

Environmental Monitoring Report

Semi-Annual Report no. 7
For the period covered January-June 2020
Project Number: 47381-002
November 2020

Sri Lanka: Mahaweli Water Security Investment Program – Tranche 1

Upper Elahera Canal Project (UECP), Part 2 of 2

Prepared by Ministry of Mahaweli Development and Environment with the assistance of Program Management, Design and Supervision Consultant (Joint Venture Tractebel Engineering GmbH – GeoConsult ZT GmbH) for Democratic Socialist Republic of Sri Lanka and the Asian Development Bank.

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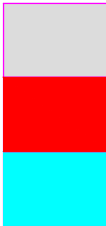
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Annex A

Diagram showing construction progress by June 2020

BACKFILLED, EXCAVATED & UNEXCAVATED LOCATIONS

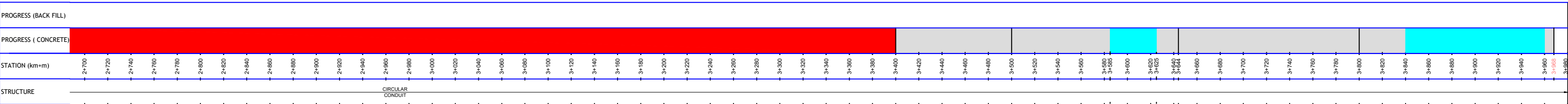
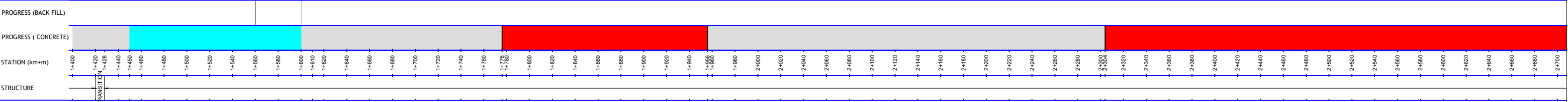
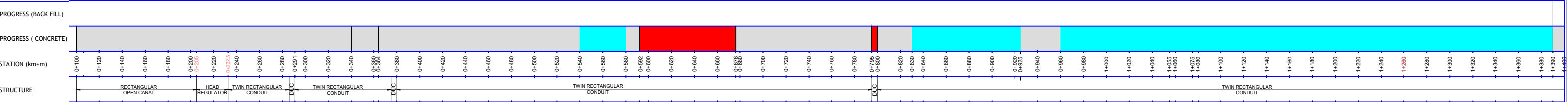
LEGEND



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Annex B

Baseline Ecological Survey Report prepared by IUCN in UECP-ICB-1 area



Recommendations on Priority Areas Identified for Commencement of Constructions in the Upper Elahara Canal Project

Package I (Moragakanda Reservoir to Kongetiya Tank) Human Elephant Conflict Management Plan for Upper Elahara Canal Project MMDE / MWSIP/ ADB/ UECP/ 3267-3268-SRI / Consult / HECM / NCB / 2016 /004



Report submitted by IUCN Sri Lanka Country Office to Mahaweli Water Security Investment Program of the Ministry of Mahaweli Development and Environment as part of the consultancy service deliverables for the 'Human Elephant Conflict Management Plan for Upper Elahera Cnal Project MMDE / MWSIP/ ADB/ UECP/ 3267-3268- SRI / Consult / HECM / NCB / 2016 /004'

Cover picture – Channel trace of UEC project package 1. Naalin Perera @IUCN Sri Lanka

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ABBREVIATIONS

BrR	Breeding Resident
CEA	Central Environmental Authority
NCS	National Conservation Status
CR	Critically Endangered
CR (PE)	Critically Endangered (possibly extinct)
DD	Data Deficient
EN	Endangered
END	Endemic Species
IAS	Invasive Alien Species
IUCN	International Union for Conservation of Nature
NT	Near Threatened
SpS	Species Status
VU	Vulnerable
WV	Winter Visitor

1. INTRODUCTION

1.1 Project Background

The Upper Elahera Canal (UEC) project of North Central Province Canal Stage 1 involves a trans-basin diversion of Mahaweli water to the North Central and Northern provinces.

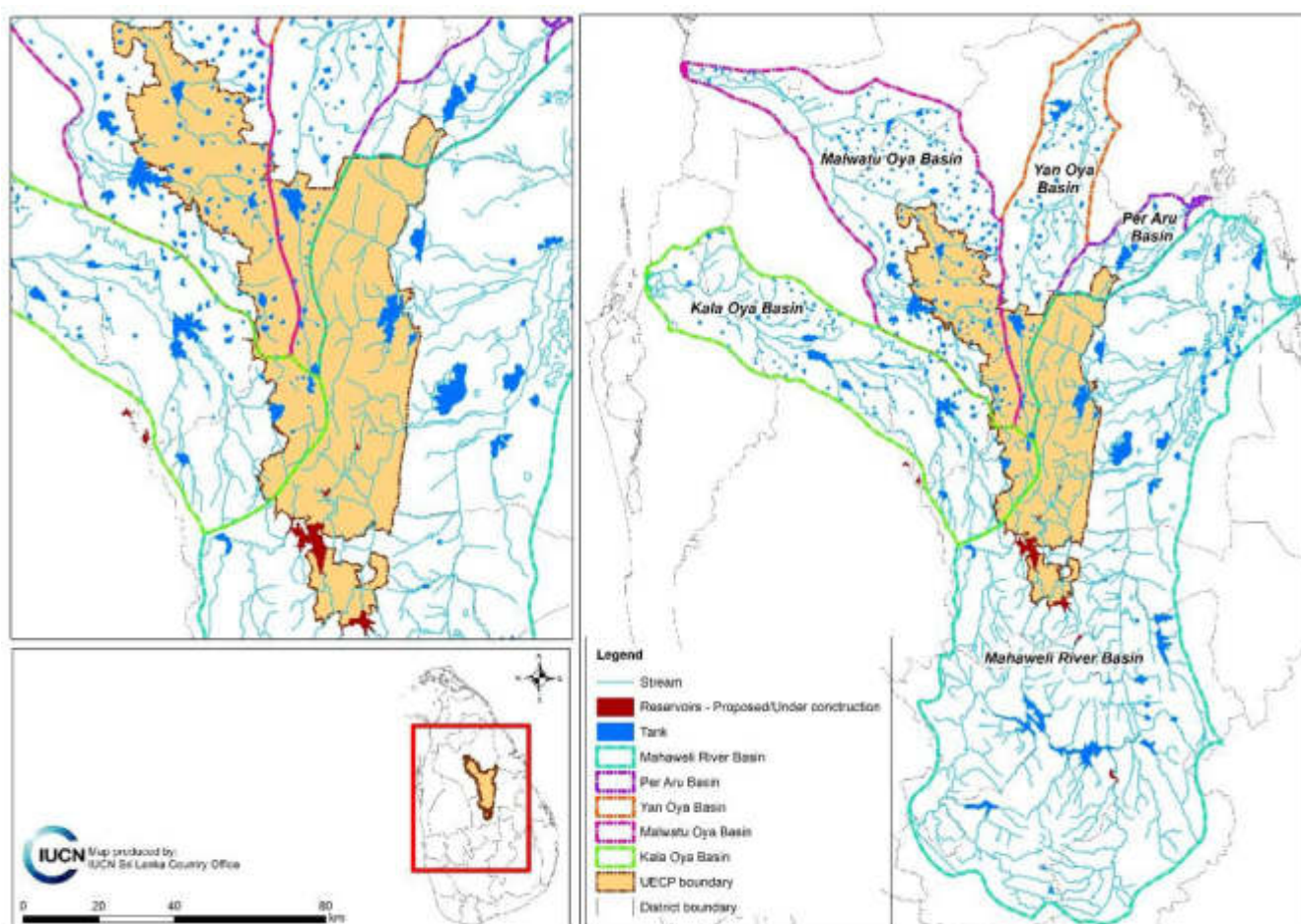


Figure 1. Location of the UEC Project

Water will be transferred from the Kalu Ganga reservoir to Moragahakanda, by the Kalu Ganga Moragahakanda Transfer Canal (KMTC). The Upper Elahera Canal (UEC) will then transfer water from Moragahakanda to Mahakanadarawa, via Mannankattiya Reservoir and Eru Wewa. It also will discharge water to Hurulu Wewa.

The main objective of the project is to provide increased water supplies to about 10,000 ha of land in water-deficit areas in the North Central Province of Sri Lanka. The water diverted will be used to augment three tanks in the upper Malwathu Oya basin and one in the Yan Oya basin. This augmentation will increase the cropping intensity of approximately 10,000 ha of land from the current level of 1.2 to 1.8 once the project is completed in 2021. The targeted cultivation areas are the command areas of:

- Mannakkattiya Reservoir (Malwathu Oya basin);
- Eru Wewa (Malwathu Oya basin);
- Mahakanadarawa Reservoir (Malwathu Oya basin); and
- Hurulu Wewa (Yan Oya basin).

1.2 Environmental impacts of the UEC project

Whilst the above activities will enhance the water availability for agriculture, thereby increasing agricultural production, as well as improving the socio-economic status of communities, the project will also have significant short and long-term environmental impacts, especially on the wildlife that inhabits the project affected area.

During the formulation of the EIA, several mitigation changes/measures were incorporated into project design to minimise impacts on the environment, such as (i) decreasing the length of the UEC within protected areas and where ever the terrain was steep (ii) changing the design from open canals to buried tunnels within protected areas and iii) changing from drilling and blasting to use of a tunnel boring machine for tunnel excavation, which has less negative environmental impacts than blasting.

However, both the KMTC and the UEC will pass through protected areas under the jurisdiction of both the Forest Department (FD) and the Department of Wildlife Conservation (DWC) and therefore, will have a substantial influence on the wildlife in the area. Sixty-eight percent of the UEC canal passes through protected areas. These are Elahera-Giritale Sanctuary, Minneriya Giritale Nature Reserve, Minneriya National Park (under the jurisdiction of the Department of Wildlife Conservation) and Hurulu Forest Reserve (under the jurisdiction of the Forest Department). Of these, the Elahera-Giritale Sanctuary will be most affected, as 40% of the canal trace passes through this sanctuary as an open canal or cut and cover sections. Here 120 ha of natural habitat will be lost (1% of the entire sanctuary). However, Minneriya National Park and Hurulu Forest Reserve are the least affected as in these areas the trace is an underground tunnel.

Based on the findings of the EIA study conducted for the NCP canal project and inception report submitted by IUCN in September 2016 three major impacts on wildlife have been identified.

These include:

Loss of habitat

The construction of the two major canals and associated structures will result in an estimated 160 ha of habitat loss in the Elahera-Giritale Sanctuary; as well as 15 ha in Minneriya National Park. In addition to this, impacts on Minneriya –Giritale Nature Reserve and Minneriya National Park due to construction activities are not significant. The canal will pass as an underground tunnel in parts of the Elehera –Giritale Sanctuary, Minneriya – Giritale Nature Reserve and along the border of Minneriya National Park.

Habitat fragmentation and loss of critical species

The project will result in the establishment of the KMTC and the UEC with estimated lengths of 9.2 km and 65.5 km respectively. Establishment of these canals will have two main impacts on the wildlife that is found in the habitats traversed by the open canal sections. Firstly, it will impair the free movement of terrestrial species, as the canal will function as a direct physical barrier. Secondly, animals attempting to cross the canal may fall into the canal, resulting in injury or death to such animals. The establishment of the canal other than the tunnel sections will also result in removal of vegetation present along the canal trace. These areas may be inhabited by critical species (rare, endemic or threatened species),

which are incapable of moving out of these areas without human assistance and therefore, will perish resulting in local or total extirpation of such species.

Escalation of Human-elephant Conflict

The area that will receive water under the project can be classified as a medium Human-elephant Conflict (HEC) area, especially the command areas of the Mahakanadarawa, Hurulu Wewa, Manakkatiya Wewa and Eru Wewa that will receive increased irrigation water under the project and the settlements and cultivations located near the Elahera-Giritale Sanctuary. The UEC project, which will enhance irrigation water availability in for the Hurulu wewa, Eru Wewa and Manakkatiya Wewa, will result in a change in the cropping intensity in the command areas of these tanks and therefore will lead to an escalation of the human-elephant conflict, which, in turn, will result in the reduction of the project benefits.

Therefore, one of the conditions imposed by the project approving agency — the Central Environmental Authority (CEA) — during project approval is to prepare and implement a Human-elephant Conflict Management Plan (HECMP), with a special emphasis on mitigation of human-elephant conflict in the area. The project proponent, in turn, contracted IUCN, Sri Lanka Country Office to prepare the said HECMP which will be completed in June 2017.

However, since the project proponent has indicated that work under the package I (a 3 km stretch from Moragahakanda reservoir or Kongetiya tank), needs to be undertaken before the completion of HECMP, it was agreed to undertake some of the work that should be done during stage 2 of the WMP such as translocation and transplanting of animal and plant species that are of conservation significance that inhabits the area affected by the project will be undertaken during Stage 1. Therefore, this study was undertaken to investigate the area affected by the package I (a 3.5 km stretch from Moragahakanda reservoir or Kongetiya tank), to determine whether there are any critical habitats or species in the areas impacted by the construction work under package 1 and if so to make changes in the construction corridor to avoid the impact and failing that to translocate/ transplant any critical species to a suitable location(s).

1.3 Objective

Objective of the present study is to identify whether the area affected by package I (a 3.5 km stretch from Moragahakanda reservoir or Kongetiya tank) will have a significant impact on critical habitats or species and if such an impact (s) was identified, to provide recommendations to avoid or minimize such impacts.

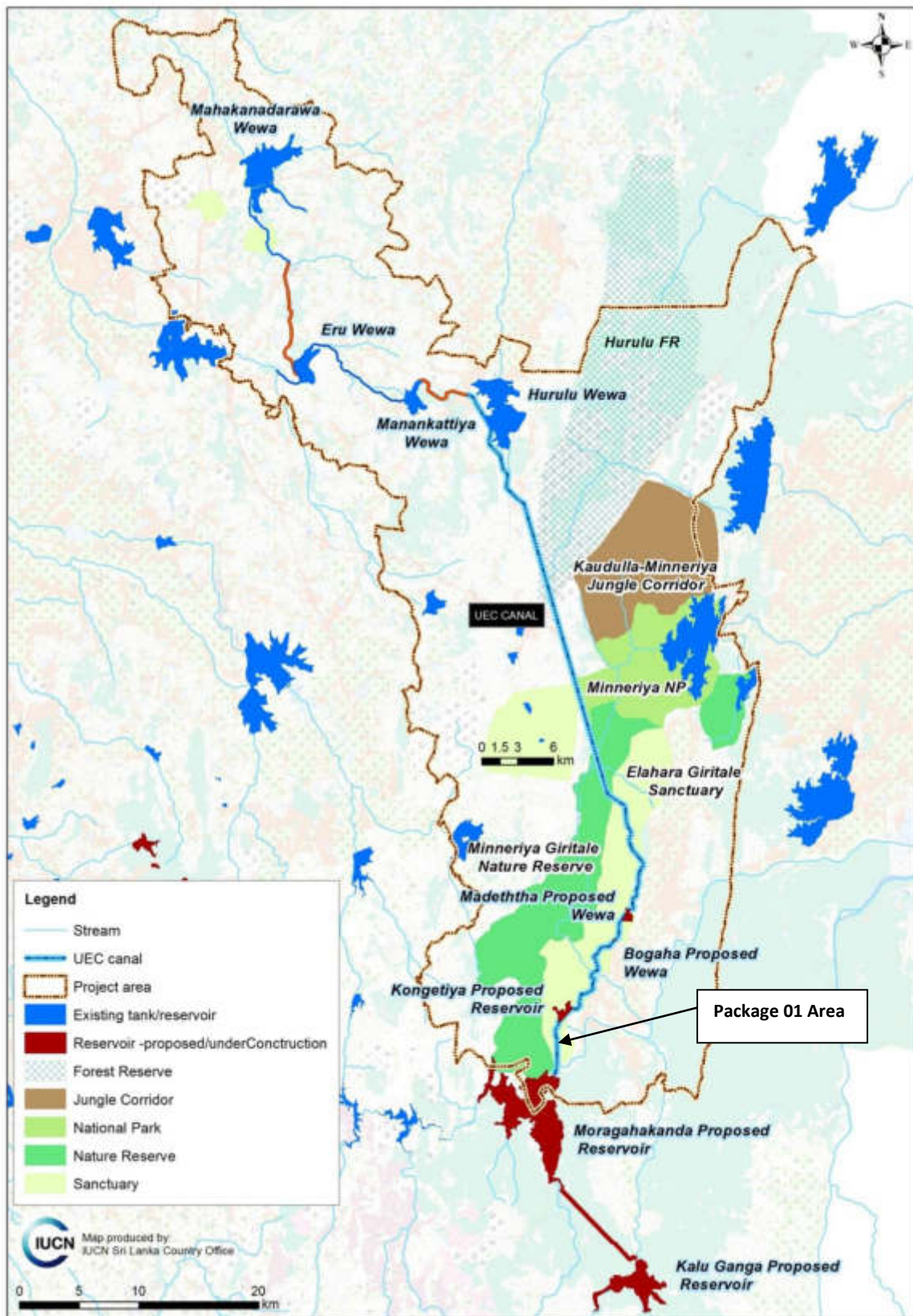


Figure 1. UEC trace with package 01 area

2. METHODOLOGY

The aim of this study has been to identify the anticipated impacts that would arise due to habitat clearance in order to establish the 3.5 m long segment of the Upper Elahara Canal starting from Moragahakanda reservoir to Kongetiya Tank under package 1.

The total length of the canal trace established under package 1 is 3.5 km long of which the first 0.75 km will pass through an already cleared or disturbed area for the construction work of Moragahakanda reservoir. The impacts arising due to this segment is already covered by the wildlife management plan of the Moragahakanda reservoir project and therefore not considered under this activity. The field investigations were carried out in the rest of the canal trace up to the Kongetiya tank.

Flora

Floral species found along the trace of the proposed UEC canal from Moragahakanda reservoir to Kongetiya Tank was studied. Species identification was based on the current field identification books listed in Table 1 as well as comparison with herbarium specimens.

Table 1: Key references used for the identification and classification of flora

Subject	Source
Invasive species	MoE 2015
Taxonomic identification	Ashton <i>et al.</i> 1997; Dassanayake and Fosberg (1980 - 1991); Dassanayake <i>et al.</i> (1994-1995); Dassanayake and Clayton (1996 -1999), Senaratne, 2001; Vlas and Vlas, 2008 & 2013.
Medicinal value	Sugathadasa <i>et al.</i> 2008.
Plant classification and conservation status	MoE, 2012.

Fauna

Faunal species were recorded by direct observation in most cases supplemented with indirect observations. Aquatic fauna as well as aquatic associates faunal species was studied based on visual observations made from the banks of the stream. Seasonal streams which cross the canal trace was filled with water due to heavy rains that prevailed during the sampling period, triggering upstream migration of fish that were observed in abundance in isolated pools. Such, fish was identified based on visual observations or when this was not possible they were collected using hand nets for the purpose of identification. Species identification was done by using the most recent field identification guides listed in Table 2.

Table 2: Key references used for the identification and classification of fauna

Subjects		Reference Source
Species Identification	Aquatic snails	Raheem and Naggs, 2006
	Dragonflies	Bedjanic <i>et al.</i> 2007; Bedjanic <i>et al.</i> 2014.
	Butterflies	D' Abrera, 1998; Jayasinghe <i>et al.</i> , 2013.
	Reptiles	Somaweera, 2006; Somaweera and Somaweera, 2009
	Birds	Harrison, 1999; Warakagoda, et al., 2012
	Mammals	Phillips, 1935; Kotagama and Goonatilake, 2013.
Nomenclature		MoE, 2012.
Conservation status		MoE, 2012.

Species Prioritization

The critical species such endemic and/or threatened species of plants and animals that show low mobility observed in the area that is identified for land clearing or seasonal streams whose flow regime is likely to be disturbed were evaluated to identify whether any of these species require translocation or transplantation to a safer site before commencing the construction work. The process of selection of priority species is a means by which species are shortlisted for translocation or transplanting. This is done based on a multi criteria analysis. For each criterion, a score is assigned based on several sub criteria. Each species was scored against the criteria, and those that receive a higher score are chosen for translocation/ transplantation.

Criteria used for flora

1. **Status of the species:** indigenous (1); common endemic or common new spp. (2); restricted endemic or restricted new spp. (3) point endemic or point new spp. (4).
2. **Distribution:** island wide (0), 4 bioclimatic zones (1); 3 bioclimatic zones (2); 2 or 1 bioclimatic zones (3); 1 Bioclimatic zone and restricted to project area (4).
3. **Use value:** Non-use (0); crop wild relative (3); other use (3); crop wild relative and other use (4)
4. **Conservation:** Nationally NT (1); Nationally DD/NE (2); Nationally VU (3); Nationally EN (4); Nationally CR (5); Nationally CR (PE) (6); Globally NT (1.5); Globally DD/NE (2.5); Globally VU (3.5); Globally EN (4.5); Globally CR (5.5); Globally CR (PE) (6.5).

Criteria used for fauna

1. **Status of species:** indigenous (1); common Endemic or common new spp. (2); restricted Endemic or restricted new spp. (3); point endemic or point new spp. (4).

2. **Distribution:** islandwide (0); 4 bioclimatic zones (1); 3 bioclimatic zones (2); 2 or 1 bioclimatic zones (3); 1 bioclimatic zone and restricted to project area (4).
3. **Impact of Project:** Positive impact (-2); no impact (0); negative impact (+2).
4. **Conservation:** Nationally NT (1); Nationally DD/NE (2); Nationally VU (3); Nationally EN (4); Nationally CR (5); Nationally CR (PE) (6); Globally NT (1.5); Globally DD/NE (2.5); Globally VU (3.5); Globally EN (4.5); Globally CR (5.5); Globally CR (PE) (6.5)

Species that receive a score of 10 or above based on the above analysis should be translocated or transplanted to suitable safer location. The methodology that should be followed for translocation or transplantation of species is given in Annex III.

3. Results

Based on the field surveys, EIA report and literature review following wildlife related issues have been identified.

A. loss of habitat

Approximately 12.5 hectares of habitats will be destroyed due to clearance of forest land within the Elehara-Giritale Sanctuary. Following habitat types have been identified along the canal trace that will be established under package 1.

1. Moist-mixed evergreen forests (Intermediate Forest)
2. Grasslands
3. Seasonal Streams
4. Rock outcrop forests
5. Scrublands

B. Habitat fragmentation and loss of critical species

The 2.5 kilometer stretch of canal (approximately 50 meter wide) that passes through the natural vegetation will be temporally fragmented. However, since this section is designed to be built as a cut and cover section the fragmentation effect will take place only during the construction phase of the project.

C. Impact on critical Species

A total of 147 faunal species and 131 plant species were recorded along the canal trace that will be impacted due to the construction work under the package 1 of the UEC project. The fauna recorded included 22 endemic species and 11 threatened species including one Critically Endangered species of fish *Devario cf. aequipinnatus*.

Table 3. Summary of faunal species observed in the areas affected by the package I of UEC

Taxonomic Group	Recorded from Sri Lanka										
	Total	Native	Endemic	Migrant	Exotic	CR (PE)	CR	EN	VU	NT	DD
Land snails	4	4	2	0	0	0	0	2	0	1	0
Dragonflies	7	7	0	0	0	0	0	0	0	2	0

Taxonomic Group	Recorded from Sri Lanka										
	Total	Native	Endemic	Migrant	Exotic	CR (PE)	CR	EN	VU	NT	DD
Butterflies	33	33	1	0	0	0	0	0	1	1	0
Crabs	1	1	1	0	0	0	0	1	0	0	0
Fishes	3	3	2	0	0	0	1	0	1	0	0
Amphibians	3	3	1	0	0	0	0	1	0	0	0
Reptiles	9	9	5	0	0	0	0	1	0	1	0
Birds	74	56	9	9	0	0	0	0	0	3	0
Mammals	13	12	1	0	0	0	0	1	2	2	0
Total	147	137	22	9	0	0	1	6	4	10	0

The 131 plant species recorded along the canal trace included 9 species that are endemic to Sri Lanka and 14 species listed as nationally threatened. Further, 9 species of exotic plants including 2 invasive alien plant species were also recorded. The detailed list of flora and fauna observed in the area that will be directly impacted due to construction work under package 1 are given in Annex 1 and 2 respectively.

Critical Species analysis:

Fauna: Altogether 12 species of fauna that are listed as endemic or threatened and will not be able to move out from the zone of disturbance without assistance was subjected for the critical species analysis (refer table 4). Four species of fauna were identified as species that require translocation from the area that will be subjected to vegetation clearance.

Table 4. Species prioritization for Endemic and/or Threatened Animal Species

Species Name	Common Name	End.	Con. Status	Dist.	Impact	Total
<i>Euplecta layardi</i>	Land Snail	2	3	3	2	10
<i>Cyclophorus involvulus</i>	Land Snail	0	3	3	2	8
<i>Theobaldius parma</i>	Land Snail	2	3	3	2	10
<i>Oziothelphusa minneriyaensis</i>	Freshwater Crab	2	4	2	2	10
<i>Devario cf. aequipinnatus</i>	Knuckles Danio	2	5	2	0	9

Species Name	Common Name	End.	Con. Status	Dist.	Impact	Total
<i>Garra ceylonensis</i>	Stone sucker	1	2	1	0	4
<i>Microhyla mihinthalai</i>	Red narrow mouth frog	1	0	1	0	2
<i>Calotes ceylonensis</i>	Painted lip lizard	1	1	2	2	6
<i>Otocryptis nigristigma</i>	Black spotted kangaroo lizard	1	0	2	2	5
<i>Eutropis greeri</i>	Bronze-green little skink	1	2	2	2	7
<i>Lankascincus fallax</i>	Common lanka skink	1	0	1	2	4
<i>Rhinophis philippinus</i>	Cuvier's earth snake	2	4	3	2	11

Flora: Altogether 21 species of plants that are listed as endemic or threatened was subjected for the critical species analysis (refer table 5). Only a single plant species was identified as species that require transplantation from the area that will be subjected to vegetation clearance.

Table 5. Species prioritization for Endemic and/or Threatened Plant Species

Family	Species	Common Name	Status	Dist	Use	Con. St.	Total
Achariaceae	<i>Hydnocarpus venenata</i>	Makulu	1	1	0	0	2
Amaryllidaceae	<i>Crinum latifolium</i>	Goda manel	0	1	0	3	3
Anacardiaceae	<i>Mangifera zeylanica</i>	Atamba	1	1	3	0	5
Annonaceae	<i>Uvaria sphenocarpa</i>		1	0	0	0	1
Begoniaceae	<i>Begonia cordifolia</i>	Gal-ambala	0	1	0	3	4
Celastraceae	<i>Cassine congylos</i>		1	2	0	3	6
Celastraceae	<i>Salacia oblonga</i>	Himbutu	0	1	3	4	8
Ebenaceae	<i>Diospyros ebenoides</i>	Kalu-habaraliya	1	1	3	4	8
Ebenaceae	<i>Diospyros ebenum</i>	kaluwara	0	1	3	4	8
Fabaceae	<i>Dendrolobium triangulare</i>		0	3	3	4	10
Fabaceae	<i>Derris parviflora</i>	Kala-wel	1	1	0	0	2

Family	Species	Common Name	Status	Dist	Use	Con. St.	Total
Loganiaceae	<i>Strychnos benthamii</i>		1	1	0	1	3
Loganiaceae	<i>Strychnos potatorum</i>	Ingini	0	0	3	3	6
Orchidaceae	<i>Vanda spathulata</i>		0	3	0	3	6
Phyllanthaceae	<i>Margaritaria indica</i>	Karawu	0	1	0	3	4
Phyllanthaceae	<i>Sauropus rigidus</i>	Ginihiriya	1	0	0	1	2
Rubiaceae	<i>Canthium puberulum</i>		1	1	0	1	3
Rubiaceae	<i>Psilanthus wightianus</i>		0	1	0	3	4
Rutaceae	<i>Chloroxylon swietania</i>	Burutha	0	1	3	3	7
Sapotaceae	<i>Manilkara hexandra</i>	Palu	0	1	3	3	7
Zingiberaceae	<i>Curcuma oligantha</i>		0	1	3	3	7

D. Escalation of Human-Elephant Conflict

Based on the previous observations of the EIA report of project and observations made during the present study, high elephant presence was observed in the canal trace. The free movement of these elephants is significantly affected due to the construction work of the Moragahakanda reservoir and settlements in the Elahera area. Construction of UEC will further aggravate this situation as it will create a bottle neck in the elephant corridor established between the Elehara-Girithale Sanctuary and forested areas of the Moragahakanda. Total width of this bottle necked stretch is approximately 500 meters and the Moragahakanda project office complex is located towards western end of this area. Naula-Elahera road is also located in this narrow forested area that elephants can use to cross over to the Elehara-Girithale Sanctuary. Therefore, the existing level of human-elephant conflict is likely to escalate due to proposed land clearance activities that will be carried out under the package 1 of UEC.



Map 2 - Map showing the bottle neck created for elephant movement and the possible impact of the UEC package 1 on the free movement of Elephants

RECOMMENDATIONS TO MITIGATE POTENTIAL IMPACT ON THE WILDLIFE INHABITING THE PROJECT AFFECTED AREA OF THE PACKAGE 1 OF UECP

A. Mitigation measures for the impact on habitats

- Habitat destruction should be minimized during the construction period and it is proposed to use existing road network as much as possible to access the canal trace.
- Restore habitats with native species is vital after the construction work. It is recommended to establish the same habitat types that existed on the canal trace before the vegetation clearance is undertaken for construction work during the restoration phase. For example grassland areas should not be converted to forest after the constructions, but restored as grasslands.
- If natural waterways or seasonal streams are affected due to construction work the streams should be restored to the preconstruction state after the construction work. Contractors should map the stream path using a GPS to facilitate identification of the original stream path after construction work is completed.
- It is recommended to implement Invasive Alien Plant species control/management programme during and after the construction period. A special emphasis should be given to control of IAS during the post project restoration period.

B. Mitigation measures for Habitat fragmentation and loss of critical species

Fragmentation of Habitat:

The fragmentation effect will be limited to the construction period as this section of the canal will be cut and cover type. Therefore, once the construction is completed the canal trace should be restored once the construction is completed.

Loss of critical species:

Based on the critical species analysis four species of animals and one plant species observed in the canal trace was identified as species that require translocation/transplantation. However, it is recommended that during vegetation clearing if an animal that is not listed below but would need assistance to move out of the disturbance area should be translocated out of the canal trace opportunistically. Since the canal trace is established inside a protected area translocation or transplantation can take place within the Elehara-Girithale Sanctuary. It is recommended that this translocation/ transplantation should be done on the right bank, beyond 1 km from the channel trace, an area which is less likely to be disturbed due to construction activity. It should be noted that translocation of animals should be done immediately prior to vegetation clearance is undertaken to prevent recolonization of the cleared areas.

Species Name	Common Name	Remarks
<i>Euplecta layardi</i>	Land Snail	This species is nocturnal and therefore night sampling may be required
<i>Theobaldius parma</i>	Land Snail	This species is nocturnal and therefore night sampling

Species Name	Common Name	Remarks
		may be required
<i>Oziothelphusa minneriyaensis</i>	Freshwater Crab	Freshwater crabs live in seasonal streams even during the dry season. Therefore, stream bed will have to be explored to collect them.
<i>Rhinophis philippinus</i>	<i>Cuvier's earth snake</i>	Generally found underneath rocks and leaf litter Therefore, litter clearance and turning over rocks and logs on the forest floor will be required to collect this species
<i>Dendrolobium triangulare</i>		This is a rare plant species and translocation will have to be done during the wet season. If it is not possible the plant must be maintained in a nursery until the onset of the wet season

C. Mitigation measures for the Human-Elephant Conflict

It is recommend to implement the recommendations given in the EIA report to minimize the human elephant conflict.

- Supply roads and any other disturbances should be limited to the left bank of the proposed canal as that area already contains supply roads. Construction of the proposed supply roads on the right bank of the first two kilometers of the proposed package 1 area should be avoided as this may block the free movements of elephants leading to the escalation of the conflict.
- It is recommended to manage the Giant Mimosa infestation in the newly constructed tank under the package 1 area to increase the food availability to elephants.
- Strengthening and continuous monitoring of the electric fence which is located along the package 1 area.
- Establish a temporary electric fence around the excavated areas to avoid accidental falling of elephants into open ditches.
- Limit noise generating activities to day time to reduce disturbance to free movement of elephants.

Further to above recommendations, design features which have been already incorporated to UEC project will help to mitigate Human elephant conflict. Water bodies and ponding areas which are created by level crossings (Kongetiya, Bogaswewa and Madaththawa) incorporated into the UEC will help to improve the access to water for wildlife. The design modification that enables large animals to climbs down into the canal from the side of the protected area but preventing them from climbing out from the side of the settlement. Creation of small reservoirs for wildlife is especially important during the dry season.

The UEC, at some points, acts as a barrier to wild animals and act as a barrier to further encroachment by people into protected areas where the canal runs along the borders.

ANNEX 1 – DETAILED LIST OF FAUNA RECORDED IN PACKAGE 1 AFFECTED AREA OF THE UEC PROJECT

Mollusks

Family	Scientific Name	SpS	CoS	0m to 900m	900m 2900m	2900m 3800m
Ariophantidae	<i>Euplecta layardi</i>	END	EN	0	1	0
Cyclophoridae	<i>Cyclophorus involvulus</i>	IND	EN	0	1	1
Cyclophoridae	<i>Theobaldius parma</i>	END	EN	0	1	1
Cyclophoridae	<i>Pterocyclus cumingi</i>	IND	NT	0	1	1

Dragonflies

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900m 2900m	2900m 3800m
Libellulidae	<i>Lathrecista asiatica</i>	Pruinosed Bloodtail	IND	NT	0	1	1
Libellulidae	<i>Orthetrum sabina</i>	Green Skimmer	IND	LC	0	0	1
Libellulidae	<i>Brachythemis contaminata</i>	Asian Groundling	IND	LC	0	1	1
Libellulidae	<i>Diplacodes trivialis</i>	Blue Percher	IND	LC	0	1	0
Libellulidae	<i>Neurothemis intermedia</i>	Paddyfield Paraspl	IND	NT	0	1	1
Libellulidae	<i>Pantala flavescens</i>	Wandering Glider	IND	LC	1	1	0
Libellulidae	<i>Tramea limbata</i>	Sociable Glider	IND	LC	1	1	0

Butterflies

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Papilionidae	<i>Graphium agamemnon</i>	Green jay	IND	LC	0	1	1
Papilionidae	<i>Pachliopta aristolochiae</i>	Common rose	IND	LC	0	1	1
Papilionidae	<i>Pachliopta hector</i>	Crimson rose	IND	LC	0	1	1
Papilionidae	<i>Papilio crino</i>	Banded peacock	IND	VU	0	1	1
Papilionidae	<i>Papilio demoleus</i>	Lime butterfly	IND	LC	0	1	1
Papilionidae	<i>Papilio polymnestor</i>	Blue mormon	IND	LC	0	0	1
Papilionidae	<i>Papilio polytes</i>	Common mormon	IND	LC	0	1	1
Pieridae	<i>Appias galane</i>	Lesser albatross	END	LC	0	1	0
Pieridae	<i>Catopsilia pomona</i>	Lemon emigrant	IND	LC	0	1	0
Pieridae	<i>Catopsilia pyranthe</i>	Mottled emigrant	IND	LC	0	1	0
Pieridae	<i>Cepora nerissa</i>	Common gull	IND	LC	0	1	1
Pieridae	<i>Delias eucharis</i>	Jezebel	IND	LC	1	1	1
Pieridae	<i>Eurema hecabe</i>	Common grass yellow	IND	LC	0	1	0
Pieridae	<i>Ixias pyrene</i>	Yellow orange tip	IND	LC	0	1	1
Nymphalidae	<i>Acraea violae</i>	Tawny costor	IND	LC	0	1	0
Nymphalidae	<i>Danaus chrysippus</i>	Plain tiger	IND	LC	0	1	1
Nymphalidae	<i>Danaus genutia</i>	Common tiger	IND	LC	0	0	1
Nymphalidae	<i>Euploea core</i>	Common crow	IND	LC	0	0	1
Nymphalidae	<i>Euploea klugii</i>	Brown king crow	IND	LC	0	0	1
Nymphalidae	<i>Euploea sylvester</i>	Double-banded crow	IND	NT	0	1	1
Nymphalidae	<i>Hypolimnias bolina</i>	Great eggfly	IND	LC	0	1	1
Nymphalidae	<i>Hypolimnias misippus</i>	Danaid Eggfly	IND	LC	0	0	1
Nymphalidae	<i>Junonia almana</i>	Peacock pansy	IND	LC	0	1	1
Nymphalidae	<i>Junonia atlites</i>	Grey pansy	IND	LC	0	1	1

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Nymphalidae	<i>Junonia iphita</i>	Chocolate soldier	IND	LC	0	1	1
Nymphalidae	<i>Junonia lemonias</i>	Lemon pansy	IND	LC	0	1	1
Nymphalidae	<i>Melanitis leda</i>	Common evening brown	IND	LC	0	0	1
Nymphalidae	<i>Neptis hylas</i>	Common sailor	IND	LC	0	0	1
Nymphalidae	<i>Parantica aglea</i>	Glassy tiger	IND	LC	0	1	1
Nymphalidae	<i>Tirumala limniace</i>	Blue tiger	IND	LC	0	1	0
Nymphalidae	<i>Ypthima ceylonica</i>	White four-ring	IND	LC	0	1	0
Lycaenidae	<i>Chilades lajus</i>	Lime Blue	IND	LC	0	1	0
Lycaenidae	<i>Leptotes plinius</i>	Zebra Blue	IND	LC	1		

Freshwater Crabs

Family	Scientific Name	SpS	CoS	0 to 900m	900 2900m	2900 3800m
Gecarcinucidae	<i>Oziothelphusa minneriyaensis</i>	END	EN	1	1	1

Freshwater Fishes

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Cyprinidae	<i>Devario cf. aequipinnatus</i>	Knuckles Danio	END	CR	0	1	0
Cyprinidae	<i>Garra ceylonensis</i>	Stone sucker	END	VU	0	1	0
Cyprinidae	<i>Rasbora microcephalus</i>	Thin line Rasbora	IND	LC	0	1	0

Amphibians

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Microhylidae	<i>Microhyla mihinthalai</i>	Red narrow mouth frog	END	LC	0	0	1
Dicroglossidae	<i>Euphlyctis cyanophlyctis</i>	Skipper frog	IND	LC	0	1	1
Dicroglossidae	<i>Zakerana shyadrensis</i>	Common paddy field frog	IND	LC	1	1	1

Reptiles

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Agamidae	<i>Calotes calotes</i>	Green garden lizard	IND	LC	0	1	0
Agamidae	<i>Calotes ceylonensis</i>	Painted lip lizard	END	NT	0	1	1
Agamidae	<i>Otocryptis nigristigma</i>	Black spotted kangaroo lizard	END	LC	0	0	1
Gekkonidae	<i>Hemidactylus frenatus</i>	Common house-gecko	IND	LC	0	0	1
Scincidae	<i>Eutropis greeri</i>	Lowland Bronzegreen little skink	END	NE	0	0	1
Scincidae	<i>Lankascincus fallax</i>	Common lankaskink	END	LC	0	1	0
Varanidae	<i>Varanus bengalensis</i>	Land monitor	IND	LC	0	1	0
Varanidae	<i>Varanus salvator</i>	Water monitor	IND	LC	0	1	0
Uropeltidae	<i>Rhinophis philippinus</i>	Cuvier's earth snake	END	EN	0	1	0

Birds

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Phasianidae	<i>Gallus lafayetii</i>	Sri Lanka Junglefowl	END	LC	0	1	1
Phasianidae	<i>Pavo cristatus</i>	Indian Peafowl	BrR	LC	0	1	1
Picidae	<i>Dinopium psarodes</i>	Sri Lanka Lesser Flameback	END	LC	0	1	0
Ramphastidae	<i>Megalaima zeylanica</i>	Brown-headed Barbet	BrR	LC	1	1	1
Ramphastidae	<i>Megalaima rubricapilla</i>	Crimson-fronted Barbet	Pro: END	LC	1	1	1
Ramphastidae	<i>Megalaima haemacephala</i>	Coppersmith Barbet	BrR	LC	1	1	1
Bucerotidae	<i>Ocyrceros gingalensis</i>	Sri Lanka Grey Hornbill	END	LC	0	1	0
Bucerotidae	<i>Anthraceroceros coronatus</i>	Malabar Pied Hornbill	BrR	LC	0	1	1
Alcedinidae	<i>Alcedo atthis</i>	Common Kingfisher	BrR	LC	0	1	0
Alcedinidae	<i>Pelargopsis capensis</i>	Stork-billed Kingfisher	BrR	LC	0	1	0
Meropidae	<i>Merops orientalis</i>	Green Bee-eater	BrR	LC	1	1	1
Meropidae	<i>Merops philippinus</i>	Blue-tailed Bee-eater	BrRWV	NE	1	1	1
Cuculidae	<i>Cuculus micropterus</i>	Indian Cuckoo	SU	NE	1	1	1
Cuculidae	<i>Cacomantis sonneratii</i>	Banded Bay Cuckoo	BrR	NT	0	0	1
Cuculidae	<i>Chrysococcyx maculatus</i>	Asian Emerald Cuckoo	WVa	NE	0	1	0
Cuculidae	<i>Eudynamis scolopacea</i>	Asian Koel	BrR	LC	0	1	0
Cuculidae	<i>Centropus sinensis</i>	Greater Coucal	BrR	LC	1	1	1
Psittacidae	<i>Psittacula krameri</i>	Rose-ringed Parakeet	BrR	LC	1	1	1
Apodidae	<i>Cypsiurus balasiensis</i>	Asian Palm Swift	BrR	LC	1	1	1
Hemiprocnidae	<i>Hemiprocne coronata</i>	Crested Treeswift	BrR	LC	1	1	1
Columbidae	<i>Streptopelia chinensis</i>	Spotted Dove	BrR	LC	1	1	1
Columbidae	<i>Chalcophaps indica</i>	Emerald Dove	BrR	LC	0	1	1
Columbidae	<i>Treron pompadora</i>	Pompadour Green-pigeon	Pro: END	LC	0	1	0
Columbidae	<i>Ducula aenea</i>	Green Imperial Pigeon	BrR	LC	0	0	1
Burhinidae	<i>Esacus recurvirostris</i>	Great Thick-knee	BrR	LC	0	1	0
Charadriidae	<i>Vanellus indicus</i>	Red-wattled Lapwing	BrR	LC	0	1	0
Accipitridae	<i>Haliastur indus</i>	Brahminy Kite	BrR	LC	0	1	0
Accipitridae	<i>Spilornis cheela</i>	Crested Serpent Eagle	BrR	LC	1	1	1
Accipitridae	<i>Ictinaetus malayensis</i>	Black Eagle	BrR	NT	0	1	0
Ardeidae	<i>Egretta garzetta</i>	Little Egret	BrR	LC	0	1	0
Ardeidae	<i>Ardea purpurea</i>	Purple Heron	BrR	LC	0	1	0
Ardeidae	<i>Casmerodius albus</i>	Great Egret	BrR	LC	0	1	0
Ardeidae	<i>Ardeola grayii</i>	Indian Pond Heron	BrR	LC	0	1	0
Chloropseidae	<i>Chloropsis jerdoni</i>	Blue-winged Leafbird	BrR	LC	1	1	1
Laniidae	<i>Lanius cristatus</i>	Brown Shrike	WV	NE	1	1	1
Artamidae	<i>Artamus fuscus</i>	Ashy Woodswallow	BrR	LC	0	1	0
Oriolidae	<i>Oriolus xanthornus</i>	Black-hooded Oriole	BrR	LC	1	1	1
Dicruidae	<i>Dicrurus caerulescens</i>	White-bellied Drongo	BrR	LC	0	1	1
Dicruidae	<i>Dicrurus paradiseus</i>	Great Racket-tailed Drongo	BrR	NT	0	0	1
Monarchidae	<i>Hypothymis azurea</i>	Black-naped Monarch	BrR	LC	0	1	1
Monarchidae	<i>Terpsiphone paradisi</i>	Asian Paradise-flycatcher	BrR/WV	LC	0	1	1
Corvidae	<i>Corvus leuallantii</i>	Large-billed Crow	BrR	LC	0	0	1
Campephagidae	<i>Coracina melanoptera</i>	Black-headed Cuckooshrike	BrR	LC	0	1	0
Campephagidae	<i>Pericrocotus flammeus</i>	Scarlet Minivet	BrR	LC	0	1	0
Campephagidae	<i>Tephrodornis pondicerianus</i>	Common Woodshrike	Pro: END	LC	0	1	1

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Aegithinidae	<i>Aegithina tiphia</i>	Common Iora	BrR	LC	1	1	1
Muscicapidae	<i>Muscicapa daurica</i>	Asian Brown Flycatcher	WV	NE	1	1	1
Muscicapidae	<i>Cyornis tickelliae</i>	Tickell's Blue Flycatcher	BrR	LC	0	1	1
Muscicapidae	<i>Copsychus saularis</i>	Oriental Magpie Robin	BrR	LC	0	1	1
Muscicapidae	<i>Copsychus malabaricus</i>	White-rumped Shama	BrR	LC	1	1	1
Muscicapidae	<i>Saxicoloides fulicata</i>	Indian Robin	BrR	LC	1	0	1
Sturnidae	<i>Acridotheres tristis</i>	Common Myna	BrB	LC	0	1	1
Hirundinidae	<i>Hirundo rustica</i>	Barn Swallow	WV	NE	1	1	1
Hirundinidae	<i>Hirundo daurica</i>	Red-rumped Swallow	Pro: END	LC	1	0	0
Pycnonotidae	<i>Pycnonotus melanicterus</i>	Black-crested Bulbul	Pro: END	LC	0	1	0
Pycnonotidae	<i>Pycnonotus cafer</i>	Red-vented Bulbul	BrR	LC	0	1	1
Pycnonotidae	<i>Pycnonotus luteolus</i>	White-browed Bulbul	BrR	LC	0	1	1
Cisticolidae	<i>Prinia hodgsonii</i>	Grey-breasted Prinia	BrR	LC	0	1	0
Cisticolidae	<i>Prinia sylvatica</i>	Jungle Prinia	BrR	LC	0	1	1
Cisticolidae	<i>Prinia socialis</i>	Ashy Prinia	BrR	LC	0	1	1
Zosteropidae	<i>Zosterops palpebrosus</i>	Oriental White-eye	BrR	LC	0	0	1
Sylviidae	<i>Acrocephalus dumetorum</i>	Blyth's Reed Warbler	WV	NE	0	1	1
Sylviidae	<i>Orthotomus sutorius</i>	Common Tailorbird	BrR	LC	1	1	1
Sylviidae	<i>Phylloscopus trochiloides</i>	Greenish Warbler	WV	NE	0	1	1
Sylviidae	<i>Phylloscopus magnirostris</i>	Large-billed Leaf Warbler	WV	NE	0	1	1
Timalidae	<i>Pellorneum fuscicapillum</i>	Sri Lanka Brown-capped Babbler	END	LC	0	1	1
Timalidae	<i>Dumetia hyperythra</i>	Tawny-bellied Babbler	BrR	LC	1	0	0
Timalidae	<i>Turdoides affinis</i>	Yellow-billed Babbler	BrR	LC	0	1	1
Dicaeidae	<i>Dicaeum erythrorhynchos</i>	Pale-billed Flowerpecker	BrR	LC	1	1	1
Nectariniidae	<i>Nectarina zeylonica</i>	Purple-rumped Sunbird	BrR	LC	1	1	1
Nectariniidae	<i>Nectarina asiatica</i>	Purple Sunbird	BrR	LC	1	1	1
Motacillidae	<i>Dendronanthus indicus</i>	Forest Wagtail	WV	NE	0	0	1
Estrididae	<i>Lonchura striata</i>	White-rumped Munia	BrR	LC	1	1	1
Estrididae	<i>Lonchura punctulata</i>	Scaly-breasted Munia	BrR	LC	1	1	1

Mammals

Family	Scientific Name	English Name	SpS	CoS	0m 900m	900 2900m	2900 3800m
Cercopithecidae	<i>Semnopithecus priam</i>	Grey langur	IND	LC	1	1	0
Mustelidae	<i>Lutra lutra</i>	Otter	IND	VU	0	1	0
Elephantidae	<i>Elephas maximus</i>	Elephant	IND	EN	0	1	1
Bovidae	<i>Bubalus arnee</i>	Wild buffalo	IND	VU	0	0	1
Cervidae	<i>Axis axis</i>	Spotted deer	IND	LC	0	1	1
Cervidae	<i>Rusa unicolor</i>	Sambur	IND	NT	0	1	1
Cervidae	<i>Muntiacus muntjak</i>	Barking deer	IND	NT	0	1	1
Suidae	<i>Sus scrofa</i>	Wild boar	IND	LC	0	1	1
Tragulidae	<i>Moschiola meminna</i>	Sri Lanka mouse-deer	END	LC	0	1	1
Hystriidae	<i>Hystrix indica</i>	Porcupine	IND	LC	0	1	0
Sciuridae	<i>Funambulus palmarum</i>	Palm squirrel	IND	LC	1	1	1
Sciuridae	<i>Ratufa macroura</i>	Giant squirrel	IND	LC	0	1	1
Leporidae	<i>Lepus nigricollis</i>	Black-naped hare	IND	LC	0	1	1

ANNEX 2 – DETAILED LIST OF PLANTS RECORDED IN PACKAGE 1 AFFECTED AREA OF THE UEC PROJECT

Family	Species	Common Name	Status	NCS
Acanthaceae	<i>Barleria prionitis</i>	Katu Karandu	N	LC
Acanthaceae	<i>Elytraria acaulis</i>		N	LC
Acanthaceae	<i>Stenosiphonium cordifolium</i>	Bu nelu	N	LC
Achariaceae	<i>Hydnocarpus venenata</i>	Makulu	E	LC
Amoryllidaceae	<i>Crinum latifolium</i>	Goda manel	N	VU
Anacardiaceae	<i>Mangifera zeylanica</i>	Atamba	E	LC
Anacardiaceae	<i>Nothopegia beddomei</i>	Bala	N	LC
Annonaceae	<i>Alphonsea sclerocarpa</i>		N	NT
Annonaceae	<i>Miliusa indica</i>	Kekili Messa	N	LC
Annonaceae	<i>Polyalthia korinti</i>	UI Kenda	N	LC
Annonaceae	<i>Uvaria sphenocarpa</i>		E	LC
Apocynaceae	<i>Calotropis gigantea</i>	Ela Wara	N	LC
Apocynaceae	<i>Carissa spinarum</i>	Heen-Karamba	N	LC
Apocynaceae	<i>Hemidesmus indicus</i>	Iramusu	N	LC
Apocynaceae	<i>Ichnocarpus frutescens</i>	Gerandi-Dul	N	LC
Apocynaceae	<i>Wattakaka volubilis</i>	Anguna	N	LC
Araceae	<i>Amorphophallus sylvaticus</i>		N	NT
Asparagaceae	<i>Asparagus racemosus</i>	Hatawariya	N	LC
Asteraceae	<i>Chromolaena odorata</i>	Podi singno maran	Ex	NE
Asteraceae	<i>Elephantopus scaber</i>	Eth adi	N	LC
Asteraceae	<i>Mikania cordata</i>	Wathu palu	Ex	NE
Asteraceae	<i>Vernonia cinerea</i>	Monorakudumbiya	N	LC
Asteraceae	<i>Xanthium indicum</i>	Wal-rambutang	N	LC
Begoniaceae	<i>Begonia cordifolia</i>	Gal-ambala	N	VU
Bignoniaceae	<i>Sterospermum colais</i>	Dunu-madala	N	LC
Boraginaceae	<i>Carmona retusa</i>	Heen-tambala	N	LC
Boraginaceae	<i>Cordia dichotoma</i>	Lolu	N	LC
Boraginaceae	<i>Ehretia laevis</i>		N	LC
Boraginaceae	<i>Heliotropium indicum</i>	Et-honda	N	LC
Capparaceae	<i>Crateva adansonii</i>	Lunuwarana	N	LC
Capparaceae	<i>Capparis rotundifolia</i>	Balal Katu	N	LC
Capparaceae	<i>Capparis zeylanica</i>	Wellangiriya	N	LC
Capparaceae	<i>Capparis sp.</i>			
Celastraceae	<i>Cassine congylos</i>		E	VU
Celastraceae	<i>Maytenus emarginata</i>		N	LC
Celastraceae	<i>Salacia oblonga</i>	Himbutu	N	EN
Colchicaceae	<i>Gloriosa superba</i>	Niyagala	N	LC
Combretaceae	<i>Terminalia arjuna</i>	Kumbuk	N	LC
Combretaceae	<i>Terminalia bellirica</i>	Bulu	N	LC
Commelinaceae	<i>Commelina diffusa</i>	Gira-pala	N	LC
Cucurbitaceae	<i>Momodica charantia</i>	Karavila	N	LC

Family	Species	Common Name	Status	NCS
Dioscoreaceae	<i>Dioscorea pentaphylla</i>	Katu-ala	N	LC
Dioscoreaceae	<i>Dioscorea sp.</i>			
Ebenaceae	<i>Diospyros ebenoides</i>	Kalu-habaraliya	E	EN
Ebenaceae	<i>Diospyros ebenum</i>	kaluwara	N	EN
Ebenaceae	<i>Diospyros malabarica</i>	Thimbiri	N	LC
Ebenaceae	<i>Diospyros oocarpa</i>	Kalu-Kadumberiya	N	NT
Ebenaceae	<i>Diospyros ovalifolia</i>	Kunumella	N	LC
Ebenaceae	<i>Diospyros vera</i>	Jabara	N	LC
Erythroxylaceae	<i>Erythroxylum moonii</i>	Bata-Kirilla	N	NT
Euphorbiaceae	<i>Croton aromaticus</i>	Wel-Keppetiya	N	LC
Euphorbiaceae	<i>Croton laccifer</i>	Keppetiya	N	LC
Euphorbiaceae	<i>Dimorphocalyx glabellus</i>	Weliwenna	N	LC
Euphorbiaceae	<i>Euphorbia antiquorum</i>	Daluk	N	LC
Euphorbiaceae	<i>Mallotus philippensis</i>	Hamparilla	N	LC
Euphorbiaceae	<i>Suregada lanceolata</i>		N	LC
Fabaceae	<i>Abrus precatorius</i>	Olinda	N	LC
Fabaceae	<i>Acacia caesia</i>	Hinguru-wel	N	LC
Fabaceae	<i>Bauhinia racemosa</i>	Maila	N	LC
Fabaceae	<i>Bauhinia tomentosa</i>	Kaha-Petan	N	LC
Fabaceae	<i>Cassia fistula</i>	Ehela	Ex	
Fabaceae	<i>Dendrolobium triangulare</i>		N	EN
Fabaceae	<i>Derris parviflora</i>	Kala-wel	E	LC
Fabaceae	<i>Erythrina fusca</i>	Yak-Earabadu	N	NT
Fabaceae	<i>Flemingia strobilifera</i>	Hampinna	N	LC
Hypoxidaceae	<i>Curculigo orchoides</i>	Bim thal	N	LC
Lamiaceae	<i>Hyptis suaveolens</i>	Ali thala	Ex	
Lamiaceae	<i>Gmelina asiatica</i>	Demata	N	LC
Lamiaceae	<i>Premna tomentosa</i>	Bu-Sera	N	LC
Lamiaceae	<i>Vitex altissima</i>	Milla	N	NT
Lauraceae	<i>Litsea glutinosa</i>	Bomi	N	LC
Loganiaceae	<i>Strychnos benthamii</i>		E	NT
Loganiaceae	<i>Strychnos potatorum</i>	Ingini	N	VU
Malvaceae	<i>Grewia damine</i>	Daminiya	N	LC
Malvaceae	<i>Grewia helicterifolia</i>	Bora-daminiya	N	LC
Malvaceae	<i>Helicteras isora</i>	Liniya	N	NT
Malvaceae	<i>Hibiscus micranthus</i>	Siriwedi babila	N	LC
Malvaceae	<i>Pterospermum suberifolium</i>	Welan	N	LC
Malvaceae	<i>Sida acuta</i>	Gas bebila	N	LC
Malvaceae	<i>Urena sinuata</i>	Heen-epala	N	LC
Meliaceae	<i>Azadirachta indica</i>	Kohomba	Ex	
Meliaceae	<i>Chukrasia tabularis</i>	Hulanhik	N	NT
Meliaceae	<i>Cipadessa baccifera</i>	Hal-Bembiya	N	LC
Menispermaceae	<i>Cissampelos pareira</i>	Diya-Mitta	N	LC
Moraceae	<i>Ficus microcarpa</i>	Panu-nuga	N	LC

Family	Species	Common Name	Status	NCS
Moraceae	<i>Streblus asper</i>	Geta-Netul	N	LC
Moraceae	<i>Streblus taxoides</i>	Gongotu	N	LC
Myrtaceae	<i>Syzygium cumini</i>	Ma-Dan	N	LC
Ochnaceae	<i>Ochna lanceolata</i>	Bo-Kera	N	LC
Oleaceae	<i>Chionanthus zeylanicus</i>	Geratiya	N	LC
Oleaceae	<i>Jasminum angustifolium</i>	Wal pichcha	N	LC
Orchidaceae	<i>Vanda spathulata</i>		N	VU
Phyllanthaceae	<i>Bridelia retusa</i>	Keta-Kela	N	LC
Phyllanthaceae	<i>Flueggea leucopyrus</i>	Katu pila	N	LC
Phyllanthaceae	<i>Margaritaria indica</i>	Karawu	N	VU
Phyllanthaceae	<i>Phyllanthus amarus</i>	Pitawakka	N	LC
Phyllanthaceae	<i>Phyllanthus polyphyllus</i>	Kuratiya	N	LC
Phyllanthaceae	<i>Sauropus rigidus</i>	Ginihiriya	E	NT
Picrodendraceae	<i>Mischodon zeylanicus</i>	Thammanna	N	LC
Poaceae	<i>Panicum maximum</i>	Gini tana / Rata tana	Ex	
Polygalaceae	<i>Polygala chinensis</i>		N	LC
Putranjivaceae	<i>Drypetes sepiaria</i>	Wira	N	LC
Rhamnaceae	<i>Zizyphus oenopila</i>	Hin-Eraminia	N	LC
Rhizophoraceae	<i>Cassipourea ceylanica</i>	Pana	N	LC
Rubiaceae	<i>Benkara malabarica</i>	Pudan	N	LC
Rubiaceae	<i>Canthium coromandelicum</i>	Kara	N	LC
Rubiaceae	<i>Canthium puberulum</i>		E	NT
Rubiaceae	<i>Catunaregam spinosa</i>	Kukuruman	N	LC
Rubiaceae	<i>Haldina cordifolia</i>	Kolon	N	LC
Rubiaceae	<i>Ixora coccinea</i>	Rath-mal	N	LC
Rubiaceae	<i>Ixora pavetta</i>	Maha-Rathambala	N	LC
Rubiaceae	<i>Mitragyna parvifolia</i>	Helamba	N	LC
Rubiaceae	<i>Oldenlandia herbacea</i>	Wal koththamalli	N	LC
Rubiaceae	<i>Psilanthus wightianus</i>		N	VU
Rutaceae	<i>Atalantia ceylanica</i>	Yakinaran	N	LC
Rutaceae	<i>Atalantia monophylla</i>	Apassu	N	LC
Rutaceae	<i>Chloroxylon swietania</i>	Burutha	N	VU
Rutaceae	<i>Glycosmis pentaphylla</i>	Dodan-Pana	N	LC
Rutaceae	<i>Pleiospermium alatum</i>	Tunpath-Kurundu	N	LC
Rutaceae	<i>Toddalia asiatica</i>	Kudu-Miris	N	LC
Sapindaceae	<i>Allophylus cobbe</i>	Kobbe	N	LC
Sapindaceae	<i>Dimocarpus longan</i>	Mora	N	LC
Sapindaceae	<i>Lepisanthes senegalensis</i>	Gal-kuma	N	LC
Sapindaceae	<i>Lepisanthes tetraphylla</i>		N	LC
Sapindaceae	<i>Schleichera oleosa</i>	Kon	N	LC
Sapotaceae	<i>Manilkara hexandra</i>	Palu	N	VU
Verbenaceae	<i>Lantana camera</i>	Ganda-pana	Ex	
Verbenaceae	<i>Stachytarpheta jamaicensis</i>	Balu-nakuta	Ex	
Verbenaceae	<i>Tectona grandis</i>	Thekka	Ex	

Family	Species	Common Name	Status	NCS
Vitaceae	<i>Cissus quadrangularis</i>	Heeressa	N	LC
Zingiberaceae	<i>Curcuma oligantha</i>		N	VU

ANNEX 3 – METHODOLOGY THAT SHOULD BE USED FOR TRANSPLANTING AND TRANSLOCATION OF SPECIES

Flora: Along the proposed canal trace

- The selected or prioritized plants have to be collected using the visual encounter method. The area targeted for construction should be criss-crossed to ensure that the entire area is examined. In this way, it is possible for the team to evaluate (look carefully for target plants) an area of 1-2 km² per day, depending on the habitat (For example, natural forests take longer while grasslands can be evaluated much faster).
- Each plant has to be tagged with a numbered metal tag, and the number and species noted against the location. Plants should be wrapped in poly bags and tied up.
- During the dry season collected plants have to be transported carefully to the project plant nurseries and maintained their till the onset of the wet season.

Selection of areas for transplanting:

- During the dry season, transplanting is not advisable as there is too little water available. Therefore, plants that have been collected should be maintained by a dedicated staff in nursery.
- Transplanting should be carried out during the wet season after careful examination of micro-locations. These sites should be listed and the list of plants in the nursery should be matched carefully with suitable habitats.
- Plants should then be clustered by location and transplanting be carried out in these locations.

Fauna: Should be undertaken immediately prior to vegetation clearance is started. Further, in addition to prioritized faunal species, other less-mobile species that cannot move out of the area of disturbance should also be removed.

1. **Translocation site selection:** Along the canal trace where the forest clearing will be occurred.
2. **Gathering baseline data:** Habitat and microhabitat (especially for snails, earth snakes) preference of targeted species to be translocated should be identified
3. **Method of capture:** Fish can be collected using seine and hand nets. Other less mobile species has to be collected by hand.
4. **Method of translocation and release:** Collected individuals should be transferred to suitable receptacle and transported to the translocation site and released. Before releasing the animals, habitats and microhabitat requirement of all translocated species has to be clearly identified at least 1 km away from the right bank of the proposed canal.

ANNEX 4 – PICTURE CATALOGUE



Land Snail - *Cyclophorus involvulus*



Freshwater Crab - *Oziothelphusa minneriyaensis*



Knuckles Danio - *Devario cf. aequipinnatus*



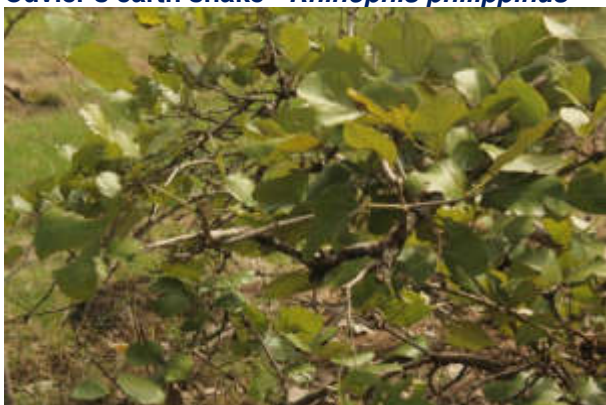
Stone sucker - *Garra ceylonensis*



Cuvier's earth snake - *Rhinophis philippinus*



Common lankaskink – *Lankascincus fallax*



Yak Erabudu (*Erythrina fusca*) - A near threatened tree



An Orchid – *Vanda spathulata*



A rare legume- *Dendrolobium triangulare*



A Begonia species – *Begonia cordifolia*



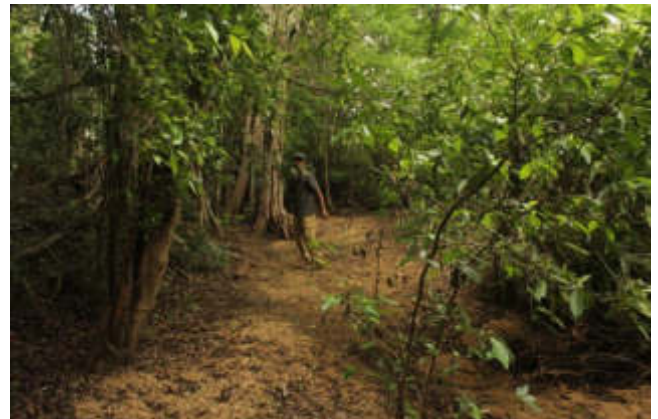
Giant Memosa - *Memosa pigra*



Tank habitat



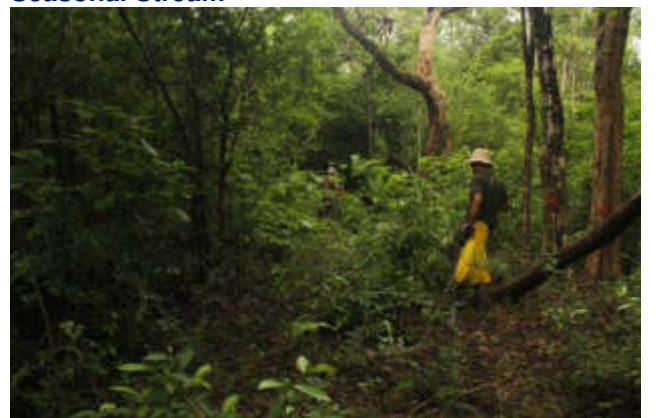
Open Grassland habitat



Seasonal Stream



Seasonal Stream in wet condition



Forest in middle section of Package 01



Upstream migrated Stone sucker *Garra ceylonensis*



Final part of the package o1 of UEC

IUCN, International Union for Conservation of Nature

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IUCN is the world's oldest and largest global environmental network - a democratic membership union with more than 1,000 government and NGO member organizations, and almost 11,000 volunteer scientists in more than 160 countries.

IUCN's work is supported by more than 1,000 professional staff in 60 offices and hundreds of partners in public, NGO and private sectors around the world. The Union's headquarters are located in Gland, near Geneva, Switzerland.

In Sri Lanka, through its Country Programme the Union seeks to fulfill this mission in collaboration with its various Commission Members, National Committee Members and Partners in Sri Lanka. IUCN in Sri Lanka commenced its operations since August 1988.



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***Rhizophis philippinus* (Cuvier's earth snake)**
Endemic and Endangered (EN) species

Annex 4

Photographic Evidences Related to Chapter 4



Community consultation ("Tunnelling Impacts on Community) in KMTC



Joint field inspection with DWC officers in Open Canal Area and Tunnel 1 Inlet Portal area (2020.05.19) in KMTC

Access road preparation to facilitate the timber removal process by STC in KMTC open canal area



Joint field visit done by PMDSC and Contractor before starting of the works in KMTC

Arranged a site visit by PHI- Lel Oya Tunnel portal area

	
<p>Joint site inspection for utility shifting and tree removal in KMTC Access road</p>	<p>Clearing trees fallen to access roads to Tunnel 2 Outlet area in KMTC</p>
	
<p>Arrival of PHI to UECP-ICB-1 site before resumption of work</p>	<p>Meeting with DWC on preparing ECP for UECP-ICB-1</p>

Annex 5

Progress of Implementing Corrective Actions as per CAP Dec 2019 on Beligoda forest Clear

Mahaweli Water Security Investment Program

Upper Elahera Canal Project-Kaluganga-Moragahakanda Transfer Canal (ICB-2B) Construction Package

Progress of Implementing Corrective Actions on Unauthorized Clearance of Part of Forest Reserve in Beligamuwakanda as at 30/06/2020

No	Action	Description	Monitoring Program		Progress as at 30/06/2020
			Indicators/ Frequency	Responsibility	
1	Legal enforcement (paragraph 3.1 of IUCN report (June, 2019))	i. Prevention of further damage by strictly imposing adherence to FO by developer through below actions;	As follows;		As follows;
		<u>Corrective Action i.a:</u> The damaged site is cordoned off to prevent entrance, Contractor's personnel were educated and being regularly monitored by PMDSC & PIU.	Visual observation with photographic evidence on weekly basis (To ensure no further damaging to the site)	FD Employer (PMU, PIU)	Barricades were removed to made access for damaged site restoration on 17/12/'19 with FD approval and Contractor was advised to work within restoration zone. Monitoring continues regularly by FD and intermittently by PIU. SEO and STO of PIU inspected site with RFO and FA of FD (Naula office) and Contractor on 12/03/2020. SEO inspected site with Contractor on 28/05/2020. <i>Attachment -1 for photographic evidence</i>
		<u>Corrective Action i.b:</u> The truck was removed in 3 rd week of October, 2019 along Right Bank of Kambarawa stream, in advance of adopting erosion control measures at entrance of the damaged site with upcoming rainy season, without further damaging the cleared area in consultation of FD.	No further monitoring is required since this is a completed action as at end of November, 2019	Not applicable	Completed
		ii. Imposing of fines (as defined in FO) in lieu of the damage caused			

Mahaweli Water Security Investment Program

Upper Elaheira Canal Project-Kaluganga-Moragahakanda Transfer Canal (ICB-2B) Construction Package

Progress of Implementing Corrective Actions on Unauthorized Clearance of Part of Forest Reserve in Beligamuwakanda as at 30/06/2020

		<p><u>Corrective Action:</u> FD will inform Contractor the amount of penalties for violation of FO and the time line for payment of same to the FD, by 11/12/2019.</p>	<ul style="list-style-type: none"> • Written notification by the FD/ Once • Documentary evidence of payment of penalties by the FD/ Once or Periodical as per time line enforced by FD 	FD Employer (PMU)	FD informed PMU that calculation of penalties is in progress as per provisions of the FO.
2	Damage & restoration (paragraph 3.2)	<p>i. Contractor pay cash payment of 31.4 Mil LKR on top of all recommended actions they have to comply.</p> <p><u>Corrective Action:</u> FD will inform Contractor the damage cost and the time line for payment of same to the FD, by 11/12/2019.</p>	<ul style="list-style-type: none"> • Written notification by the FD/ Once • Documentary evidence of payment of penalties by the FD/ Once or Periodical as per time line enforced by FD 	FD Employer (PMU)	<p>IUCN confirmed accuracy of calculating 31.4 Mil LKR, in response to Contractors concern.</p> <p>FD confirmed PMU that amount of payment will be notified together with the penalties.</p>
		<p>ii. Contractor undertake ecological restoration of 10 Ha in same watershed (appropriate cost is estimated as 30.0 Mil LKR),</p>			

Mahaweli Water Security Investment Program

Upper Elaheera Canal Project-Kaluganga-Moragahakanda Transfer Canal (ICB-2B) Construction Package

Progress of Implementing Corrective Actions on Unauthorized Clearance of Part of Forest Reserve in Beligamuwakanda as at 30/06/2020

	<p><u>Corrective Action:</u> FD expect to submit guideline to the Contractor enabling to start reforestation activity within December, 2019.</p>	<p>Written confirmation from FD on receipt of acceptable financial commitment from Contractor/ Once or Periodical as per time line enforced by FD</p>	<p>FD Employer (PMU)</p>	<p>FD issued guideline by their letter No. 5/4/3/15/ඉහත ඇතහැර ඇත/Vol. ii, dated 13/12/'19. An abandoned paddy land (of Kaluganga resettled community) in Gangahenwala in Laggala RFO & Divisional Secretary zones was handed over, with action plan (refer Attachment-2 in January 2020 progress report)</p>
	<p><u>Related subsequent events:</u> ii.a Contractor to deposit/ submit a bank guarantee; equivalent to estimated cost of ecological restoration in FD.</p>	<p>Issued guideline on ecological restoration to Contractor with specifications, time plan with deliverables & estimate/ Once</p>	<p>FD Employer (PMU)</p>	<p>FD informed PMU that bank guarantee is pending to the date but reforestation in 10 Ha land was completed to meet specifications of FD by Mid-February 2020.</p>
	<p>ii.b Contractor to start and complete ecological restoration as per the guideline.</p>	<ul style="list-style-type: none"> • Visual observation with photographic evidence/ Periodical as per FD specified time plan, • Monitoring reports of FD/ Periodical as FD scheduled, • Letter of completion from FD/ Once 	<p>FD Employer (PMU, PIU) with assistance of Engineer (PMDSC) as required</p>	<p>Contractor completed planting of 10 Ha to acceptance of FD. 10,000 plants consist of <i>Kumbuk, Weera, Mango, Karanda, Palu, Damba, Wood apple, Halmilla, Attikka, Madan and Mee</i> were planted as instructed by the FD. Maintenance continues under supervision of FD as per the agreed plan. <i>Refer Attachment 2 for photographic evidence. A report from FD is awaited.</i></p> <p><i>Refer Attachment 3 for the letter No. 5/4/3-MWSIP/KMTC dated 14/02/2020.</i></p>

Mahaweli Water Security Investment Program

Upper Elahera Canal Project-Kaluganga-Moragahakanda Transfer Canal (ICB-2B) Construction Package

Progress of Implementing Corrective Actions on Unauthorized Clearance of Part of Forest Reserve in Beligamuwakanda as at 30/06/2020

	<p>iii.Undertake rehabilitation of damaged area (cost is estimated as 12.5 Mil LKR; IUCN-June, 2019) through below actions;</p>			
	<p>Corrective Action: iii.a: Contractor to consult DFO (Mathale)/ FD before 09/12/2019 to finalize site restoration plan and start implementation on priority basis as decide at the same meeting with regular supervision of FD officers</p> <p>Related subsequent events: Contractor to start and complete the damaged site restoration as per the action plan</p>	<p>Availability of damaged site restoration plan recommended by FD/ Once</p> <ul style="list-style-type: none"> • Visual observation with photographic evidence/ Weekly, • Monitoring reports of FD/ Periodical as FD scheduled, • Letter of completion from FD/ Once 	<p>FD Employer (PMU, PIU)</p> <p>FD Employer (PMU, PIU) with assistance of Engineer (PMDSC) as required</p>	<p>FD issued guideline, based on IUCN recommendations by their letter No. 5/4/3/15/ඉහත ඇතහැර ඇත/Vol. ii, dated 13/12/'19. (refer Attachment-4 in January 2020 progress report).</p> <p>Contractor continued site restoration since 17/12/'19 since FD agreed extending completion date from 31/12/2019 to 31/03/2020. The work continued until site closure due to COVID-19 control action of GOSL on 17/03/2020 and is now schedule to be started in 3rd week of June 2020.</p> <p><i>Refer Attachment-1 for progress of action as at 12/03/2020</i> based on site monitoring inspection by SEO and STO of PIU inspected site with RFO and FA of FD (Naula office) and Contractor.</p> <p>Site condition remains unaffected during this closure period as evident in pictures captured <i>on 28/05/2020 in Attachment 1</i> based on site monitoring inspection by SEO with the Contractor.</p> <p>To be received on completion</p>

Mahaweli Water Security Investment Program

Upper Elahera Canal Project-Kaluganga-Moragahakanda Transfer Canal (ICB-2B) Construction Package

Progress of Implementing Corrective Actions on Unauthorized Clearance of Part of Forest Reserve in Beligamuwakanda as at 30/06/2020

		<p><u>Corrective Action: iii.b:</u> Contractor to deposit LKR 12.5 million or submit a bank guarantee to FD on/ before 20/12/2019.</p>	<p>Written confirmation from FD on receipt of acceptable financial commitment from Contractor/ Once or Periodical as per time line enforced by FD</p>		<p>FD informed PMU that bank guarantee is pending to the date but instructed to start restoration.</p>
		<p><u>Corrective Action: iii.c:</u> FD expect to submit guideline to the Contractor for tree planting in damaged site area at completion of structural mitigation.</p> <p><i>Relevant subsequent events:</i> Contractor to start and complete ecological restoration as per the guideline.</p>	<p>Issuance of guideline for ecological restoration by FD to Contractor with specifications, time plan with deliverables & estimate/ Once</p> <ul style="list-style-type: none"> • Visual observation with photographic evidence/ Weekly, • Letter of completion from FD/ Once 	<p>FD Employer (PMU)</p> <p>FD Employer (PMU, PIU) with assistance of Engineer (PMDSC) as required</p>	<p>FD guidelines for reforestation (tree planting) after site restoration is included in their letter issued on 13/12/2019 as in Attachment-4 in January 2020 progress report.</p> <p>Ground preparation was commenced in 2nd week March 2020 and remains undisturbed as shown in <i>item 8 (RHS) in Attachment 1.</i></p>

Mahaweli Water Security Investment Program

Upper Elahera Canal Project-Kaluganga-Moragahakanda Transfer Canal (ICB-2B) Construction Package




Progress of Implementing Corrective Actions on Unauthorized Clearance of Part of Forest Reserve in Beligamuwakanda as at 30/06/2020




3	Rehabilitation of damaged area (paragraph 4)	i. Remove abandoned truck from the Island Corrective Action: The truck was removed in 3 rd week of October, 2019 along Left Bank of Kambarawa stream.	No further monitoring is required since this is a completed action as at end of November, 2019	Not applicable	Completed action
		ii. Restoration by soil stabilization and run off water control	These are being key corrective actions in the damaged site restoration plan; please refer to respective columns under the “corrective action iii.a” under the item 2.iii in this table.		In progress. Refer corrective action 2.iii.a.
		iii. Stabilization of damaged stream beds,			Started and in progress, please refer <i>Attachment 1</i> for photographic evidence.
		iv. Stabilization of leaning trees,			Yet to be started as per the “restoration plan” issued by FD
		v. Vegetative restoration interventions;	Briefed below under relevant category;		
		a. <u>On-site</u> planting of trees (road cut area & buffer strip)	Please refer to respective columns under the “corrective action iii.c” under the item 2.iii in this table.		To be started. Refer corrective action 2.iii.c.
		b. <u>Off-site</u> planting of trees on environmental damage compensation mechanism Corrective Action: FD expect to submit guideline to the Contractor enabling to start reforestation activity within December, 2019	Please refer to respective columns under the item 2.ii in this table.		Completed and maintenance in progress. Refer corrective action 2.ii.b.

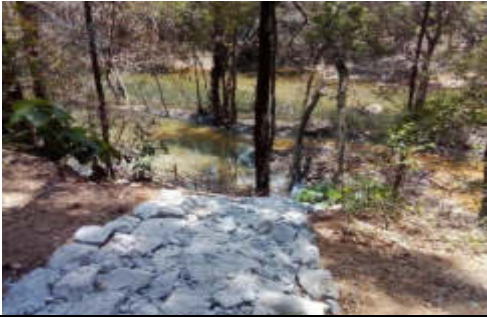


FD – Forest Department, FO – Forests Ordinance, FA – Forests Assistant, PIU – Project Implementing Unit, PMDSC – Program Management Design and Supervision Consultant, PMU – Program Management Unit, RFO – Range forests Officer, SEO – Senior Environment Officer, STO - Senior Technical Officer





Photographic presentation of the site status as at Mid of March and End of June, 2020




Along the LHS of River Bank (Kambarawa Stream)

No.	Chainage	Proposed restoration method	Current Progress	Status as a photograph	
				As at mid of March	As at end of June
1	-4m to 9m	Divert runoff water using Brush Wood Barriers	To be executed		
2	-4m to 22m	Reestablish soil cover around the root system Rubble pack or timber to stabilize cut areas towards mountain	Stone wall established up to required height some more soil amount required to cover entire root system Established up to top level of cut area with suitable rubble packing		 Remains undisturbed
3	24m (LM 02)	Gulley plug using rubble	To be established		
4	30m (LM 03)	Gulley plug using rubble	To be established		
5	30m	Bridge over the fallen tree	Cut the fallen tree as suitable to prepare work space for rehabilitation on instructions obtained on site from the RFO-Laggala		



6	35m (LM 04) to 47m (LM 05)	Rubble pack or timber to stabilize cut areas towards mountain 35m (Stream 1) - Stream path prepare with rubble	Established as required The stream path and stream bed prepared adequately		
7	47m to 58m	Rubble packing for cut slope with tree routes	Established at the moment but few rubble packing height to be executed with more soil to cover cut edge roots of trees.		 Natural regeneration of plants along gentle slope in restored area
8	58m	Gulley plug using rubble	To be established		
9	58m to 78m (LM 06)	Rubble pack for cut slope	Established as required		
10	78m to 108m	Rock exists in cut slope	No requirement for slope protection		
11	108m – Stream 2	Arrange stream path using rubble	Stream path prepared as required		




12					 Stream path is reaching to natural stabilization
13	108m (LM 7) to 138m (LM 8)	Boulder pack for cut slope	Established as required		
14	138m (LM 8)	Tree fallen	Cut the fallen tree as suitable to prepare work space for rehabilitation on instructions obtained on site by RFO- Laggala		

15	138m (LM 8) to 168m (LM 9)	LM 9 - Stream 3 path prepare with boulder arrangements Protect cut with low height using brush wood	Prepared the stream path as required Protected the cut area with rubble packing		
					Land reaching natural stability with mulch & fallen brush wood
16	168m to 195m (LM 10)	Tree Fallen LM 10 - Stream 4 path prepare with rubble	Cut the fallen tree as suitable to prepare work space for rehabilitation on instructions obtained on site by RFO- Laggala Prepared the stream path as required		
17	195m (LM 10) to 208m	Small cut area protect with brush wood	Small cut area protected with rubble packing		

18	217m (LM 11)	-	-		
19	224m	Prepare Gulley plug using rubble	To be established		
20	261m (LM 12) to 284m (LM 13)	Erosion control of the slope terrain using brush wood	To be established		
21	355m (LM 15)	Stream prepare using rubble	Stream path prepared as required		
22	355m to 434m (LM 16)	Brush wood protection for erosion control LM 16 - Prepare Gulley plug using rubble	To be done		
23	450m +	Slope protection using rubble packing	Already established		
24	531m (LM 17) to 550m	Erosion control of the slope terrain using brush wood	Already established with rubble packed steps		
25	550m to 580m (Kabarawa Oya Edge)	Stone walls establish with steps	Gabion wall established		

Along the RHS of River Bank (Kambarawa Stream)

No.	Chainage	Proposed restoration method	Current Status of Progress		
1	0m to 108m (LM 1)	Replant only	-		
2	108m (LM 1) to 120m (LM 2)	Erosion control of the slope terrain using brush wood Cut slope protect with rubble stone barriers	To be established Established as required		 <p>Natural regeneration of forest started on gentle slope</p>
3	198 (LM 3)	-	-		
4	218m	Gulley plug using rubble - LM 3	To be prepared		
5	274m (LM 4)	-	-		
6	317m	Prepare stream bed with rubble	Prepared the stream bed with rubble		

7					
8	358m (LM 5) to 408m (LM 6)	Slope protection using rubble	Established as required		 <p>Preparation for tree planting on damaged area remains undisturbed</p>

Progress of Compensatory Reforestation as at 30/06/2020



Mee (*Madhuca longifolia*) plants



Kumbuk (*Terminalia arjuna*) plants



Mango (*Mangifera indica*) plants

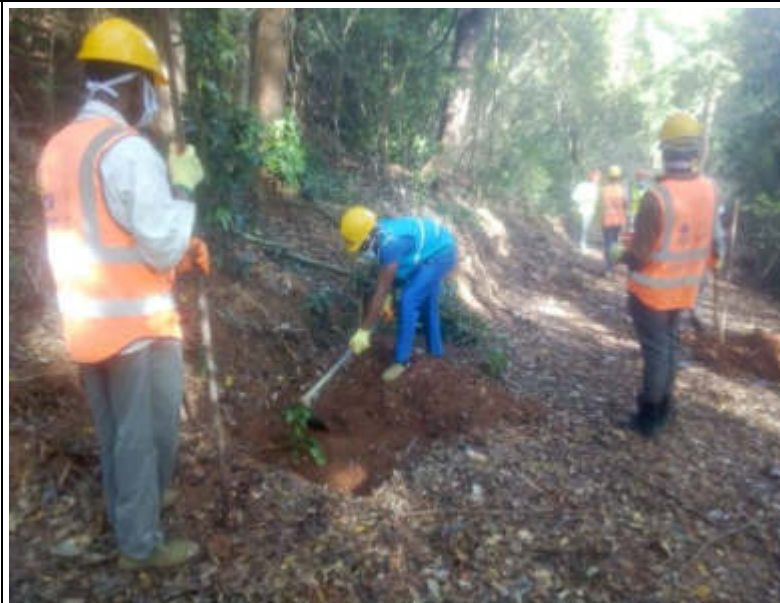


Demarcated boundary of the land

Progress of Reforestation as part of restoring the damaged zone as at 30/06/2020



Land preparation for root ball tree planting at 168m (LM 9) on LHS



Continue land preparation at 400m to 480m zone on LHS



ಶಿವ ಸರ್ಕಾರದ ಅರಣ್ಯ ಇಲಾಖೆ
FOREST DEPARTMENT
ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಅರಣ್ಯ ಇಲಾಖೆ

ಶಿವ ವಿಭಾಗೀಯ ಅರಣ್ಯ ಇಲಾಖೆ - ಮಾತಲೆ
DIVISIONAL FOREST OFFICE - MATALE
ಮಾತಲೆ, ಕರ್ನಾಟಕ ಸರ್ಕಾರದ ಅರಣ್ಯ ಇಲಾಖೆ



ದೂರವಾರ್ತೆ
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ಇಮೇಲ್
Email : dforest@yahoo.com

ಈ ದಾಖಲೆಯ
ಸಂಖ್ಯೆ
My Ref : 54/3-MWSIP/KMTC

ಈ ದಾಖಲೆಯ
ಸಂಖ್ಯೆ
Your Ref :

ದಿನಾಂಕ
Date : 2020.02.14

Project Manager

Upper Elahara Canal (Kahangas - Moragahakanda Transfer Canal) Project

Starting of Restoration Works at Beligoda Reserve Forest

This is reference to your letter L-KMTC-SL-2020002, dated 22nd January 2020

02. We are highly appreciate your 10 hectare restoration forest plantation works implemented in the Beligoda forest reserve to minimize environmental damages of (unauthorized road construction blocks

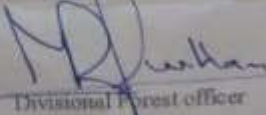
03. Based on the inspection done by Regional Forest Officer (RFO) Laggala, he has suggested following activities to be implement to the Established forest plantation in Beligoda forest reserve

- Plants should be maintained for 5 year until it grow up into a natural forest
- Demarcation of the boundaries should be done to protect the established plantation
- Notice boards should be established to identify the plantation

04. Accordingly I would like to request you to make necessary requirements to implements those activities.

Your kind co-operation on this is highly appreciated

Thank you



Divisional Forest officer

Matale

Copy

Regional Forest Officer (RFO) Laggala

- for your information & necessary action please

Annex 6

Progress of implementing Wildlife Management Plan in UECP

Annex 6.1 - Implementation & Monitoring Institutional Mechanism of WMP under the MWSIP

Annex 6.2 - Total Budget and Implementation of Wildlife Management Action Plan – UECP

Annex 6.3 – (i) The Budget and Implementation Schedule of Priority Actions of Wildlife Management Master Plan of UECP under the allocated ADB Funds (PAP-WMP-UECP)

(ii) The Budget and Implementation Schedule of Non Priority Actions of Wildlife Management Master Plan of UECP

(iii) Progress of implementing WMP in UECP area

Annex 6.4 - Participatory sessions for WMP implementation

Annex 6.1 - Implementation & Monitoring Institutional Mechanism of WMP under the MWSIP

Implementation & Monitoring Institutional Mechanism of WMP under the MWSIP

I. This is based on followings;

Existing institutional setup for implementing MWSIP

Mitigations proposed with implementing arrangement in the CEA approved WMP

II. Overall Institutional Mechanism

No.	Category of mitigation actions*	Responsibility		
		Implantation	Coordination	Monitor & Guide Implementation
1	Mitigations directly related to Civil works (BoQ items of the respective Contractor)			
a	Constructing mitigation structures in the WMP (WMP-section 6.6.1)	Contractor	PMDSC/ PIU/ PMU	Steering Committee of MWSIP DWC
b	Restoration of ecosystems under (WMP-section 6.5.1) as PS-BOQ item	Contractor	PMDSC/ PIU/ PMU	
c	Site preparation related activities (e.g. critical plant transplanting)	PIU	PMU/ PMDSC	
2	Mitigations not directly related to Civil works (specific fund for implementing WMPs)			
a	Improving habitat availability for wildlife (WMP-section 6.5)	PIU/ PMU Gov. Agencies Community/ CBO Experts/ NGO	PIU/ PMU	1. Steering Committee of MWSIP (Existing) Sec./MMDE, Heads of CEA, DWC, FD, NPD, MASL, ID, ADD etc. 2. National Committee - Review of WMP Implementation:- PD-PMU, D/ Operations-DWC, CF/ EM&A-FD, Dir./ Env.-MASL, Dir./ Env.-ID, Deputy Commissioner/ Develpt.-DAD, Env. Sp./PMU 3. Regional Committee - Review of WMP Implementation (in NWPCP or UECP):- PD-PIU, Add. Dist. Sec (Develpt.), AD-DWC, DFO-FD, RPM-MASL, RDI-ID, Prov. Com.-DAD, Sen. Env. Officer-PIU
b	HEC management activities (WMP-section 6.7)	PIU/ PMU Gov. Agencies Community/ CBO Experts/ NGO	PIU/ PMU	

Note: * - Actions in WMP are taken in to 2 categories based on the institutional mechanism of the MWSIP that consists of (Employer) PMU, PIU; (Design-Supervision consultant) PMDSC and Contractor as well as Relevant Mandatory Government Institute on proposed action.

III. Specific Unit and Recruitment of Staff to MWSIP to facilitate above institutional mechanism within existing MWSIP set up:-

a) Name of the unit:

Implementation Unit of the Wild Life Management Plan (**IU-WMP**) as a part of the **Safeguard Cell of MWSIP**.

b) Responsibility:

Overall planning, implementation and monitoring implementation of the WMPs of NWPCP and UECP under the guidance of (1) MWSIP and (2) National/ Regional Review Committees of WMP Implementation.

c) Composition of IU-WMP:

3 officers having knowledge & experience in the field of Wildlife Management as follows;

- i. One (1) National Coordinator Implementing Wildlife Management Plans under the MWSIP
- ii. Two (2) Implementation Officer of WMP for NWPCP and UECP

d) These officers will be recruited under the MWSIP institutional set up as follows;

R.No.	Position	Job scope	Level-MSD Circ.	Reportable to	Responsible to
1	National Coordinator Attached to the PMU-MWSIP	Provide national level inputs and Guide for execution of the WMPs of NWPCP, UECP and MLBCRP (as required) with undertaking follow up monitoring and reporting	PS-4	ES-PMU	PD-PMU/ MWSIP
2	Implementation Officer Attached to the PIU-NWPCP	Execute the WMP of NWPCP effectively liaising with Contractors, Stake holder agencies & Communities with undertaking follow up monitoring and reporting	PS-5	SEO-PIU-NWPCP	PD-PIU-NWPCP
3	Implementation Officer Attached to the PIU-UECP	Execute the WMP of UECP effectively liaising with Contractors, Stake holder agencies & Communities with undertaking follow up monitoring and reporting	PS-5	SEO-PIU-UECP	PD-PIU- UECP

IV. The proposed implementation and monitoring responsibility with mode/ tools of monitoring:

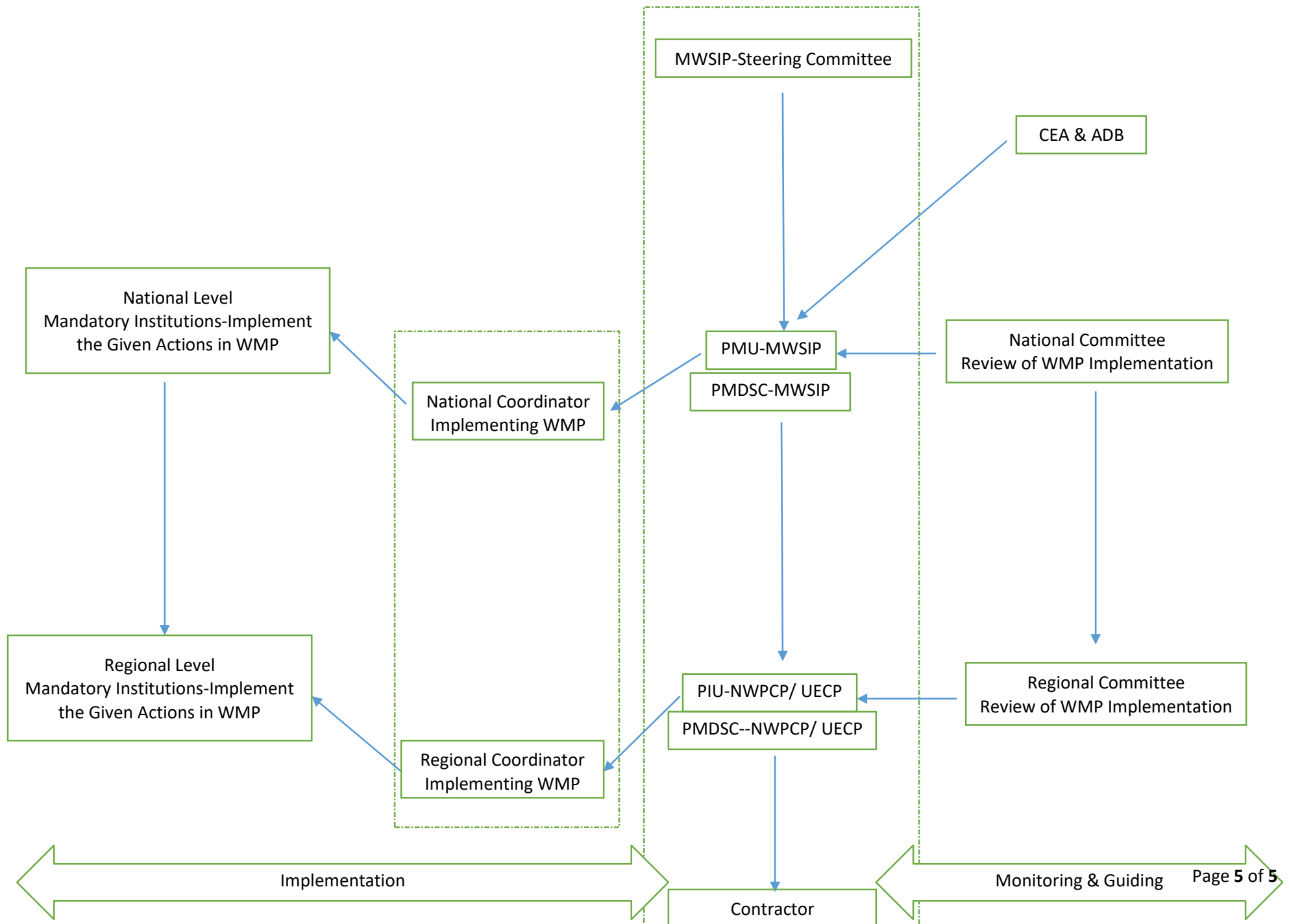
No.	Category of mitigation actions	Responsibility				
		Implementation/ Coordination		Monitoring		
		Implantation	Coordination	Self	Independent	External
1	Mitigations directly related to Project constructions					
a	Constructing mitigation structures in the WMP	Contractor	PMDSC/ PIU	Contractor PMDSC (RE/ TL) PIU/ PMU <i>Note 1</i>	Independent Environment Safeguard Monitoring Specialist <i>Note 4</i>	CEA (& DWC) ADB <i>Note 5</i>
b	Reforestation proposed in WMP under the BOQ item	Contractor	PMDSC/ PIU	Contractor PMDSC (RE/ TL) PIU/ PMU <i>Note 1</i>		
c	Site preparation related activities (e.g. critical plant transplanting)	PIU	PMDSC	PMDSC (RE/ TL) PIU/ PMU <i>Note 2</i>		
2	Mitigations not directly related to Project constructions					
a	Improving habitat availability for wildlife (WMP-section 8.5; except 1 items)	Gov. Agencies Community/ CBO Experts/ NGO	PIU/ PMU	PIU PMDSC (TL) PMU <i>Note 3</i>	Independent Environment Safeguard Monitoring Specialist <i>Note 4</i>	CEA (& DWC) ADB <i>Note 5</i>
b	HEC management activities (WMP-section 8.7; except 1 items)	Gov. Agencies Community/ CBO Experts/ NGO	PIU/ PMU	PIU PMDSC (TL) PMU <i>Note 3</i>		

“Note” presents the mode of monitoring and tools to be used for monitoring

	Mode of monitoring	Monitoring tool/s
<i>Note 1</i>	As per Table 2 of Annex 1	<ul style="list-style-type: none"> ➤ Relevant records of items 6 to 11 in Table 2 of Annex 1 ➤ Monitoring will be based on;

		<ul style="list-style-type: none"> • Contractor's work program and • Mitigation actions in WMP
Note 2	<ul style="list-style-type: none"> ➤ Weekly/ Monthly audit by PIU & PMDSC (RE) ➤ Monthly audit by PMU& PMDSC (TL) ➤ Monthly progress meeting 	<ul style="list-style-type: none"> ➤ Relevant records ➤ Monitoring will be based on; <ul style="list-style-type: none"> • Contractor's work program and • Mitigation actions in WMP
Note 3	<ul style="list-style-type: none"> ➤ Weekly/ Monthly audit by PIU & PMDSC (RE) ➤ Monthly audit by PMU& PMDSC (TL) ➤ Monthly progress meeting 	<ul style="list-style-type: none"> ➤ Relevant records ➤ Monitoring will be based on the "Gant Chart" of the WMP
Note 4	<ul style="list-style-type: none"> ➤ Review the existing documents, brief site audits and consultation of key parties/ agencies involved ➤ 1st month after each 6 months in each Calendar year 	Semiannual monitoring report
Note 5	<ul style="list-style-type: none"> ➤ Reviewing periodical submissions of PMU, ➤ Site audits of Environment Monitoring Committee (EMC) or ➤ Separate committee to review progress of WMP implementation, ➤ Appointing Independent monitoring Panel headed by DWC or DS etc. deem necessary by CEA and ADB in consultation with DWC 	<ul style="list-style-type: none"> ➤ Receiving monthly/ quarterly progress reports on implementing WMP from PMU ➤ Receiving dedicated section on progress of implementing WMP in Semiannual Environmental monitoring Report from PMU/ PMDSC ➤ Undertaking periodical site audits as part of EMC evaluation or through a dedicated Committee on WMP implementation as CEA & ADB wishes.

The Organogram-Implementation of the WMP for NWPCP and UECP under the MWSIP



Annex 6.2 - Total Budget and Implementation of Wildlife Management Action Plan – UECP

Total Budget and Implementation of Wildlife Management Action Plan - UECP										
WMP Ref. No	Main Objectives	Activity	PMU Budget Rs.	years						
				2019	2020	2021	2022	2023	2024	2025
6.5.1	Enrichment/Restoration of identified habitat within the existing protected area and selected tanks in the project commanding area.	a)Restoration of identified areas/ habitats for fauna (5km2) (Relevant maps in the WMP are attached)	9,900,000.00							
		b) Ecological restoration of selected tanks	7,200,000.00							
		c) Establishing a buffer strif along the canal reace	21,250,000.00							
6.5.2	Management of invasive species	a) Eradication/Control of invasive flora species and native species undergoing range expansions	800,000.00							
		b)Management of IAS	14,000,000.00							
6.5.4	Annexing adentified areas to exixting Pas	Annexing a 12 km2 area to Mahakanadarawa Sanctuary, declaring Eru Wewa and Manankattiya as new sanctuaries. It will add 23 km2 area to PA network.	3,000,000.00							
		Annexing 54.79 km2 to forest reserves managed by the Forest Department								
6.6.2	Implementing a rescue program to translocate / transplant identified animal and plant Spp.	Rescue of priority plants and animal species (specified in and any Table 37 and Table 38 other relevant species)	9,000,000.00							
		Collection of fauna and flora specimens to be deposited in the relevant agencie								
6.7.	HEC Mitigatory measures to be implemented in areas impacted by the UECP	Set up a dedicated unit in the PMU to coordinate and implement the HEC management measures	42,000,000.00							
		Set up a beat DWC office at Kitul Uttuwa.	23,280,000.00							
		Limit cultivation of paddy fields to two seasons	4,000,000.00							
		Establish reservoir water management regiment to mximise resevoir bed grasslands in dry season								
		Radio collar 20 female and 10 male elephants	33,840,000.00							
		Establish elephant corridor 1-8 identified by DWC	159,370,002.00							
		Establish additional elephant corridors and habitat linkages identified from new radio tracking data	300,200,000.00							
		Declare elephant habitat as FD reserves	5,000,000.00							
		Declare as FD /DWC reserves any additional forest patches identified from new radio tracking data as critical habitats for elephants	255,400,000.00							
		Regulate chena cultivation	10,140,000.00							
		Declare elephant range as MER under the DWC	300,000.00							
		Establish seasonal paddy field fencing programme through DAD	200,140,000.00							
		Establish permanent fencing programme around villages through DS	207,500,000.00							
		Develop and implement insurance scheme for crop damages caused by elephants	100,300,000.00							
		Develop and implement awareness programme	50,500,000.00							
		Total	1,457,120,002.00							

Annex 6.3 – (i) The Budget and Implementation Schedule of Priority Actions of Wildlife Management Master Plan of UECP under the allocated ADB Funds (PAP-WMP-UECP)

(ii) The Budget and Implementation Schedule of Non Priority Actions of Wildlife Management Master Plan of UECP

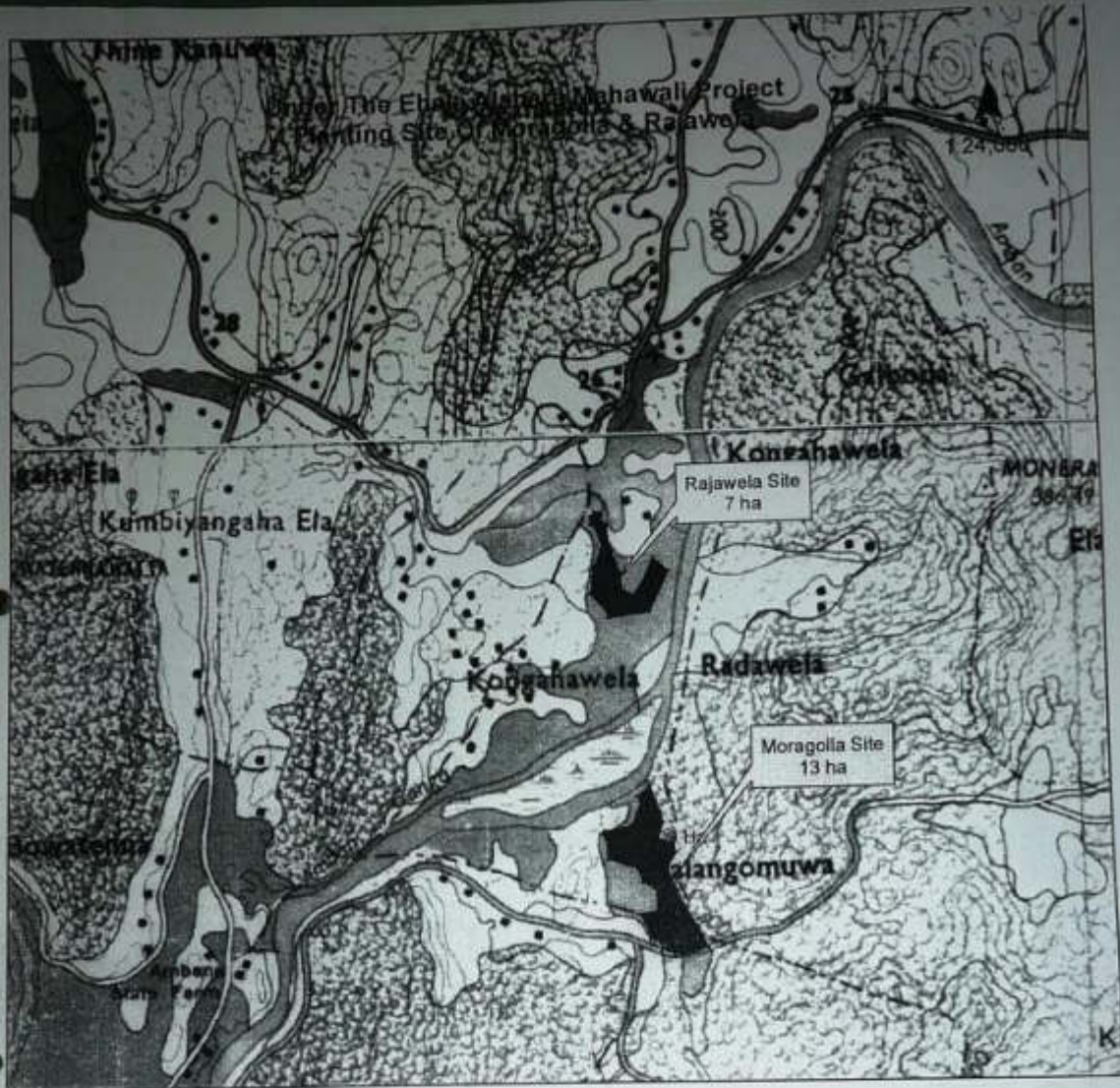
(iii) Progress of implementing WMP in UECP area

The Budget and Implementation Schedule of Priority Actions of Wildlife Management Master Plan of UECF under the allocated ADB Funds (PAP-WMP-UECF)											
WMP Ref. No	Main Objectives	Activity	Estimate/LKR	Priority	Years						
					2019	2020	2021	2022	2023	2024	2025
6.5.1	Enrichment/Restoration of identified habitat within the existing protected area and selected tanks in the project commanding area.	a)Restoration of identified areas/ habitats for fauna (5km2) (Relevant maps in the WMP are attached) Reforestation of Forest Reserves - 450 Ha -FD *Laggala Range - 20 ha *Naula Range - 30 ha *100 ha. of Elahera reserve forest *100 ha. of Hurulu Conservation forest *100 ha. Huruluwewa FR Area *100 ha. Hurulu forest Matale FD Division FD Division Anuradhapura FD Division	25,019,560.00 +7,134,600.00	First Priority Two MoUs - Signed 1. FD Matale - Total Cost for reforestation activities (Rs.) 2. FD Pollonnaruwa - Total Cost for reforestation activities - Rs. (Hurulu Conservation Forest - 100 ha. and Elahera Reserve Forest - 100 ha.) Preperation for MoU for FD Anuradhapura is in progress - 200 ha.	Reforestation Plant production, Survey & Preparation of maps, Land preparation, Seedling transportation and tree planting, *Laggala Range - 20 ha *Naula Range - 30 ha	*100 ha. of Elahera reserve forest *100 ha. of Hurulu Conservation forest	*100 ha. Huruluwewa FR Area *100 ha. Hurulu forest	First Maintenance	Second Maintenance	Third Maintenance	Forth Maintenance
		Restoration of eleven Tanks within Wildlife Reserves (Olumaduwa Wewa and Weheragala Wewa in Kaudulla NP / Alisthana Wewa in Ritigala SNR / Goonapaniella Wewa, Bogahadamana Wewa, Kethigannewa Wewa in Minneriya NP / Thumbikulama Wewa and Kudawewa in Thumbikulama FD Area / Mailankulama Wewa, Bogaha Wewa and Irigeoya Wewa Hurulu Conservation FD Area		First Priority	*Ground Identification and mapping *Level Survey and Designing	3 Tanks (Olumaduwa Wewa / Weheragala Wewa / Alisthana Wewa)	3 Tanks (Goonapaniella Wewa / Bogahadamana Wewa / Kethigannewa Wewa)	3 Tanks (Mailankulama Wewa / Bogaha Wewa / Irigeoya Wewa)	2 Tanks (Thumbikulama Wewa / Kudawewa)	Maintenance of Tank Bund	Maintenance of Tank Bund
		b) Ecological restoration of selected 5 tanks (Halmillawa wewa, Ritiko wewa, Paburugas wewa, Pandithaya wewa, Etaweera wewa Buffer zone at Riitigala SNR)	7,900,000.00	First Priority	*Ground Identification and GIS mapping *Preperation of Estimate and MOU	Establishment of Gasgommana and Kattakaduwa	First Maintenance	Second Maintenance	Third Maintenance	Forth Maintenance	
6.5.2	Management of invasive species	a) Eradication/Control of invasive flora species and native species undergoing range expansions Lantana Camara 200 - Galapitagala Conservation Forest 100 - Huruluwewa Forest Reserve Ha. 200 - Elahera Forest Reserve Ha. 200 - Hurulu Conservation Forest Mimosa Pigra Ha. 10 - Elahera DWC Sanctuary Anuradhapura FD Pollonnaruwa FD Division	800,000.00	First Priority This item also included signed MoU	Survey and preperation of maps of invasive plant spreaded areas -	Mimosa Pigra Ha. 10 - Elahera DWC Sanctuary	Lantana Camara Ha. 200 - Elahera Forest Reservoir	Lantana Camara Ha. 150 - Hurulu Conservation Forest	Lantana Camara Ha. 150 - Galapitagala Conservation Forest	Lantana Camara Ha. 100 - Huruluwewa Forest Reservoir	Lantana Camara Ha. 50 - Galapitagala Conservation Forest Ha. 50 - Hurulu Conservation Forest
		b)Management of IAS Elahera DWC Sanctuary Kaluganga Project Area, Mahakanadarawa Sanctuary, Eruwewa, Manankattiyawewa, Huruluwewa	14,500,000.00	First Priority	Awareness program for Introduce a biological control programme for Salvinia and Eicchomia	Establish an inspector to raise insects release Training for the farmers	Elahera DWC Sanctuary Kaluganga Project Area	Mahakanadarawa Sanctuary	Eruwewa	Manankattiyawewa	Huruluwewa
6.6.2	Implementing a rescue program to translocate /transplant identified animal and plant species.	Rescue of priority planta and animal species (specified in and any table 37 & table 38 other relevant spp) Colloction of fauna and flora specimens to be deposited in the relevant agencies.	9,000,000.00	First priority							
6.7	HEC Mitigatory measures to be implemented in areas impacted by the UECF	Set up a beat DWC office at Kitul Uttuwa beat and Mahakanadarawa sanctuary	17,280,000.00	First Priority	Awareness Program of DWC staff and Preperation of BOQ	Construction of Kitul Uttuwa beat office	Construction of Mahakanadarawa sanctuary DWC beat office	DWC provide 6 new staff positions	DWC Maintain ofiice and staff	DWC Maintain office and staff	DWC Maintain ofiice and staff
		Radio collar 20 female and 10 male elephants	15,840,000.00	Responsibility - PMU First Priority		05	05	05	05	05	05
		Establish elephant corridor 1 - 10 identified by DWC and FD Elahera 12 Mile Post - Moragahakanda (DWC) Manankattiya - Labunoruwa (Bathalayaya) (FD) Ritigala - Labunoruwa (Unagollewa) - FD Thumbikulama - Murungahitikanda (Thibalawagamameda) (FD) Innamaluwa - Digampathaha (DWC) Hurulu Thumbikulama (Model Elephant Corridor) (FD) Minneriya - Rathmale (DWC) Hurulu Halmillewa (Halmillewa Village) (FD) Hurulu - Galapitagala (Weragala) (FD) Habarana - Hiriwadunna (Unagolla - Thumbikulama) (FD)	46,770,000.00	First Priority	Consultative meetings with stakeholders including ID, DAD, DWC, FD, CG	Establishment of Model Elephant Corridor *Hurulu Thumbikulama (Model Elephant Corridor) (FD)	Elahera 12 Mile Post - Moragahakanda (DWC)	Innamaluwa - Digampathaha (DWC)	Minneriya - Rathmale (DWC)	*Habarana - Hiriwadunna (Unagolla - Thumbikulama) (FD) *Hurulu Halmillewa (Halmillewa Village) (FD) *Hurulu - Galapitagala (Weragala) (FD)	*Manankattiya - Labunoruwa (Bathalayaya) (FD) *Ritigala - Labunoruwa (Unagollewa) - FD

The Budget and Implementation Schedule of Priority Actions of Wildlife Managenent Master Plan of UECP under the allocated ADB Funds (PAP-WMP-UECP)											
WMP Ref. No	Main Objctives	Activity	Estimate/LKR	Priority	Years						
					2019	2020	2021	2022	2023	2024	2025
		Develop and implement awareness programme	10,000,000.00	First Priority	Awareness Program for stakeholders including Government Officers, School Childrens, Farmer Organizations, NGOs and relevant Community	Conduct by UEC Project Area	Conduct by UEC Project Area	Conduct by UEC Project Area	Conduct by UEC Project Area	Conduct by UEC Project Area	Conduct by UEC Project Area
Total			154,244,160.00								

The Budget and Implementation Schedule of Non Priority Actions of Wildlife Management Master Plan of UECP											
WMP Ref. No	Main Objectives	Activity	Estimate/LKR	Priority	Years						
					2019	2020	2021	2022	2023	2024	2025
6.5.4	Annexing identified areas to existing Pas	Annexing a 12 km ² area to Mahakanadarawa Sanctuary, declaring Eru Wewa and Manankattiya as new sanctuaries. It will add 23 km ² area to PA network.	3,000,000.00	Second Priority	Surveying the area to identify land ownership	Preparation of GIS maps and Boundary Demarcation	Manankattiyawewa Project Area	Eruwewa Project Area	Eruwewa Project Area	Mahakanadarawa Project Area	Mahakanadarawa Project Area
		Annexing 54.79 km ² to forest reserves managed by the Forest Department			Kekirawa FD Range Area	Kahatagasdigiya FD Range Area	Anuradhapura FD Range Area	Kekirawa FD Range Area	Kahatagasdigiya FD Range Area	Anuradhapura FD Range Area	Anuradhapura FD Range Area
6.7.	HEC Mitigatory measures to be implemented in areas impacted by the UECP	Set up a dedicated unit in the PMU to coordinate and implement the HEC management measures	15,000,000.00	Responsibility - PMU							
		Limit cultivation of paddy fields to two seasons	100,000.00	Responsibility - PMU	Consultative meetings with DI and Agrarian Service Department	Awareness meeting of inform and get the consent from the community	Eruwewa project area	Manankattiya project area	Mahakanadarawa project area	Huruluwewa project area	Huruluwewa project area
		Establish reservoir water management regiment to maximise reservoir bed grasslands in dry season	300,000.00	Responsibility - PMU		Consultative meetings with DI. PID and Agrarian Service Dept.	Awareness meeting for farmer organization	Awareness meeting for farmer organization	Monitoring and Evaluation	Monitoring and Evaluation	Monitoring and Evaluation
		Establish additional elephant corridors and habitat linkages identified from new radio tracking data	75,200,000.00	Second Priority		Consultative meetings with stakeholders including ID, DAD, DWC, FD, CGR	Kaluganga Project area	Elahera Project Area	Huruluwewa Project Area	Eruwewa - Manankattiya Project Area	Mahakanadarawa Project Area
		Declare elephant habitat as FD reserves	5,000,000.00	Second Priority		Identify any Forest patches in the UECP area under the FD and preparation of GIS map	Huruluwewa project area	Manankattiya Project Area	Eruwewa Project Area	Mahakanadarawa Project Area	Elahera Project Area
		Declare as FD /DWC reserves any additional forest patches identified from new radio tracking data as critical habitats for elephants	67,900,000.00	Second Priority		Consultative meeting with stakeholders including DWC, FD, RDA, CGR, NGO and farmer organization	Palugaswewa and Hingurakgoda DS Office area	Galenbidunuwewa and Kahatagasdigiya DS Office Area	Thirppane and Mihinthale DS Office Area	Kekirawa and Rambewa DS Office Area	Dambulla and Elahera - Bakamoona DS Office Area
		Regulate chena cultivation	440,000.00	Second Priority		Workshop with FD, ESCAMP, DWC, DSD, Elephant experts, NGOs to develop regulatory structure and mechanism	Huruluwewa project area	Manankattiya project area	Eruwewa Project Area	Mahakanadarawa Project Area	Palugaswewa and Kekirawa DS Office area
		Declare elephant range as MER under the DWC	300,000.00	Second Priority		Identify elephant range based on new radio tracking data	Identify elephant range based on new radio tracking data	Identify elephant range based on new radio tracking data	HEC expert with prior experience to analyse the data and identify areas suitable to be manage as MER in collaboration with DWC	HEC expert with prior experience to analyse the data and identify areas suitable to be manage as MER in collaboration with DWC	HEC expert with prior experience to analyse the data and identify areas suitable to be manage as MER in collaboration with DWC
		Establish seasonal paddy field fencing programme through DAD	29,140,000.00	Second Priority		Consultative meetings with DAD, ESCAMP, NGOs to develop framework	Establish seasonal paddy field fencing programme through Matale District Project area	Establish seasonal paddy field fencing programme through Pollonnaruwa District Project area	Establish seasonal paddy field fencing programme through Anuradhapura District Project area	Monitoring and maintenance program	Monitoring and maintenance program
		Establish permanent fencing programme around villages through DS		Second Priority		Consultative meeting with	Establish seasonal paddy field fencing	Establish seasonal paddy field fencing	Establish seasonal paddy field fencing	Monitoring and maintenance	Monitoring and maintenance

The Budget and Implementation Schedule of Non Priority Actions of Wildlife Management Master Plan of UECP											
WMP Ref. No	Main Objectives	Activity	Estimate/LKR	Priority	Years						
					2019	2020	2021	2022	2023	2024	2025
			29,890,000.00			District Secretaiat, DS, Disaster management Dept, Civil Security Dept, ESCAMP, NGOs, to develop framework, implementation mechanism and management plan including monitoring) for implementation through DS	programme through Matale District Project area	programme through Pollonnaruwa District Project area	programme through Anuradhapura District Project area	program	program
		Develop and implement insurance scheme for crop damages caused by elephants	300,000.00	Second Priority		Consultative meetings with insurance companies to develop scheme, making it compulsory for the beneficiaries of the UECP area	Implementation and Monitoring HEC conflict UEC project area	Implementation and Monitoring HEC conflict UEC project area	Implementation and Monitoring HEC conflict UEC project area	Implementation and Monitoring HEC conflict UEC project area	Implementation and Monitoring HEC conflict UEC project area
Total			226,570,000.00								

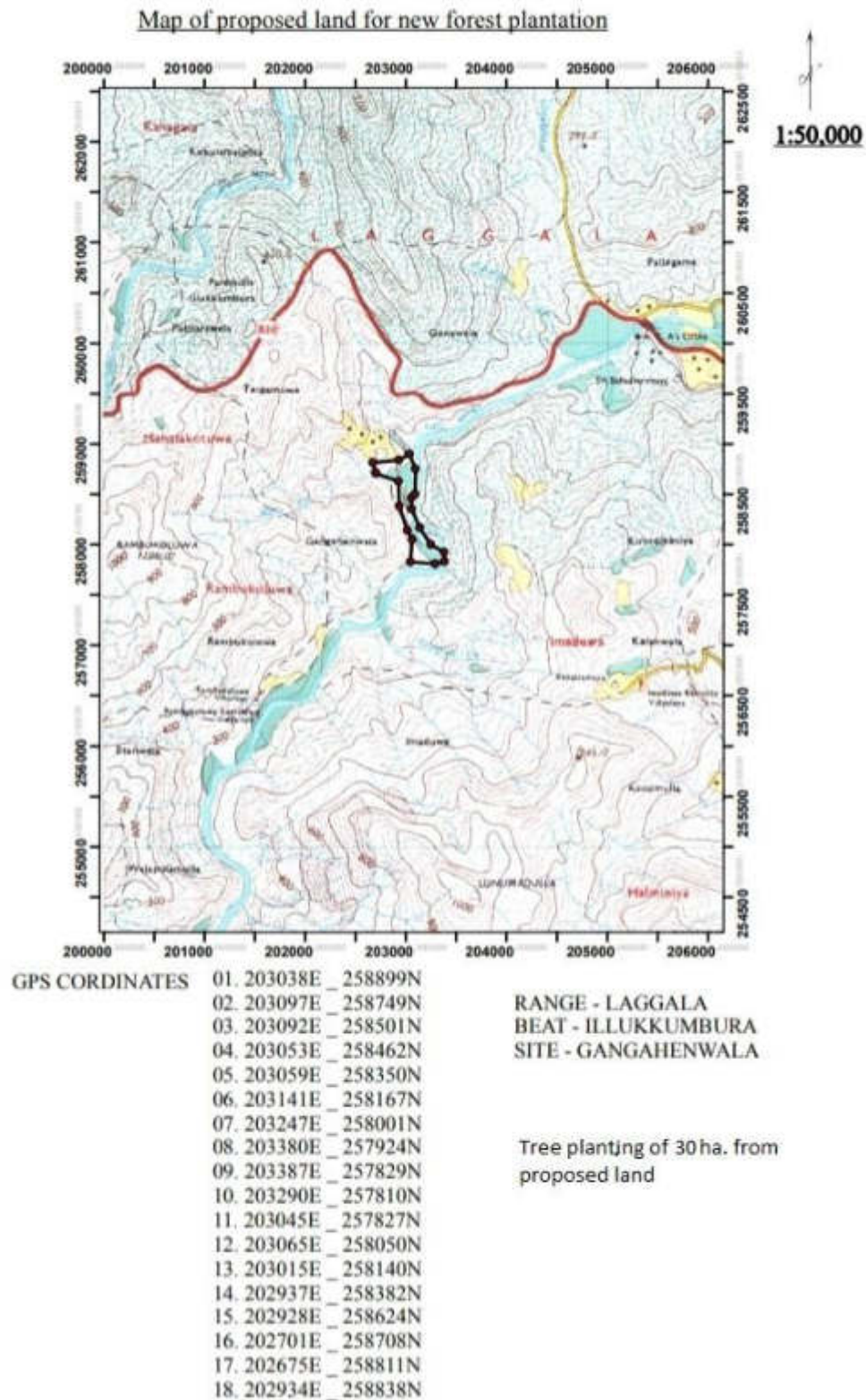


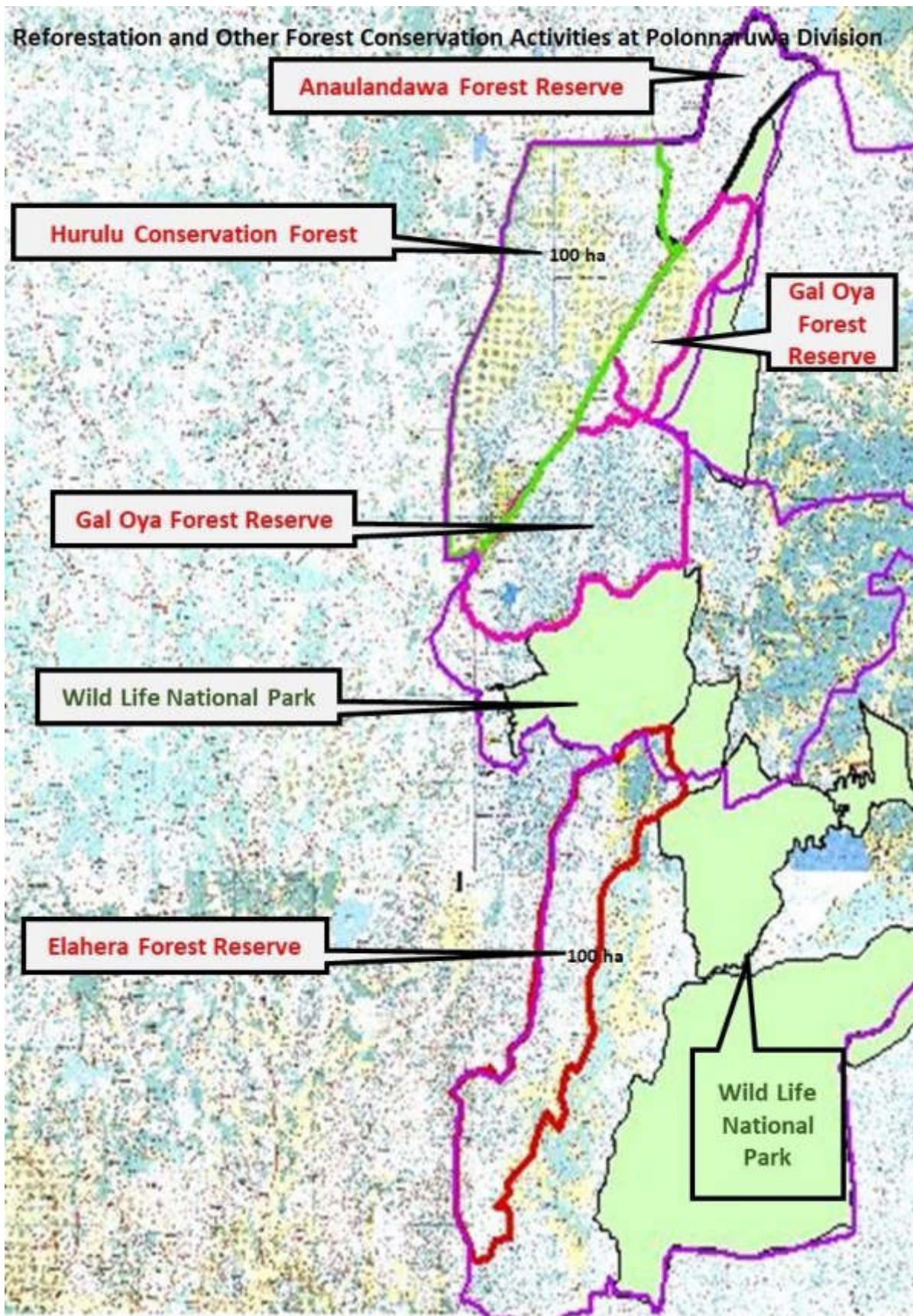
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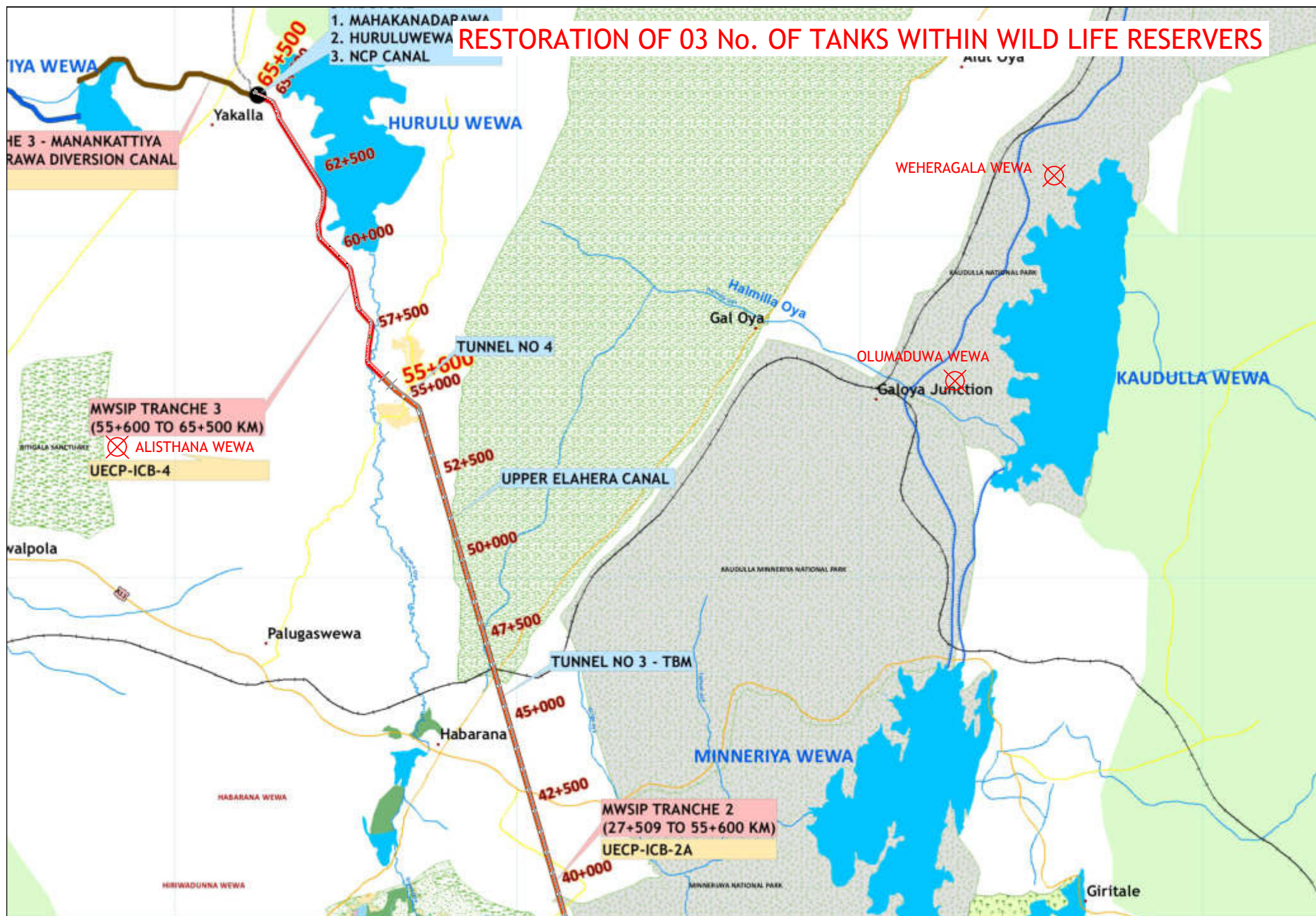
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FFA Division - Flagamuwu
 Beat - Kongahawela
 Range - Naula
 District - Mathale

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 District Forest Officer







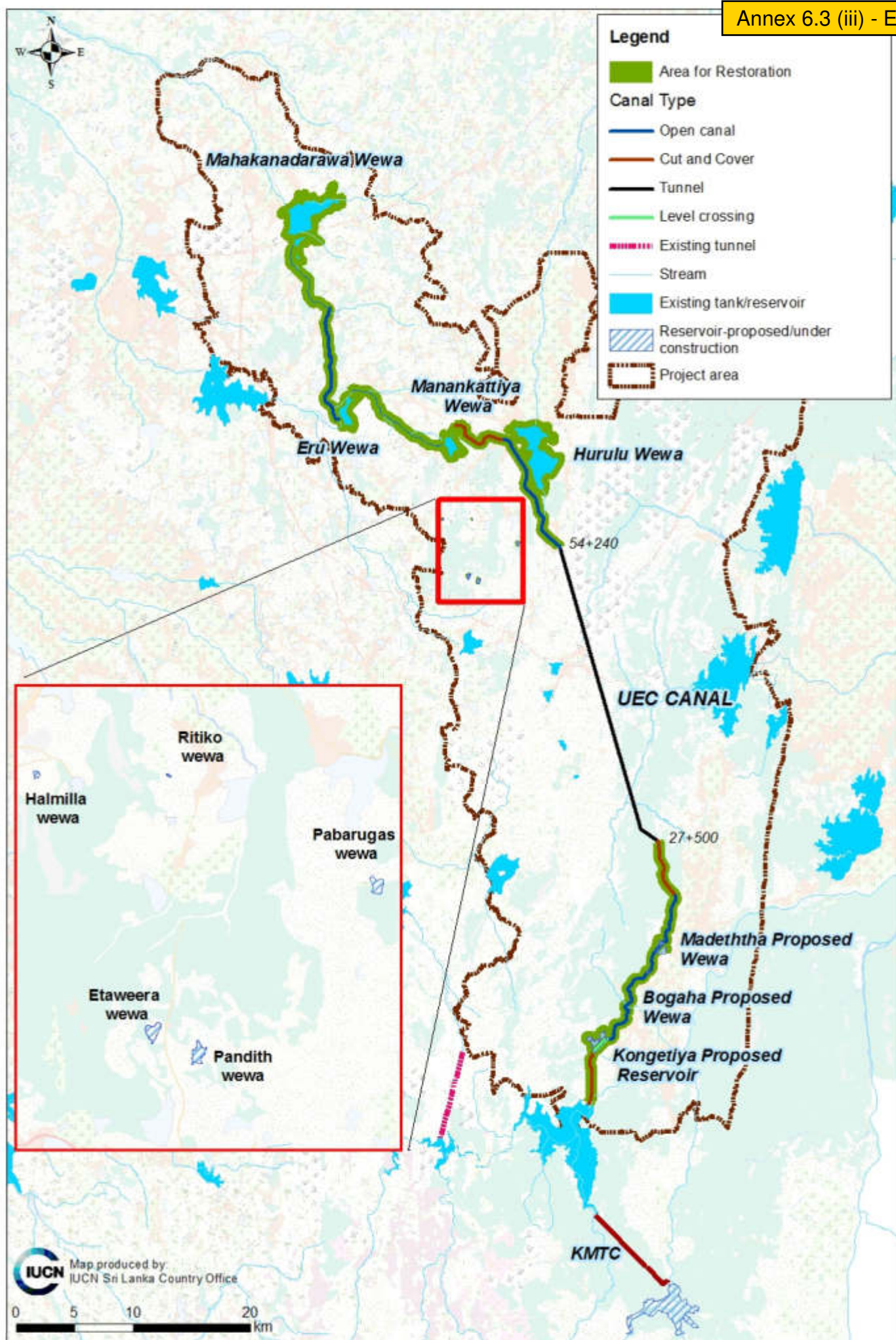


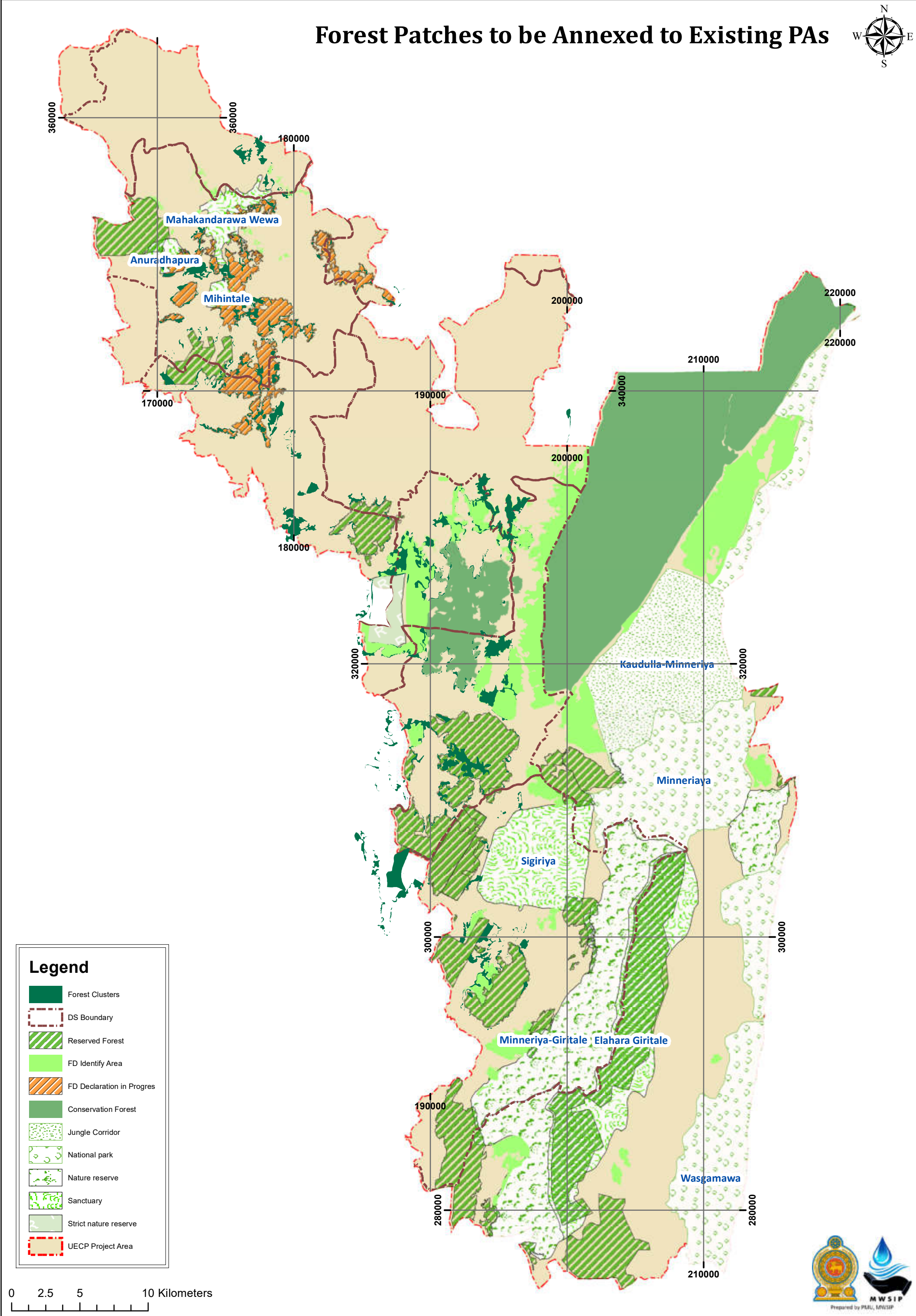
Figure 88. Map of areas that need restoration

Forest Patches to be Annexed to Existing PAs

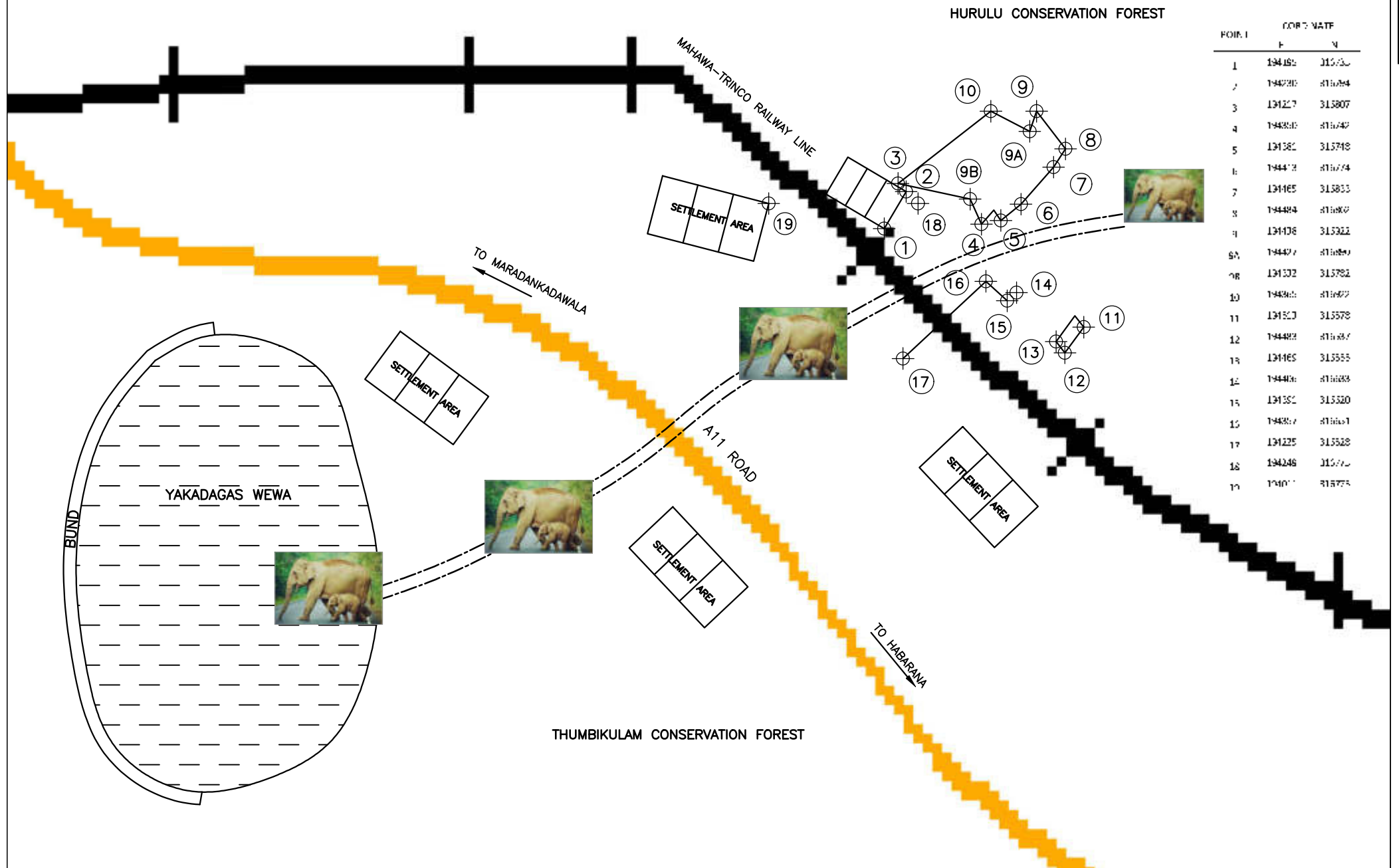


Legend

- Forest Clusters
- DS Boundary
- Reserved Forest
- FD Identify Area
- FD Declaration in Progres
- Conservation Forest
- Jungle Corridor
- National park
- Nature reserve
- Sanctuary
- Strict nature reserve
- UECP Project Area



PROPOSED MODEL ELEPHANT CORRIDOR AT HURILU-THUMBIKULAM



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දිනය - 2020.02.25

වේලාව - පෙ.ව 10.00 - ප.ව 1.00

ස්ථානය - මහවැලි ජල සුරක්ෂිතතා ආයෝජන වැඩසටහන
සහභාගීත්වය

අංකය	නම	තනතුර හා ආයතනය
1	කේ. ආර්. නිල් බණ්ඩාර	ව්‍යාපෘති අධ්‍යක්ෂ/ ව්‍යාපෘති කළමනාකරණ ඒකකය මහවැලි ජල සුරක්ෂිතතා ආයෝජන වැඩසටහන
2	ජී.ඒ. කිත්සිරි	අතිරේක දිස්ත්‍රික් ලේකම් (සංවර්ධන/ ඉඩම්), කුරුණෑගල දිස්ත්‍රික් ලේකම් කාර්යාලය
3	ජී.ඩී. කීර්ති ගමගේ	අතිරේක දිස්ත්‍රික් ලේකම් (සංවර්ධන/ ඉඩම්), අනුරාධපුර දිස්ත්‍රික් ලේකම් කාර්යාලය
4	ඩබ්ලිව්.ජී.ඩබ්ලිව්. වනසිංහ	අතිරේක දිස්ත්‍රික් ලේකම් (සංවර්ධන/ ඉඩම්), පොළොන්නරුව දිස්ත්‍රික් ලේකම් කාර්යාලය
5	ඩී.එච්.එස්. කුමාරසිරි	වන සංරක්ෂක, වන විද්‍යා හා වන කළමනාකරණ අංශය, වන සංරක්ෂණ දෙපාර්තමේන්තුව
6	මංජුල අමරරත්න	අධ්‍යක්ෂක (මෙහෙයුම්), වනජීවි සංරක්ෂණ දෙපාර්තමේන්තුව
7	ආර්.අයි. ජයසිංහ	වාරිමාර්ග ඉංජිනේරු, වාරිමාර්ග දෙපාර්තමේන්තුව
8	ප්‍රසාද් රණතුංග	සහකාර කොමසාරිස්, ගොවිජන සංවර්ධන දෙපාර්තමේන්තුව
9	පී.ජී.ඩී.ජේ. පැබ්බාටුව	සංරචක සම්බන්ධීකාරක(2b)/ පරිසර පද්ධති සංරක්ෂණ හා කළමනාකරණ ව්‍යාපෘතිය. (ප.ප.සං. ව්‍යාපෘතිය)
10	එම්. කිරුපාමුර්ති	නියෝජ්‍ය අධ්‍යක්ෂ (කෘෂිවිද්‍යා), ඉඩම් පරිහරණ ප්‍රතිපත්ති සැලසුම් දෙපාර්තමේන්තුව
11	මහාචා. දේවක වීරකෝන්	සෞභාදහම් සහ ස්භාවික සම්පත් සංරක්ෂණය සඳහා වූ ජාත්‍යන්තර සංගමය IUCN
12	සම්පත් ගුණතිලක	IUCN
13	සී. රූපසිංහ, පරිසර	පරිසර අධිකාරිය
14	ශාන්ත ධර්මසිරි	වනජීවි කළමනාකර සැලැස්ම- ඉහළ ඇළහැර ඇළ ක්‍රියාත්මක කිරීමේ නිලධාරී
15	එම්.එච්. වික්‍රමසේන	වනජීවි කළමනාකර සැලැස්ම - වයඹ පළාත් ඇළ ක්‍රියාත්මක කිරීමේ නිලධාරී
16	රෝහණ තෙන්නකෝන්	ජ්‍යෙෂ්ඨ පරිසර නිලධාරී, වයඹ පළාත් ඇළ ව්‍යාපෘතිය
16	පද්මසිරි මුනුබුරු	පරිසර විශේෂඥ/ මහවැලි ජල සුරක්ෂිතතා ආයෝජන වැඩසටහන (ම.ජ.සු.ආ.වැ)
17	ඒ.එච්.සුමනසේන	ජාතික සම්බන්ධීකාරක/ වනජීවි කළමනාකරණ සැලසුම ක්‍රියාත්මක කිරීම- (ම.ජ.සු.ආ.වැ)

1. සාකච්ඡා සටහන් :

- I. පළමුව පැමිණ සිටි සියලුදෙනා මහවැලි ජල සුරක්ෂිතතා ආයෝජන වැඩසටහන් අධ්‍යක්ෂකතුමා විසින් පිළිගන්නා ලදී.
- II. වයඹ පළාත් ඇළ හා ඉහළ ඇළහැර ඇළ ව්‍යාපෘතිය යටතේ ක්‍රියාත්මක කරනු ලබන වනජීවී කලමනාකරණ සැලසුම් පහත සඳහන් කරුණු කෙරෙහි විශේෂ අවධානය යොමු කරමින් පරිසර විශේෂඥ පද්මසිරි මුණමලේ මහතා විසින් ඉදිරිපත්කරන ලදී.

- වයඹ පළාත් ඇළ සහ ඉහළ ඇළහැර ඇළ ව්‍යාපෘති බල ප්‍රදේශය තුළ අලි මිනිස් ගැටුම අවම කිරීම සඳහා සකස්කරන ලද වනජීවී කලමනාකරණ සැලැස්ම
- වනජීවී කලමනාකරණ සැලැස්ම ක්‍රියාත්මක කිරීමේදී අනුගමනය කරනු ලබන මූලික පියවරයන් හා මූල්‍ය කටයුතු සිදුවන ආකාරය.
- වනජීවී කලමනාකරණ සැලසුම් ක්‍රියාවට නැංවීමේදී ඇති වූ මූල්‍ය සීමාවන් හේතු කොටගෙන ප්‍රමුඛතාගත කරන ලද වනජීවී කලමනාකරණ සැලසුම්
- වනජීවී කලමනාකරණ සැලසුම් ක්‍රියාවට නැංවීමේ යාන්ත්‍රණය.
- 2019 වර්ෂය තුළ වනජීවී කලමනාකරණ සැලසුම් වලට අදාළ ප්‍රගතිය
- වනජීවී කලමනාකරණ සැලසුම් ක්‍රියාවට නැංවීමේදී මතුවී ඇති ගැටලු

තවද පාර්ශ්වකාර ආයතන හා එම නිලධාරීන්, වනජීවී කලමනාකරණ සැලසුම් ක්‍රියාත්මක කිරීමේදී අවශ්‍යය උපදේශනයන් හා මගපෙන්වීම් සඳහා වූ ජාතික ප්‍රගති සමාලෝචන කමිටුව ලෙස ස්ථාපනය කරන ලදී.

මෙම කමිටුව පහත සඳහන් ක්ෂේත්‍රයන්ට අදාළ වගකීම් දරණු ඇත.

1. වනජීවී කලමනාකරණ සැලසුම් සඳහා එකඟතාවය ලබාදීම හා අදාළ ප්‍රගති සමාලෝචනය කිරීම
2. වනජීවී කලමනාකරණ සැලසුම් යාවත්කාලීන කිරීමට අදාළ උපදෙස් ලබාදීම
3. ප්‍රදේශීය මට්ටමෙන් ඇතිවන ගැටලු ඉහළ කලමනාකරණය වෙත ඉදිරිපත් කොට විසඳුම් ලබාදීම
4. වනජීවී කලමනාකරණ සැලසුම් ක්‍රියාවට නැංවීමේදී ඇතිවිය හැකි තාක්ෂණික ගැටලු නිරාකරණය සඳහා අවශ්‍යය උපදෙස් ලබාගැනීම

අංකය	එළැඹී තීරණ	වගකීම
01	<p>වන සත්ව හා වෘක්ෂලතා ආරක්ෂණ ආඥා පනත/ වන ආඥා පනත යටතේ මෙතෙක් ප්‍රකාශයට පත් වී නොමැති වනාන්තර කොටස් එම ආඥා පනත් යටතේ ප්‍රකාශයට පත්කර ප්‍රධාන රක්ෂිතයට ඒකාබද්ධ කිරීම .</p> <p>මේ වන විට මෙම වනාන්තර කොටස් හඳුනාගෙන සිතියම්ගත කර ඇත. එම වනාන්තර පිළිබඳව පහත සඳහන් ක්‍රියාමාර්ග අනුගමනය කිරීමට කමිටුව තීරණය කරන ලදී</p> <ul style="list-style-type: none"> • මෙම වනාන්තර කොටස් වල භාරකාරත්වය හඳුනාගැනීම. • වනාන්තරවල පිහිටීම දැක්වෙන GPS කණ්ඩාංක ලබාගැනීම. • අදාළ ආඥා පනත් යටතේ ප්‍රකාශයට පත්කිරීම 	<p>වැඩසටහන් කලමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ වනජීවී සං. දෙ./ වන සං. දෙ./ ව්‍යාපෘති අධ. (ව.ප.ඇ/ ඉ.ඇ.ඇ</p>

<p>02</p>	<p>වනඅලි පිවිසුම් මාර්ග ස්ථාපනය කිරීම</p> <p>වයඹ පළාත් ඇළ ව්‍යාපෘතියේ අලි පිවිසුම් මාර්ග 2ක් ස්ථාපිත කිරීම සඳහා හඳුනාගෙන ඇති අතර ඉහළ ඇළහැර ඇළ ව්‍යාපෘති බල ප්‍රදේශය තුළ අලි පිවිසුම් මාර්ග 8ක් ස්ථාපිත කිරීමට නියමිතය. අලි පිවිසුම් මාර්ග ස්ථාපිත කිරීමේදී ඒ සඳහා අවශ්‍යය ඉඩම් පවරා ගත යුතුව ඇත. එම ඉඩම් පවරා ගැනීම අදාළ පාර්ශවකාර රාජ්‍ය ආයතන වලින් හා ඊට අදාළ සම්බන්ධීකරණයන් ම.ජ.සු.ආ.වැ. මගින් සිදුකිරීම.</p> <p>ඉහළ ඇළහැර ඇළ ව්‍යාපෘතියේ, හුරුළු තුම්බිකුලම වන අලි පිවිසුමට අදාළ ඉඩම් මැනීම අනුරාධපුර දිස්ත්‍රික් ලේකම් කාර්යාලයට අනුබද්ධ රජයේ මිනින්දෝරු විසින් සිදුකර ගැනීම සඳහා ප්‍රාදේශීය ලේකම් පලුගස්වැව විසින් ප්‍රාදේශීය ලේකම් අනුරාධපුර වෙත ඉල්ලීම ලිපියක් යොමු කිරීම.</p> <p>ඉඩම් අත්පත් කරගැනීමට නොමැති වනඅලි පිවිසුම් GPS බණ්ඩාංක යොදාගනිමින් වන සත්ව හා වෘක්ෂලතා ආඥා පනත යටතේ සුදුසු රක්ෂිතයක් ලෙස ප්‍රකාශයට පත්කිරීම.</p> <p>අලි පිවිසුම් මාර්ග 01- වයඹ පළාත් ඇළ ව්‍යාපෘතිය</p> <p>මෙම වන අලි පිවිසුම් මාර්ගය ස්ථාපනය කිරීම සම්බන්ධයෙන් ප්‍රාදේශීය පරිපාලනය, ප්‍රාදේශීය දේශපාලන අධිකාරිය හා ජනතා විරෝධය පැනනැගී ඇති බැවින් එම අලි පිවිසුම් මාර්ගය ස්ථාපනය කිරීමට නොහැකි වී ඇති බව කමිටුව වෙත දැනුම්දෙන ලදී.</p> <p>කෙසේ වුවද මෙම අලි පිවිසුම් මාර්ගය අනිවාර්යෙන්ම ස්ථාපිත කළයුතු බව වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුවේ තීරණය විය. එබැවින් වයඹ පළාත් ඇළ ව්‍යාපෘතිය යටතේ ස්ථාපිත කිරීමට නියමිත අලි පිවිසුම් මාර්ග සම්බන්ධයෙන් දිස්ත්‍රික් ලේකම් කුරුණෑගල හා අනෙකුත් නිලධාරීන් මෙන්ම දේශපාලන අධිකාරිය සමග සාකච්ඡාවක් පැවත්වීමට තීරණය විය.</p> <p>ඒ අනුව ව්‍යාපෘති අධ්‍යක්ෂ වයඹ පළාත් ඇළ විසින් රැස්වීමක් සංවිධානය කිරීම</p>	<p>වනජීවී සං. දෙ./ වන සං. දෙ./ දි.ලේ./ වැඩසටහන් කලමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ.)</p> <p>ව්‍යා.අ. ඉහළ ඇළහැර</p> <p>ව්‍යාපෘති අධ. (ව.ප.ඇ/ ඉ.ඇ.ඇ)/ වනජීවී සං. දෙ./ වන සං. දෙ.</p> <p>වැඩසටහන් කලමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ වනජීවී සං. දෙ./ ව්‍යා.අ. වයඹ පළාත් ඇළ</p>
<p>03</p>	<p>වනඅලි රේඛීයෝ කර පටි</p> <p>GSM තාක්ෂණය යොදාගනිමින් මොරටුව විශ්වවිද්‍යාලයේ විදුලි සංදේශණ අධ්‍යයනාංශය විසින් වන අලින්ගේ සංවර්ත රටා හඳුනාගැනීම පිණිස GPS කරපටි සැලසුම් කොට නිර්මාණය කිරීම, කමිටුව විසින් පැසසුමට ලක් කළ අතර එම කාර්යය මොරටුව විශ්ව විද්‍යාලය මගින් ඉටුකර ගැනීමට කමිටුව විසින් නිර්දේශ කරන ලදී.</p> <p>මෙසේ නිපදවනු ලබන GPS කරපටි වයඹ පළාත් ඇළ සහ ඉහළ ඇළහැර ඇළ ව්‍යාපෘති බලප්‍රදේශ තුළ වන අලින් හට පලදවා අදාළ දත්තයන් විශ්ලේෂණය කොට වන අලින්ගේ නව සංවර්ත මාර්ග හඳුනා ගැනීම වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුව මගින් සිදුකිරීම.</p> <p>එමෙන්ම කරපටි පැලඳවීමේ කාර්යයද වනජීවී දෙපාර්තමේන්තුව මගින් සිදුකිරීමට තීරණය විය</p>	<p>වැඩසටහන් කලමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ වනජීවී සං. දෙ.</p>

04	<p>ග්‍රාමීය විදුලි වැට</p> <p>අලි මිනිස් ගැටුම කළමනාකරණය කිරීම සඳහා වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුව විසින් මේ වන විට රැගෙන ඇති ක්‍රමවේද වලට සමගාමීව මෙම වැඩසටහන ඉදිරියට ගෙනයාමට තීරණ වූ අතර ආවරණය කිරීමට සුදුසු ගම්මාන කමිටුවක් මගින් හඳුනා ගැනීම හා විදුලි වැට ඉදිකිරීම අදාළ ප්‍රාදේශීය ලේකම් වරුන්ගේ මෙහෙයවීම යටතේ ප්‍රජාමූල සංවිධාන මගින් සිදුකිරීම.</p>	<p>වැඩසටහන් කළමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ ව්‍යාපෘති අධ. (ව.ප.ඇ/ ඉ.ඇ.ඇ)/ දි.ලේ/ ප්‍රා.ලේ</p>
05	<p>වගා හානි සඳහා රක්ෂණ ක්‍රමවේදයක් ස්ථාපිත කිරීම</p> <p>මීට අදාළ ක්‍රමවේද ESCAMP ව්‍යාපෘතිය මගින් හඳුන්වාදීමට කටයුතු කරන බැවින් එම ව්‍යාපෘතිය හා ඒකාබද්ධව කටයුතු කිරීමට තීරණය විය.</p> <p>ESCamp ව්‍යාපෘතිය මගින් මේ සම්බන්ධයෙන් පැවැත්වීමට නියමිත රැස්වීම් සඳහා වැඩසටහන් කළමනාකරණ ඒකකය ආරාධනා කිරීමට එකඟ විය.</p>	<p>වැඩසටහන් කළමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ ESCamp</p>
06	<p>දැනුවත් කිරීමේ වැඩසටහන්</p> <p>වනජීවී කළමනාකරණ සැලැස්ම යටතේ හඳුනාගෙන ඇති දැනුවත් කිරීමේ වැඩසටහන්, ඉදිරියේදී වැඩසටහන් කළමනාකරණ ඒකකයේ පුහුණු සහ සංනිවේදන අංශය සමග එකාබද්ධව වැඩසටහන් කළමනාකරණ ඒකකයේ ප්‍රතිපාදන මත සිදුකිරීමට ගෙන ඇති තීරණය සඳහා කමිටුවේ එකඟතාවය පලවිය</p> <p>තවද දැනුවත් කිරීමට අදාළ වැඩසටහන් (වීඩියෝ videos , ජරලේඛණ Documentation) යනාදිය ESCAMP ව්‍යාපෘතිය සහ වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුව සමග හුවමාරු කරගැනීමට තීරණය විය.</p>	<p>වැඩසටහන් කළමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ ESCamp/ ව්‍යාපෘති අධ. (ව.ප.ඇ/ ඉ.ඇ.ඇ)</p>
07	<p>වයඹ පළාත් ඇළ සහ ඉහළ ඇළහැර ඇළ ව්‍යාපෘති වල වනජීවී කළමනාකරණ සැලසුම් යටතේ අලි මිනිස් ගැටුම අවම කිරීම සඳහා ඉදිරිපත් කරන නිර්මිතයන් හා යටිතල පහසුකම් ඉඩම් පරිහරණ සැලසුම් වලට ඇතුළත් කිරීම.</p> <p>තවද එම කටයුතු ප්‍රාදේශීය ලේකම්/ ඉඩම් පරිහරණ නිලධාරී සමඟ ඒකාබද්ධව සිදුකිරීමටද තීරණය විය.</p>	<p>වැඩසටහන් කළමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ ව්‍යාපෘති අධ. (ව.ප.ඇ/ ඉ.ඇ.ඇ)/ ප්‍රා.ලේ/ ප්‍රාදේශීය ඉඩම් පරිහරණ නිලධාරී</p>
08	<p>වයඹ පළාත් ඇළ සහ ඉහළ ඇළහැර ඇළ ව්‍යාපෘතිය යටතේ අලිමිනිස් ගැටුම අවම කිරීම සඳහා වැඩිදියුණු කරන යටිතල පහසුකම් හා ඊට අදාළව පැන නගින ගැටලු සමාලෝචනය කරමින් යාවත්කාලීනව පවත්වාගෙන යාම සඳහා ප්‍රාදේශීය පරිපාලනය සහ දේශපාලන අධිකාරියේ ප්‍රධානත්වයෙන් යාන්ත්‍රණයක් සකස්කොට පවත්වාගෙන යාම.</p>	<p>වැඩසටහන් කළමනාකරණ ඒකකය (ම.ජ.සු.ආ.වැ)/ ව්‍යාපෘති අධ. (ව.ප.ඇ/ ඉ.ඇ.ඇ)/ දි.ලේ/ වනජීවී සං. දෙ./ වන සං. දෙ./ වාරි.දෙ/ ගො.ස.දෙ ඇතුලු අනෙකුත් පාර්ශවකාර ආයතන</p>

Annex 6.4 - Participatory sessions for WMP implementation

No	Date	Activity	Place	Decision taken	Photos
1	2019.05.28	Regional Review Committee meeting on the implementation of Wildlife Management & HEC Mitigation Action Plan- UECP	Habarana	Approval for the revised Wildlife Management & HEC Mitigation Action Plan	
2	2019.07.04	Consultative Committee Meeting on the establishment of elephant corridors	DS's Office Palugaswe wa	Consent for the establishment of Hururlu - Thumbikulama model elephant corridor.	

8	2020.02.25	National Review Committee Meeting on the implementation of WMP	PMU-MWSIP Conference room	<p>Committee Approved:</p> <p>a. WM & HEC Mitigation Action Plans for NWPCP/UECP</p> <p>b. Budget & Implementation Institutional & Fund disbursement Methodology</p> <p>c. Prioritize WM & HEC Mitigation Action Plans for NWPCP/UECP</p> <p>d. Implementation & Monitoring Institutional Mechanism of WMP under MWSIP</p> <p><i>Annex I; Minutes of the meeting</i></p>	 
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Annex 7

Letter issued by GSMB confirming that Tunnel vibration is within the standard limits



භූ විද්‍යා සමීක්ෂණ හා පතල් කායසිංශය புவிச்சரிதவியல் அளவை சுரங்கங்கள் பணியகம் GEOLOGICAL SURVEY & MINES BUREAU

නො. 569, විපිටමුල්ල පාර,
පිටකෝට්ටේ, ශ්‍රී ලංකා.

இல. 569, எப்பிட்டமுல்ல வீதி,
பிடகோட்டே, இலங்கை.

No. 569, EPITAMULLA ROAD,
PITAKOTTE, SRI LANKA.

Our Ref: DMS/ 20/EX/033

Your Ref: UECP/PD/KMTC/01

04-03-2020

Project Director,
Upper Elahera Canel Project-ICB 1 & 2B,
Mahaweli Water Security Investment Program

DPD
PR ~~inform~~
to P/s & D/s
P
12/3



Subject: Make aware the public on the effect of rock blasting activities to the neighboring residences from Kalugaha moragahakanda transfer canal project

This refers to your letter UECP/PD/KMTC/01 dated 07/01/2020 on the above subject; I would hereby submit the technical clarification for your kind consideration.

Accordingly Director Mines Safety and Senior Mining Engineer have conducted two test blasts on 11th February 2020 inside two tunnels and their blast induced ground vibration & air blast over pressure was measured at complainer's house including the temple-Sri Vishuddharamaya, Leloya. Neither of those values was detected by the instrument (Blast Mate III). Minimum reading of the instrument (trigger level) was set to 0.5mm/s and 100dB as blast induced ground vibration and air blast over pressure respectively.

At the inception of the project, at two tunnel portals, the GSMB has conducted two test blasts and their blast induced ground vibrations and air blast over pressure values were measured at neighboring houses. It was revealed that those values were well within the permissible values promulgated by CEA. However blast induced ground vibration and air blast over pressure was continually measured at neighboring houses by an independent group for three months after first two tunnel trial blasts being conducted by the GSMB. At the very first blasts of the two tunnel portals, the air blast pressure values are the maximum. While construction of two tunnels is in progress, the effect of air blast over pressure to the neighboring houses would gradually decline.

Having being analyzed their records, the GSMB has found that none of the recorded values have exceeded maximum values declared by the CEA.

Meanwhile as, the two tunnels mentioned above are heading outward from complainers houses as well as neighboring houses, the effects due to tunnel blasts at complainer's houses including the temple gradually would decline. So it is highly unlikely that tunnel blasting activities would be affected to the nearest houses because all measured values since the inception of project up to 11th February 2020 were well within the permissible values declared by the CEA.

So it can be concluded that the fact that was highlighted by "CIA" news bulletin has no technical grounds whatsoever.



Dr. C.H.E.R. Siriwardena

Director General

Dr. C.H.E.R. Siriwardena
Director General
Geological Survey and Mines Bureau
No. 569, Epitamulla Road, Pitakotte

- Cc: 1. Divisional Secretary: Laggala
2. Project Manager: Synohydro Corporation Ltd.
3. SD (Mining)
4. Director (EIA & Regions)



ඉහළ ඇළහර ඇළ ව්‍යාපෘතිය
මෙල් භූගෝලීය කාලයේ
Upper Elahera Canal Project
(UECP – ICB 1 & 2B)



මහවැලි, කෘෂිකර්ම, වාරිමාර්ග සහ ග්‍රාම සංවර්ධන අමාත්‍යාංශය
මහාචාර්ය, භූගෝලීය, තීර්ථපාසනය මගින් සහරා වැනර්ශ්චි අමාත්‍යාංශය
Ministry of Mahaweli, Agriculture, Irrigation & Rural Development

මහවැලි ජල සුරක්ෂිතකා ආයෝජන වැඩසටහන
මහාචාර්ය තීර්ථ පාසනය මගින් මුද්‍රාණය කරන ලදී
Mahaweli Water Security Investment Program

Project Office, New Road, Guruwela, Laggala

මුද්‍රාණය කරන ලදී, පුද්ගලික, භූගෝලීය, මහාචාර්ය

මහාචාර්ය කාර්යාලය, අලුත් පාර, ගුරුවෙල, ලග්ගල

මගේ අංකය }
எனது இல } UECP/PD/KMTC/01
My No }

ඔබේ අංකය }
உமது இல }
Your No }

දිනය }
திகதி } 22/04/2020
Date }

Divisional Secretary
Divisional Secretariat,
Laggala

**CONSTRUCTION OF UPPER ELAHERA CANAL KALUGANGA — MORAGAHAKANDA
TRANSFER CANAL (KMTC) 0+000 KM TO 8+830 KM**
CONTRACT NO.: MMDE/MWSLP/ADB/UECP/LCB-2B/P47381-005-SRL/LCB/2016/026

CONTRACT PACKAGE UECP-ICB-2B

**Subject: Make aware the public on the effect of rock blasting activities to the neighbouring
residences from Kaluganga – Moragahakanda Transfer Canal project**

This has reference to Director General's – Geological Survey and Mines Bureau letter no. DMS/20/EX/033 dated 04/03/2020 on the above matter (copy is enclosed herewith).

Lately, a technical team from Geological Survey and Mines Bureau along with Director – Mines Safety and Senior Mining Engineer visited and conducted an investigation on the blasting effect to the neighbouring residences while performing blasting activities at our tunnel and made these conclusions which are elaborated in detail within the above letter.

Therefore, please make necessary arrangements to make aware the public, especially the residents in Leloya and Wellewela villages and your response in this regard is highly appreciated.

.....
Eng. D.B. Wijayaratne
Project Director,
Upper Elahera Canal Project - ICB 1 & 2B,
Mahaweli Water Security Investment Program

Copy:- Chairman (Pradeshiya Sabhawa - Laggala) -For your information please
Program Director (MWSIP) -For your information, please
Resident Engineer (PMDSC - KMTC) -For your information, please
Block Manager (System Moragahakanda - Wellewela) -For your information please
(Reference is made to your letter BM/W/TS/04 dated 11/02/2020)

File

