will be artificially lowered, please specify the anticipated duration and magnitude of the draw down.			contract.
3	If the water level will be artificially drawn down, please assess the potential impacts on: 16.1. Surface Water: Will the draw down alter water flows in nearby streams, rivers, or canals, particularly during the dry season? 16.2. Groundwater: Will the draw down affect the groundwater table or flow in local wells, especially during the dry season? 16.3. Ecology: Is there a risk that this activity will affect the ecology of the tank bed or other important wetlands around and canal systems that depend on it? 16.4. If a risk is identified, please describe the specific potential impacts on the ecosystem (e.g., impact on aquatic life, changes to vegetation, effects on migratory birds and other fauna).	No	--	Not applicable
4	Will the project cause localized flooding and/or poor drainage during construction?	No	--	Such impact is not expected.
5	Will construction and operation of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in water bodies, *etc*?)	No	--	Such impact is not expected.
6	Will construction of the project cause soil erosion within the site due to steep grade or soil content?	No	--	The proposed minor structures will be located on flat land downstream, requiring no considerable amount of earthwork (or soil excavation/fill).
7	Will the Project release pollutants or any hazardous, toxic or noxious substances to	7.1 Yes	Low Risk	The project will generate temporary, localized emissions from the combustion of fossil fuels by construction equipment, machinery, and

No	Screening Questions	Yes/No	Scale of Impact	Remarks
	7.1. Air? 7.2. Nearby surface or groundwater sources? 20.3. Soil?	 7.2. No 7.3 No		project-related vehicles. However, given the limited duration and scope of the construction activities, the overall impact is considered to be negligible and insignificant, and it will not result in a long-term release of hazardous, toxic, or noxious substances.
8	Will the proposed activities cause 8.1. Noise? 8.2. Vibration? 8.3. dust emission? 8.4. Release of light? 8.5. Heat energy? 8.6. Electromagnetic radiation?	8.1. Yes 8.2. Yes 8.3. Yes 8.4. No 8.5. No 8.6. No	Low Risk	8.1. & 8.2. No major impact is anticipated. 8.3. No considerable impact is anticipated. 8.4.; 8.5.; 8.6 No major impact is anticipated.
9	Does the proposed location fall within or border any gazetted protected areas (PAs) designated by the Forest Department (FD) or the Department of Wildlife Conservation (DWC), Department of Archaeology or any other?	Yes	Substantial Risk	The Pamburugashinna Reserved Forest is situated at the upper periphery (catchment margin) of the tank. No designated wildlife conservation areas or archaeologically protected areas are present within the defined project impact zone.
10	Is the proposed project location known to contain any species protected under the Fauna and Flora Protection Ordinance, or any other sensitive species of fauna or flora? If yes, please provide details on the species and why they are considered sensitive (e.g., critical for breeding, migration routes, *etc.).*"	Yes	Substantial Risk	Detailed ecological investigation was not done. Given that the tank is surrounding area is designated as a reserved forest, the presence of wildlife species, including protected ones, is probable. These animals likely utilize the upper periphery of the tank for water and the surrounding forest for roaming. However, the bund is protected using an electric fence. Both site observations and accounts from local farmers confirm that elephants roam in the area.
11	Will the proposed project activities cause negative effects on wildlife habitats, populations, corridors or movement?	yes	Substantial Risk	Based on the preliminary environmental screening, direct negative impacts on wildlife populations and habitats are not anticipated. The rehabilitation activities are strictly focused on downstream small infrastructure on the paddy fields; meaning no significant habitat fragmentation or destruction is foreseen. Indirect disturbances are likely possible during the movement of

No	Screening Questions	Yes/No	Scale of Impact	Remarks
				machinery and vehicles, during the daytime. Specifically, the movements can disturb ground-dwelling birds, reptiles, their nests, and associated habitats.
12	Will the proposed project activities cause negative effects on impact on fish migration and navigation?	No		Such an impact is not expected.
13	Will the proposed project activities will cause increased risk of wildlife poaching and forest fires?	yes	Substantial Risk	There are scrub type jungles margined to the tank, where small fauna may inhabit. Hence, there is a risk for poaching. Wild animals are highly likely to utilize the water body for drinking, primarily near the upper periphery of the tank. Hence, a considerable impact from the rehabilitation work is not expected. Nonetheless, there is an increased risk of poaching. 

No	Screening Questions	Yes/No	Scale of Impact	Remarks
				
14	Will tree felling be required for the proposed project activities? If yes, please provide an estimate of the number of trees to be felled and their species.	No	--	
15	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	----	Since the proposed activities will take place downstream majority on the paddy fields, such an impact is not expected.
16	Any invasive fauna or flora presents in the tank or surrounding area?	Yes	Substantial Risk	Yes, both terrestrial and aquatic invasive are present on and around the site as described in the section 1.

4. Impact Matrix Code

Table 2: Impact Matrix Code

Risk Level	Nature of Assessment/Impact Based Criteria	Mitigation Based Criteria
High Risk	The subproject will be classified as 'High risk' if: The sub project is expected to cause significant, severe, long-lasting, or permanent damages on the natural, physical or social environment, cannot be mitigated or; ○ Sub-projects that involve significant conversion or degradation of critical natural habitats such as sensitive ecosystems (e.g., wetlands, primary forests, protected areas). ○ The effects extend beyond the project site, potentially impacting entire regions or even neighbouring provinces. ○ The risks of the sub project are novel, complex, or the project involves specialized or hazardous processes that are difficult to manage. ○ Sub projects involving large-scale use of hazardous materials, significant air emissions, or large volumes of untreated industrial waste. ○ Sub projects that significantly alter major hydrological systems, such as large dams or barrages, which can affect river flow, aquatic biodiversity, and downstream communities. ○ Sub projects requiring the physical displacement or economic displacement (loss of land, assets, or access to resources) of a large number of people. ○ Sub projects impact on Indigenous Peoples/Vulnerable Groups ○ Sub projects that negatively affect the land, natural resources, culture, or livelihoods of Indigenous Peoples or other significantly vulnerable populations, often requiring Free, Prior, and Informed Consent (FPIC). ○ Major construction activities or infrastructure that poses severe risks to the health, safety, and security of surrounding communities (e.g., large-scale labor influx, major traffic hazards, or structural risks). ○ Destruction or significant damage to nationally or internationally recognized physical cultural resources or heritage sites.	Mitigation necessitates meticulous planning and the implementation of high-tech, costly design solutions. Even with such measures, residual effects are likely to persist.
Substantial Risk	The Subproject will be classified as a substantial risk intervention if it will directly lead to the following; ○ Activities that could lead to invasion or spread of weeds and feral animals or the use of toxic chemicals, intensive use of pesticides. ○ Activities that could dangerously lead to the exposure of sensitive/critical/vulnerable habitats. ○ Construction of large new infrastructure within or	Mitigation is feasible and effective, requiring only moderate design-based and/or operational planning. Residual

	directly adjacent (in buffer zones) to protected areas. ○ Illegal Activities as defined specifically under the Forest Ordinance and Fauna and Flora Protection Ordinance. ○ Subprojects, those involve collection of seeds/farming materials from the wild. ○ Sub-projects that may impose changes in land use that restrict access to resources in legally designated parks or protected areas or other common property resources on which local people may depend for livelihood purposes. In addition, as per the screening the subproject will have a majority of large-scale E&S impacts that will cause irreversible damage to the environment and communities.	effects are expected to be nil, minor, or temporary in nature.
Moderate Risk	The subproject will be classified as 'Moderate risk' if: ○ The subproject will have a majority of reversible, small-medium scale E&S impacts, specifically limited to the civil works phase of the project that can be managed by site specific mitigation measures. ○ Require minor land acquisition or restrictions on land use, as a result of which there will be no significant impact on incomes or livelihoods. ○ Subprojects requiring adoption of Abbreviated Resettlement Action Plan (ARAP), Environmental and Social Management Plans (ESMPs) and or E&S Assessment and require further screening in line with the detailed technical designs of the respective subproject.	Mitigation is straightforward and low-cost, and it is expected to fully address the impact. No residual impacts shall remain.
Low Risk	A subproject will be classified as 'Low risk,' if: ○ The Subproject has low-negligible E&S impacts that can be managed via migratory codes of practice that will be defined as part of the contractual agreement/memorandums of understanding with project implementing contractors or operators. ○ The Subproject does not require any land acquisition or lead to any impact on incomes or livelihoods. ○ The Sub-project does not require formal E&S assessment, nor preparation of ESMPs and do not have identifiable negative E&S impacts.	No mitigation required or minimal preventive measures sufficient within O & M.

5. Screening Decision and Recommendation

The proposed project site is located within a one-kilometer radius of a public road and human settlements, and is bordered by a Forest Reserve. Despite this socially and environmentally sensitive context, the planned downstream rehabilitation activities are not anticipated to result in irreversible or significant adverse environmental impacts during either the construction or operational phases.

All proposed interventions constitute small-scale downstream rehabilitation and renovation work. Tree removal is not necessary for the proposed interventions. Consequently, the project's potential environmental effects are categorically low risk, temporary, and primarily confined to the construction phase.

The limited potential impacts identified are associated primarily with the construction phase and are grouped as follows:

1. Pollution concerns - Such as accumulation of solid waste
2. Socio-Environmental Risks
    - Risk of unauthorized entry into the Forest Reserve by project personnel or external individuals.
    - Risk for poaching and other illicit activities.
3. Occupational Health and Safety (OHS):
    - Occupational health hazards, particularly the risk of wildlife attacks (e.g., snake bites, elephant attacks).
4. Spreading of invasive species
5. Damages to earthen, undiscovered artefacts.

☑ Environmental Management and Mitigation

The best practices listed in the Environmental Management Plan (EMP) shall be implemented as practically as possible.

The proposed project can, therefore, be carried out provided the mitigation measures stated in the EMP are fully implemented.

Name: Maheeni S. Singappuli
Title: Senior Environmental Specialist

Signature: 

Date: 28.11.2025

6. Environmental Management Plan – Kimbulpatiyawa Wewa, Gomarankadawala

Table 3: Environmental Management Plan[1] for the proposed activities under Kimbulpatiyawa Wewa.

No	Potential Environmental Impacts	Key project activities causing the impacts	Mitigation Measures proposed and action to be implemented by the Contractor	Mitigation Cost	Implementation	Compliance Monitoring
1	Pollution concerns - Such as accumulation of solid waste	Removal of surface vegetation at the downstream canal rehabilitation areas. Solid waste from construction staff.	1.1 All food waste and other attractants must not be stored on the site. Any food waste regularly removed from the site to prevent elephants from being drawn to the area. 1.2. Any debris shall not be burnt on the site. Cleared vegetation shall allow for villagers to take for using as fire wood, if there is a demand. 1.3. Reusable waste, such as cement bags, shall be either resold or reused. 1.4. Food waste shall not be discarded into the surrounding environment, as this may attract wildlife and must be removed from the site daily. 1.5. Workforce related solid waste shall be removed from the site on daily basis. 1.6. Cooking shall not be allowed on the site for the workforce since forest is nearby. However, if it is essential to make tea/coffee on site the following procedure shall be followed. ○ Select a location on bare soil, rock, or gravel, away from overhanging branches, dry grass, or fallen leaves. ○ Create a fire buffer zone by clearing all flammable material (leaves, dry grass, twigs, *etc*.) down to the soil in a circle at least 10 feet (3 meters) in diameter around the fire site. Lay a ground cloth or large piece of foil/rock to protect the ground, then spread a layer of mineral soil, sand, or gravel at least 3-5 inches thick on top. Build the fire on this	Engineering Cost	Contractor	DAD PMU

[1] A management plan for social aspects related concerns are done separately for the proposed activities under this contract.

			mound. The fire should be kept small to boil the require amount of water. ○ No kerosene, diesel or petrol is use to ignite the fire. Use only dead and downed wood that can be easily broken by hand. Never cut wood from standing trees (dead or alive). Gather wood from a wide area to minimize impact or bring from outside. Keep extra firewood and flammable items well away from the fire buffer zone. ○ Keep a bucket of water (or a large pot of water) and a shovel nearby at all times to quickly extinguish any embers or spreading flames. ○ Never leave the fire unattended, even for a moment. A responsible person must be responsible for supervising the fire until it is completely out. Finally, allow the fire to burn down to fine white ash and small embers. Pour lots of water onto the fire, ensuring all embers, coals, and wood fragments are thoroughly soaked. Do NOT use dirt to put out the fire, as it can smother the flames but insulate hot coals, allowing them to reignite later. Use a stick or shovel to stir the ashes and coals to ensure the water reaches the center and bottom layers. Drown and stir repeatedly until the mixture is cool to the touch. (The ashes and pit must be cool to the touch before leave the site in the evening. Once completely cool, scatter the ashes and any unburned wood widely over the prepared area to further minimize impact.			
2.	Socio-Environmental Risks ○ Risk of unauthorized entry into the adjacent Forest Reserve by project personnel or	Construction works	2.1. The contractor will take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora and fauna including fishing in the tank and hunting of any animal. 2.2. No one will have access to the forest reserve or adjacent forest patches even in the spill area without permission from the supervisor of the contractor. 2.3. Due consideration should be given to carefully clearing of vegetation avoiding destruction of habitats of fauna. Even nests of birds'. 2.4. Drivers of the material transport vehicles shall be instructed to adhere strictly to the following: ▪ Speed limits on public roads and adjacent to the tank area.	---	Contractor	PMU DAD

	external individuals.		▪ Safe driving practices along public roads and when operating near the tank area. ▪ Zero chances shall be kept for wildlife accidents.			
3.	Occupational Health and Safety (OHS): o Occupational health hazards and Safety (OHS)	During the site access Tank bed clearing During the work Material transport	Given that the work area is in a sensitive area, the following mitigatory measures must be implemented to ensure the safety of project workers. 3.1. Appoint a qualified full-time a designated, trained personnel responsible for daily OHS supervision, record-keeping, and enforcement. 3.2. Given the dry zone's history with specific health issues (e.g., Chronic Kidney Disease of Unknown Etiology - CKDu), ensure that drinking water sources are safe and certified as potable, separate from the tank water, and not from potentially contaminated local wells. 3.3. Clean food shall be provided for the workers at all the time. 3.4. Implement measures to prevent heat stroke and dehydration during the hot sunny days. • Mandatory provision of safe, clean drinking water (potable water) accessible at all times as mentioned above. • Schedule heavy work for cooler parts of the day (e.g., early morning). 3.5. Establishing labour quarters on the site is risky as frequent appearance of elephants. If the contractor hires a premise as labour quarters, the location shall be selected by avoiding elephant movement pathways and roaming areas. Provide adequate, clean, and separate sanitary facilities (toilets) and washing stations for workers. 3.6. Prior to the Commencement of Work, the Contractor shall formally consult with the regional offices of the Department of Wildlife Conservation (DWC) and the Forest Department (FD). This consultation will include the sharing of the project's scope, precise location, and timeline to identify and mitigate potential ecological impacts and safety of workers. 3.7. Elephant Sentinel: A dedicated elephant sentinel (or lookout person) with local knowledge of elephant behaviour and movement patterns must be hired. This person's sole responsibility is to monitor for	Engineering Cost	Contractor	DAD

			approaching elephants and alert the workers. The sentinel should be equipped with a communication device (e.g., a horn, whistle, or mobile phone) to provide a clear and immediate warning to all on-site personnel. A supply of firecrackers should be obtained from the DWC regional office under the recommendation of the Department of Agrarian Development (DAD). These are to be used only in emergency situations to deter elephants and should be deployed by trained personnel. 3.8. Under no circumstances shall any elephant or any other faunal species be harmed, injured, or killed as a result of project activities. All personnel must be briefed on this non-negotiable principle. 3.9. No any mode of fire, cigarettes shall be taken into the worksite without permission of the DAD officials. 3.10. No one shall remain on the site after working hours. 3.11. No worker shall allow walking beyond the tank or beyond the spill where the forest remains. 3.12. All workers shall be made aware of the possible risks of snake bites, insect attacks, and other wild animal encounters present in the adjacent forest environment. 3.13. Safety shoes and/or boots shall be provided for all workers and their use are mandatory on the worksite to protect against bites, sharp objects, and other ground hazards. 3.14. First Aid and Emergency Response: In the event of an incident (such as a snake bite, insect attack or any other wildlife attack), a designated sentinel person trained in first aid and emergency response should be kept ready on site. 3.15. Immediate Hospitalization Protocol: Clear protocols must be established for immediate hospitalization and transport, ensuring rapid access to the necessary medical facilities. 3.16. Ensure all heavy equipment (excavators, bulldozers, tipper trucks) and vehicles are inspected, well-maintained, and operated only by certified and licensed operators. Further to above, strict adherence to all applicable Sri Lankan OHS			

			regulations and laws shall be applied under this contract.			
4.	Spreading of invasive species	Use of tank water for construction Vehicle movements.	4.1. Transport vehicles should be inspected upon arrival at the site to ensure no contaminants were picked up *en route*. 4.2. Tank water shall not be used for any work under this contract, since it may be a reason for spreading aquatic invasive beyond the tank. 4.3. The site should be inspected by the farmers and DAD periodically to ensure that no new invasive species are established at the downstream.			
5.	Exposing and damaging of physical and cultural resources.	Site preparatory work. Excavation for canal rehabilitation and water management/distribution structures Construction.	Upon discovery of physical cultural materials of Archaeological importance during construction work, the following shall be carried out; 5.1. Immediately stop the performing activity and with the approval of the resident engineer delineate the discovered site area. 5.2. 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. 5.3. Through the responsible officer of DAD, notify the responsible authorities, the Department of Archaeology and local authorities within as soon as possible. 5.4. Submit a brief chance find report under supervision of DAD officer, 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. 5.5. Responsible authorities would be in charge of protecting and preserving the site before deciding on the proper procedures to be followed. 5.6. An evaluation of the finding will be performed by the Department of Archaeology who may decide to either remove the Physical Cultural Resources (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. 5.7. 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.		Contractor	DAD PMU