

Kala Wewa and Kahalle Pallekele Protected Area Complex Management Plan

2017 - 2022



Kahalle-Pallekele Protected Area
Management Plan
2017-2022



Acknowledgement

Enhancing biodiversity conservation and sustenance of ecosystem services in environmentally sensitive areas is a GEF funded project, implemented by the Ministry of Mahaweli Development and Environment and supported by UNDP with the objective of operationalizing Environmentally Sensitive Areas (ESA) as a mechanism for mainstreaming biodiversity management into development in areas of high conservation significance. The project focuses on integrating biodiversity conservation into the mix of diverse land use patterns in environmentally sensitive areas. In this context, the project supports the Department of Wildlife Conservation to effectively mitigate threats emanating from outside the protected areas and create better linkages between wider landscape management and protected areas. Accordingly, this management plan was prepared for Kahalle-Pallekele Protected Area. Already a strategic management framework is in place for KPK protected area complex. Hence, together, these key documents can bring in scientifically backed stakeholder approved management to the two most important protected areas in Kala Oya basin.

An ecologically sensitive area is tentatively defined as “Landscape/seascape with a mosaic of mixed land/marine uses that merit special management considerations on account of their high national and global significance based on biodiversity, natural and cultural features and/or ecological functions that warrants its special management in the best long-term interest of people and the environment, as it is particularly susceptible to irreversible negative impacts from mismanagement or overuse.

As a sanctuary Kahalle-Pallekele can be conserved only with participation of stakeholders as both private and government lands are present within declared area. In preparing this management plan, all stakeholders at the regional level provided their fullest support and assistance which is acknowledged first and foremost. UNDP also acknowledges Dr. S. Jayakody, consultant to production of this management plan, for timely preparation of the document. Ministry of Mahaweli Development and Environment is acknowledged for providing the support throughout the process. All the officials of Department of Wildlife Conservation both at regional and national level are acknowledged for provision of information and arranging consultations. All the stakeholders representing political authority other government ministries, departments, academia, national and international non-government conservation and civil organisations that actively participated to consultations and validation of this document are acknowledged for their support. All villagers that actively participated to consultative meetings are acknowledged for their support and enthusiasm.

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List of abbreviations

B & B	Bed and breakfast
BDS	Biodiversity Secretariat
CBO	Community Based Organizations
CEA	Central Environment Authority
CEB	Ceylon Electricity Board
CSD	Civil Services Department
DA	Department of Agriculture
DAD	Department of Agrarian Development
DAr	Department of Archeology
DCC	District Coordinating Committee
DEd	Department of Education
DFAR	Department of Fisheries and Aquatic Resources
DG	Director General
DI	Department of Irrigation
DMC	Disaster Management Centre
DoSW	Department of Social Welfare
Dis.S	District Secretariat
DS	Divisional Secretariat
Dsu	Department of Survey
DWC	Department of Wildlife Conservation
EAM	Ecosystem Approach to Management
EIA	Environmental Impact Assessment
ESA	Environment Sensitive Areas
FD	Forest Department
FFPO	Fauna and Flora Protection Ordinance
FS	Fisheries Societies
GSMB	Geological Survey & Mines Bureau
HAC	Human Animal Conflict
HEC	Human Elephant Conflict
IUCN	International Union for the Conservation Nature

KPK	Kahalle Pallekele
KW	Kala Wewa
M & E	Monitoring & Evaluation
MASL	Mahaweli Development Authority of Sri Lanka
MER	Managed Elephant Reserve
MoF	Ministry of Finance
MoMDE	Ministry of Mahaweli Development and Environment
MoSDW	Ministry of Sustainable Development and Wildlife
MOU	Memorandum of Understanding
NAQDA	National Aquaculture Development Authority
NARA	National Aquatic Resources Research and Development Agency
NCP	North Central Province
NCPCP	North Central Province Canal Project
NHD	National Housing Developmental Authority
NLDB	National Livestock Development Board
NP	National Park
NWP	North Western Province
NWPC	Northwestern Province Canal
PAC	Protected Area Complex
PEA	Provincial Environment Authority
RDA	Road Development Authority
RPIC	Regional Project Implementation Committee
SLTDA	Sri Lanka Tourist Development Authority
SLP	Sri Lanka Police
STC	Sri Lanka Timber Corporation
UNDP	United Nations Development Programme
WB	Water Board

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Executive summary

Kahalle-Pallekele sanctuary was declared on 11th July 1989 and at the time of declaration, a total of 21,690 ha of land stretching to the administrative districts of Kurunegala and Anuradhpura encompassed the sanctuary. At the time of preparation of this management plan, a new gazette has been forwarded to parliament to declare Kala Wewa and Balalu Wewa reservoirs and their catchment as a national park. Hence, part of the original sanctuary will be a national park. Several traditional villages lying within the sanctuary were excluded at the time of declaration. However, several more traditional villages lie within the sanctuary boundary. This sanctuary protects two mountains, Kahalle and Palle which are important catchments of three rivers, Kala Oya, Mee Oya and Deduru Oya. Additionally, several archaeological sites and ancient reservoir systems are present throughout the sanctuary and in periphery, providing evidence that this area has been in use by humans for agricultural, dwelling and religious purposes. Well established migratory routes of elephants crisscross the system and in recent years, human elephant conflict has been at its peak in this area. The biological diversity of this sanctuary is very high for both vertebrates and invertebrates. Since declaration, land grab leading to blocking of migratory routes and destruction of natural water flow has been a major threat. At present Department of Wildlife Conservation (DWC) has no record on the extent of land grab. Agriculture is the main income of communities and some are engaged in fishing. Several irrigational developments initiated by Mahaweli Development Authority of Sri Lanka (MASL) has changed the landscape, water flow and water storage and commanding areas of reservoirs within the sanctuary. New irrigational developments such as North Western Province Canal (NWPC) under new Mahaweli developments are in operation now. The electric fences erected in sanctuary needs redesigning and re-erecting in some locations as elephants are found in both sides of electric fences leading to crop and property damage, human deaths and death of wild elephants.

This management plan was prepared using Ecosystem Approach to Management (EAM) model (Staples & Funge-Smith, 2009). Accordingly, a consultative process was used and all stakeholders from grass root level to policy makers were contacted and were invited to stakeholder meetings. Methodologies suggested by EAM approach namely Matrix analysis, Venn Diagrams and snowballing were used in identifying the key stakeholders of Protected Area Complex (PAC). The protected area complex includes Kala Wewa National Park, Proposed Kahalle and Palle Mountains National Park and a new Managed Elephant Reserve which will replace the existing sanctuary. Stakeholder interactions, their intensity and the type of interaction (positive, negative, neutral) were analysed. The results were used in identifying the management structure of the proposed plan as well as key stakeholders that can assist DWC in implementing the strategic framework. Similarly, threats and issues of the PAC and the peripheral areas were collected using published data, information from the DWC, DS and stakeholder consultations. Threats and issues were analysed using matrix analysis. The proposed plan was prepared considering the prioritised threats and issues.

The plan under the vision of ***“Kala Weva and Kahalle-Pallekele Protected Area Complex serving the nation with a rich biodiversity and healthy ecosystems with preserved archaeological value”*** was prepared for the period of 2018 - 2022. The enabling policies, legislature and relevant conventions are presented. Regional Project Implementation Committee (RPIC) which is headed by the Assistant Director of the region and Park Wardens of proposed Kala Wewa and

proposed Kahalle and Palle Mountains National parks and rangers of proposed Managed Elephant Reserve (MER) and all regional key stakeholders will implement the projects at ground level. Regional Project Implementation Committee will report to Director General (DG) of the Department of Wildlife Conservation and District Coordinating Committees (DCC) of Kurunegala and Anuradhapura. DG of DWC will be responsible for new gazette notifications, disbursement of funds, procurement of goods and services, monitoring and evaluating and obtaining national level clearance for activities.

In order to achieve above mentioned vision, three short term goals and four long term goals are set. Short term goals exclusively address the clearing of land rights and identification of land to be protected with community participation which is a precursor to implement long term goals. Hence, the actual implementation of the plan starts in 2017 and work is expected to take one year to complete. Once short term goals are achieved, actions for achieving long term goals can be executed from 2018 onward. An operational goal (to operationalize an enabling PAC management environment to effectively serve ecological and human needs), an environment goal (to ensure a thriving ecosystem rich in wildlife with long term integrity and resilience), a socioeconomic goal (to safeguard optimum living conditions to community and satisfaction from services derived by PAC to all) and a governance goal (to warrant an enabling governance framework strengthened to manage PAC and beyond with committed participation from stakeholders) are proposed. For each goal its expected outcomes are presented. Each goal is divided into objectives and strategic actions enabling formulation activities. Time frame indicates expected year of initiation and completion.

The objectives set for each goal intend to address the threats identified as of having the highest likelihood of occurrence and the highest impact. Boundary disputes, land grab, Hunting/poaching, lack of inter-agency coordination, lack of updated baseline data, constructions and developments within sanctuary, undue political pressures, inadequate staff/skilled staff, inadequate infrastructure, land encroachment for development, scarcity of water during dry season, damaging the archaeological sites & removing of artefacts, spread of invasive species, human and animal deaths due to HAC, illegal fishing activities, destruction of migratory paths and seasonal movement patterns of wild animals, insufficient communication between DWC and stakeholders and localised problems of elephant fence such as locational and maintenance problems, inundation of PA for irrigational development thereby restricting access area for wildlife are the key threats addressed in this management plan.

The main strategic actions proposed are creating of Kala Wewa National Park, Kahalle and Palle Mountains National Park and Managed Elephant Reserve encompassing forested lands of DWC and FD and other state lands, thus expanding the ecological sensitive area as one continuous block with due protection for the biodiversity, its connectivity and movement of species to ensure viable populations. It will also provide maximum direct and indirect benefits to within and peripheral communities and other stakeholders. Collating already published data and conducting a thorough baseline study to establish the current status of ecosystems, inhabitants and socio economics of peripheral community, estimating the population status and distribution of key stone species (both freshwater and terrestrial), coordinated boundary patrolling and systematic surveillance of the area with Forest Department, restoration of degraded habitats, invasive management and afforestation, habitat enrichment including

access to water, community forestry in MER, removal of disturbances to wild fauna from illegal settlements and illegal land use including unsustainable developments inside the PA as well as in one mile development restricted zone of proposed NP, improvement of community based tourism, creation of alternative livelihoods and improvement of sustainable agriculture with options for marketing are some of the proposed strategic actions.

For the socio economic outcomes, within and peripheral communities should be engaged in activities that provide them with a sustainable income and elevated living conditions. These include clearing the land rights of communities, liaising with District Secretaries and Department of Agriculture to introduce wildlife friendly culture techniques, organic agriculture, value addition of products, value creation and post-harvest management of fisheries resources that are sustainably harvested, establishing home - stay facilities for visitors, temporary and permanent employment for communities and better protection from wild animals to reduce human animal conflict. Communities living in MER will be made aware and empowered to live alongside protected areas with training and awareness sessions and electric fences around their property (community electric fences). Additionally, management of irrigational schemes within PA with routine maintenance is proposed along with implementation of wildlife management plan developed for North Western Province Canal.

This management plan also proposes two entrances to Kala Wewa National Park, Kahalle and Palle Mountains National Park and developing conservation tourism, species specific tourism such as for birds, archaeological heritage focused tourism and developing visitor facilities and state- of – the - art visitor centres with sanitary facilities, animal watch huts and strategic points to view wild animals and aquatic fauna. Also empowering visitors, villagers and hoteliers are planned.

Several infrastructure developments such as new park offices for proposed national parks, visitor centres, nature trails, range offices, storage facilities, new bungalows for visitors and establishment of new beat offices in strategic locations are proposed. Additionally, cadre increases, national and international training and short term study visits are proposed as strategies to empower staff serving PAC.

Indicators of change are presented and the targets have been set. This management plan also contains communication, monitoring and evaluation and sustainability plans. A compilation of current information on community socio economics, species and ecosystems are given as annexures.

1.

An introduction to Kahalle-Pallekele Protected Area Complex

Kahalle-Pallekele (KPK) sanctuary was declared on 11th July 1989, and at the time of declaration a total of 21,690 ha of land lying in the administrative districts of Kurunegala and Anuradhpura encompassed the sanctuary (Figure 1). Of this Kala Wewa and Balalu Wewa portions of the sanctuary has been separately identified as a national park (Figure 2) and documents have already been submitted to parliament by the Ministry of Sustainable Development and Wildlife (MoSDW) for declaration. Hence, at present two protected area types, a sanctuary and a national park is present. The differences of these two types of protected areas are as follows.

Sanctuaries: Sanctuaries ensure the protection of wildlife in private lands which are outside the state claim. Therefore, sanctuaries may include private lands and permits are not required to enter). According to the IUCN system of classifying protected areas, a Sanctuary is a Category VI protected area.

National Parks: Public are permitted to enter national parks to observe and study wildlife under rules and regulations introduced to protect wildlife and their habitats. According to the IUCN system of classifying protected areas, a National Park is a Category II protected area.

Kahalle-Pallekele sanctuary falls within the jurisdiction Polpithigama, Ahatuwewa Divisional Secretary's Divisions in Kurunegala District, in the North Western Province and Galnawa, Kakirawa and Palagala Divisional Secretary's Divisions in Anuradhapura District, in North Central Province. Kahalle-Pallekele Sanctuary is located approximately between the latitudes 285,000 mN and 315,000 mN; and longitudes 160,000 mE and 180,000 mE. The elevation of the sanctuary ranges between 160 to 320 m above msl.

Although the area of the Kahalle-Pallekele sanctuary is approximately 217.9 km² (approximately 21,690 ha) at the time of declaration, present extent of forest cover is much less than at the time of declaration. In the recent past, vast tracts of land have been released to village expansions and irrigation projects in and around the sanctuary, as well as land has been illegally grabbed.

This sanctuary can be reached through several roads, from Thambuttegama via Galnawa (B501), from Kekirawa via Vijithapura (B213 and B423), from Galewela via Palagala (B423) and from Polpithigama via Madagalla (B326). National railway line serves the area and runs across the sanctuary with several stop overs within the sanctuary.

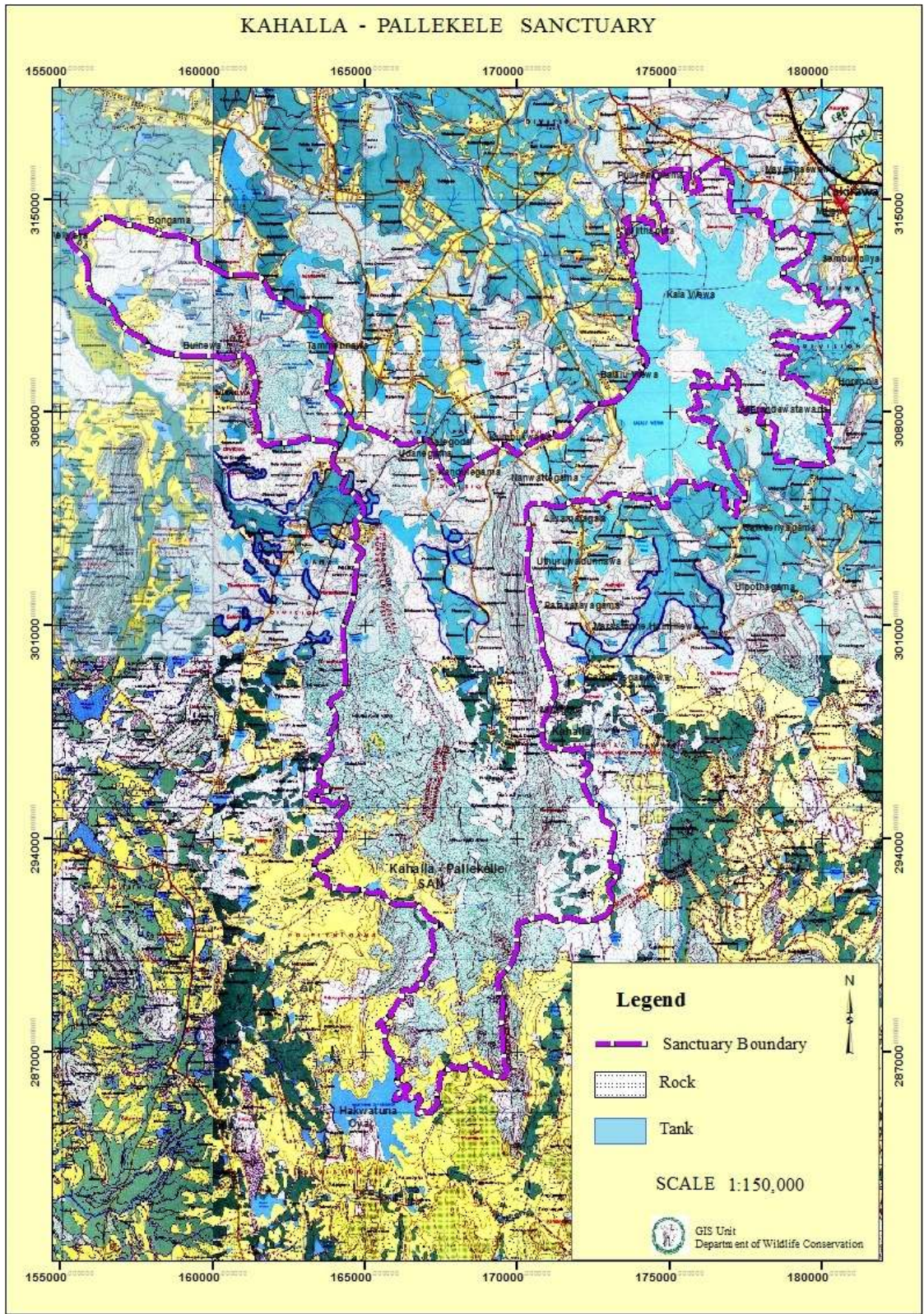


Figure 1: Boundary of Kahalle-Pallekele Sanctuary ©DWC

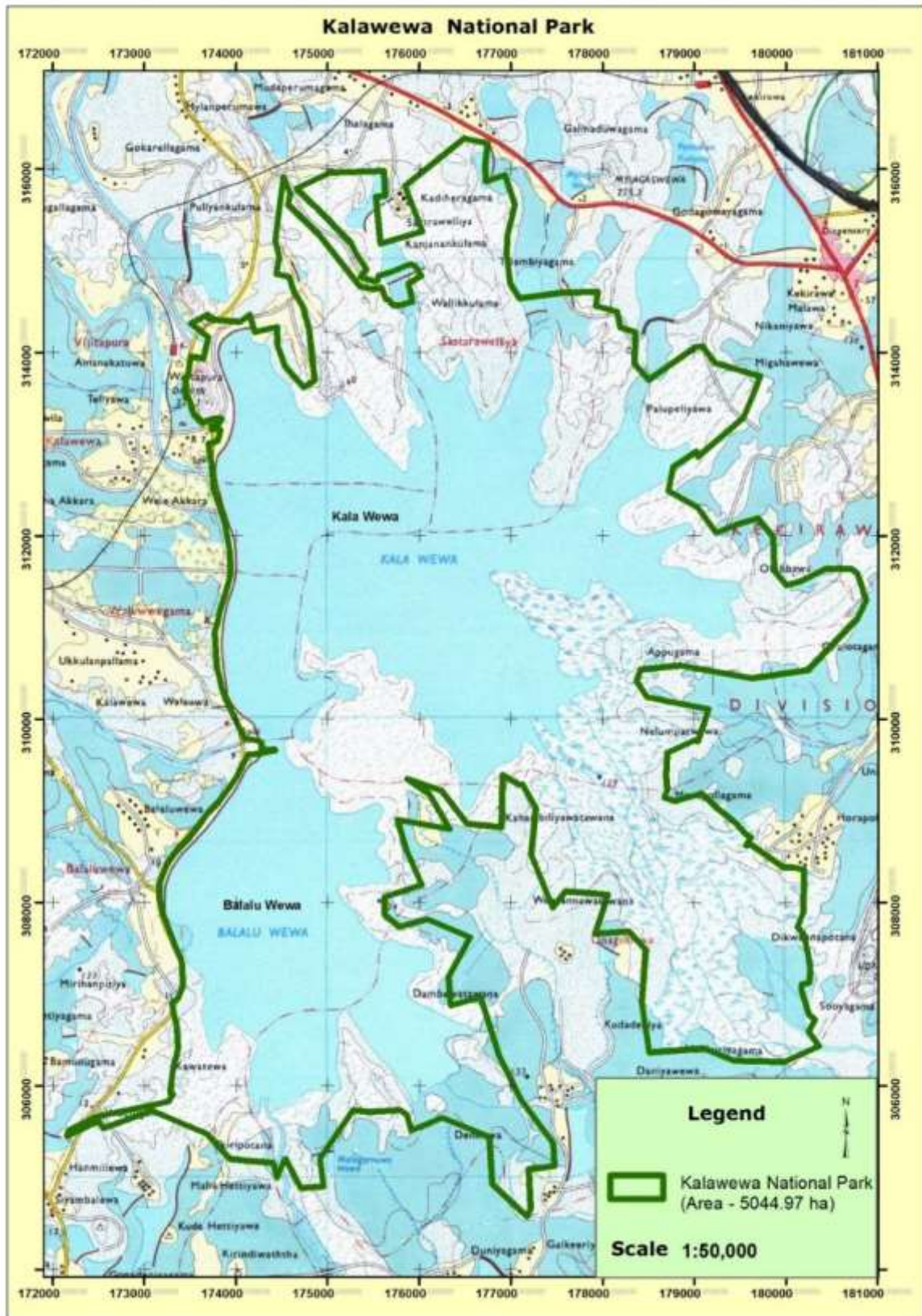


Figure 2: Boundary of proposed Kala Wewa National Park ©DWC

Strategic location of KPK Sanctuary

KPK sanctuary feeds three catchments. Deduru Oya, Mee Oya and Kala Oya basins are located within this sanctuary. Two mountain ranges, Kahalle and Palle are the main feeding grounds of these catchments (Figure 3). The Kahalle-Pallekele Sanctuary and forest reserve complexes around the sanctuary (Table 1) have been established primarily to protect the catchment of Deduru Oya, Mee Oya and Kala Oya rivers. It is also one of the few protected areas present in the North-western province of Sri Lanka.

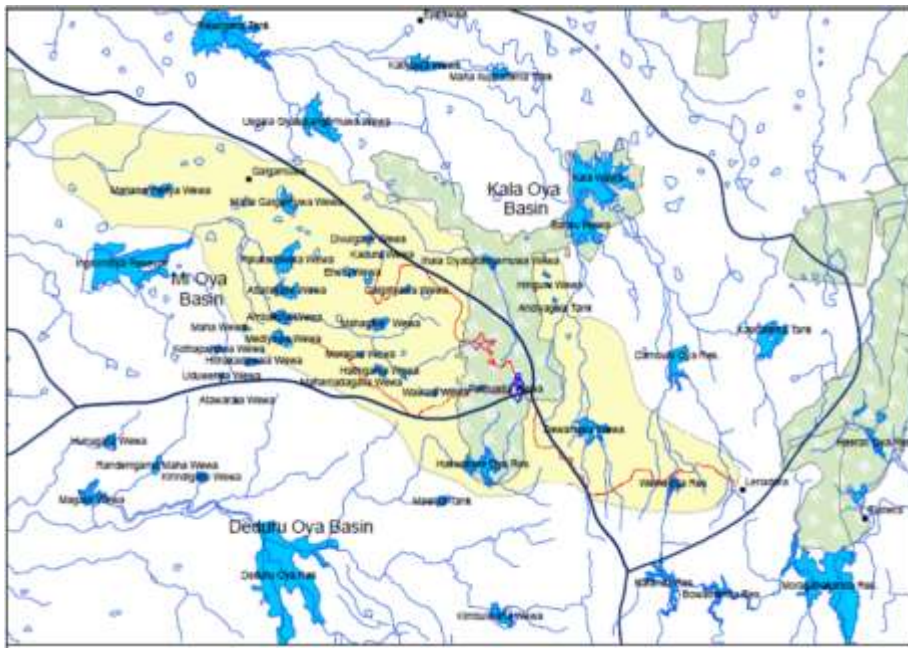


Figure 3: Major river basins of KPK sanctuary (© EIA report of Northwestern Province Canal)

Table 1 : Forest Reserves and protected areas located within the projected area

Name	Category	Extent (ha)
Ma Eliya	FR	381.2
Kahalle	PR	34.0
Kahalle	FR	3292.5
Pallekele	FR	12721.4
Kahalle-Pallekele	S	21690.0

* FR- Forest, PR- Proposed Forest Reserve, S – Sanctuary. Part of Kahalle and Pallekele Forest Reserves are found within the Kahalle- Pallekele Sanctuary

Several important protected areas lie in close proximity to KPK sanctuary and as such this sanctuary serves as a corridor for movement of animals between Kala Oya, Mee Oya, Deduru Oya, and Mahaweli river basins. To the North-eastern border of KPK, Ritigala Strict Nature Reserve links KPK sanctuary with Kaudulla NP. Ritigala was designated a Strict Natural Reserve on 7th November 1941 (Gazette Notification No. 8809), having an area of 3,776 acres and 34 perches (1,528.2 ha). Elephants migrating between Kaudulla National Park and Kahalle-Pallekele Sanctuary use Ritigala and Yaan Oya catchment. Elephants and other mammals also

migrate between forest remnants and mountains off Matale into KPK Sanctuary. From the western side of the sanctuary, elephants range between Deduru Oya forest patches, Galgamuwa, Nochchiyagama up to Thabbowa.

Geology and soil characteristics of KPK sanctuary

Kahalle-Pallekele Sanctuary is located in the northern lowland which is considered to be an old peneplain surface. This peneplain is mostly flat, except for few isolated erosional remnants that rise sharply above the flat surface. Geological formation within the sanctuary is called the Highland Series or Khondalites Series. However, the rocks of the Vijayan Complex also occur in the north-western part of the Sanctuary. The basement rocks underlying the sanctuary consist of a variety of meta-sediments such as garnet- biotite- hornblend gneiss, quartzite and marble and charnockitic gneiss. The main rock groups occurring within the sanctuary are: Charnockitic gneiss, Quartzofeldspathic gneiss, Biotite-Hornblend gneiss, impure quartzite, quartz schists with garnet sillimanite interlayered with biotit bearing quartz rich quartzofeldspathic gneiss, undifferentiated charnockitic biotite gneiss, undifferentiated felsic orthoclase and Quartzite (Sri Lanka Geology Provisional Map Series: Published by the Geological Survey and the Mines Bureau of Sri Lanka, 1994).

As per the Kahalle-Pallekele Resource Inventory (DWC 1998), both Kahalle ridge formation and Pallekele ridges and uplands are associated with Antiform geologic structures, while the southern part of Pallekele is associated with an over turned Synform. All the rock formations in the sanctuary area are lying in north-south direction. Three distinct shear zones are identified, one on the eastern boundary, another between Kahalle ridge and Pallekele and a third on the western boundary of Pallekele reserve. There are several north-west, south-east directional fault lines cutting across the sanctuary. The main rock groups on the eastern and western flanks of Kahalle quartzite ridge are undifferentiated charnockitic biotite gneiss and granitic gneiss. The main rock groups occurring on the eastern and western flanks of Pallekele quartzitic and garnetiferous quartzo-feldspathic gneiss ridge formation are granitic gneiss, undifferentiated charnockitic biotite gneiss and hornblend biotite gneiss (DWC 1998). Rocks weather differently and this process is responsible for different hydrologic and edaphic conditions observed in areas associated with ridges and the plains in the sanctuary. Ridges are able to store water in the subsurface forming very good aquifers. The stored water is released as springs at the base, particularly at the contacts of the other hard crystalline geologic formations and this feature is quite important as both the mountain ranges serve as catchments to three rivers.

Soils in the sanctuary have been developed from residual parent materials and slope colluvium. Residual soils are those developed from parent materials, derived by weathering *in situ* of the bed rock beneath it or from slope colluvium of the same parent materials. According to the soil map of Sri Lanka (1971), the soils are predominately Reddish Brown Earths and Low Humic Gleys. Kahalle Pallekele Resource inventory (DWC 1998) details following soil types:

1. Well drained, shallow to very shallow Reddish Brown Earths formed from highly quartzitic parent materials. High percentage of quartz gravel is present throughout the soil profile.
2. Moderately well drained deep to shallow Reddish Brown Earths. In the soil a horizon of quartz gravel is present. It has a better potential to support vegetation.
3. Well drained moderately deep to deep Reddish Brown Earths. In the sub soil at depth a quartzitic gravel horizon occurs, but it will not affect plant growth.
4. Imperfectly drained/hydromorphic variant of the Reddish Brown Earths, moderately deep to deep soils. The soil moisture availability of this soil is such plants continue to grow, while plants may be stunted in the shallow well drained gravelly soils in the same landscape.
5. Poorly drained, moderately deep to deep Low Humic Gley soils with inclusions of imperfectly drained soils. These soils occur in the lower mid slopes of the landscape.
6. Poorly drained, deep Low Humic Gley soils. These soils occur on the level inland valley floors. In the main rainy season, the ground water levels remain high and close to the surface.

Soils in the plain areas formed from granitic gneiss, charnockitic and feldspathic gneiss etc. that contain less quartz have medium textures, good chemical fertility and better moisture holding properties than that of highly quartzitic soils. Soils on quartzitic ridges are not able to support a dense tall vegetation, whereas in the plains the conditions are suitable for tall dense vegetation, and also for a rapid regeneration of the vegetation.

Climate and hydrology of KPK sanctuary

The climate in Kahalle Pallekele Sanctuary is characterized by seasonal rainfalls and uniformly high temperature conditions. The average annual rainfall is about 1500 mm in the northern end, and it gradually increases towards the south. The annual average temperature is about 32° C. The mean monthly maximum temperature varies from 28.7° to 33.6° C and mean monthly minimum temperature varies from 20.6° to 25.2° C.

Rainfall:

Two rainfall peaks occur in a year, one in April - May and the other in October- November. A short dry spell is experienced in February-March and a prolonged dry period is observed from mid-May to end of September. The main rainy season commences with inter - monsoonal convectional thunder-storms in September - October.

The Kahalle Pallekele Sanctuary falls in two agro - ecological region defined as the "Dry Zone, Low-country, Rainfall Region 1" designated as DL1 and the "Intermediate Zone Low-country Rainfall Region 3" in the Agro - ecological Regions Map of Sri Lanka. The distinguishing characteristics are the 75 % probable rainfall, soil, and temperature/ (elevation between 300 m and the sea level), (Land and Water Use Division, Department of agriculture, Peradeniya 1979).

The seasonal rainfall is partitioned mainly as surface runoff and infiltration. The surface water is the most important component of the overall hydrology of the sanctuary. Because of springs vegetation is different to the typical dry zone mixed evergreen and an atypical vegetation is observed along the springs. On the western foot slope of Kahalle ridge there are a number of individual springs lying along its length. These springs provide water for animals as well as human settlements found in the area between Kahalle and Pallekele ridges. On the western and eastern flanks of Pallekele the ground water remains very close to the surface.

Surface runoff generated due to the presence of steep ridge slopes, flow into numerous seasonal and minor perennial reservoirs present in the plain area. The other important component of the overall hydrology is the ground water, which is emerging at the base of the high relief ridges as springs. There were at least 9-10 springs on the western slope of Kahalle ridge, which supply water to many reservoirs in the area between Kahalle ridge and Pallekele as per the resource inventory (DWC, 1998). The quartzitic geologic formations in the sanctuary area, that stand few hundred meters above the general level act as good aquifers. The quartzitic rocks have undergone physical weathering to allow rapid infiltration of the abandon rainfall in the season and porous enough to hold most of the infiltrated rainfall, which is released at the base of the high relief feature as springs. These springs appear at the contact of the quartzitic formation of an anticline and the other hard rock formations of a syncline that are oriented north south.

Hakwatunawa, Kala Wewa and Balalu Wewa reservoirs are important human-made water bodies. Additionally, several seasonal reservoirs are linked mostly as cascades. Kala Oya River feeds most of the reservoirs in Kala Oya basin. During the prolonged dry periods, all streams remain dry or contain very low quantities of water.

In the hard crystalline rock area, there is hardly any ground water. On the other hand, where the quartzitic formations are found, namely Kahalle ridge and Pallekele ridges in addition to the number of springs observed along its contact between the other hard crystalline rock formations, the shallow ground water remains a good source of domestic supply. The shallow ground water is partly fed by the quartzitic aquifer in the adjacent areas. The springs have created pools of water, which during the rainy seasons flow out.

Vegetation types and faunal diversity

Kahalle-Pallekele Sanctuary is located in the Dry Zone but parts of its Southern border falls in to intermediate zone. The soil and climatic conditions encountered in the Kahalle - Pallekele Sanctuary is those that are common in the dry and intermediate zone environment. Therefore, the vegetation typical of this area is the Lowland Semi-deciduous forest also known as Dry Mixed Evergreen Forest. The canopy of dry-mixed evergreen forest consists of trees such as– *Manilkarahexandra* (Palu), *Alseodaphne semecarpifolia* (Wewarana), *Vitex altissima* (Milla), *Syzygium cumini* (Madan), *Pleurostyliia opposita* (Panakka), *Schleichera oleosa* (Kon), *Dialium ovoideum* (Gal Siyambala), *Chloroxylon swietenia* (Burutha), *Pterospermum suberifolium* (Welan), *Berrya cordifolia* (Halmilla), and *Diospyros ebenum* (Kaluwara). *Drypetes sepiaria* (Wira) forms the sub-canopy of these forests. The understory vegetation includes medium sized trees such as *Diospyros ovalifolia* (Kunumella), *D. ferrea*, *Limonia acidissima*, *Nothopegiabeddomei* and shrubs such as *Ochna lanceolate* (Kera), *Tarenna asiatica* (Tharana), *Memecylon angustifolium*, *M. capitellatum*, *M. umbellatum*, *Mallotus esinosus*, *Croton laccifer* and *Dimorphocalyx glabellus* (Thenkuttiya).

A large part of the protected area exists as a N-S directed hill range consisting of several crests up to an altitude of ca. 400 m. Although Dry Mixed Evergreen Forest which is typical of the vegetation in the dry zone found here, variations in altitudinal, edaphic and hydrological conditions have created various other forest types. The north is drier compared to the south. The south-south western part of the sanctuary falls within the intermediate climatic zone.

Main forest types found in KPK Sanctuary are given below. The typical flora of each type are given in detail in resource inventory produced for the sanctuary (DWC, 1998) and some key information extracted from this report is presented as annexures in this management plan.

1. Primary low forest on ridges

These occur on the crests and upper or higher slopes of Kahalle and Pallekele hill ranges between altitudes of 315 and 400 m above sea level and they are fairly undisturbed. They have low close canopies, generally between 8 - 12 m high with less distinct stratification.

2. Primary high forest on upland

These occur on the uplands of the lower plains and lower slopes of hills and ridges up to ca. 340 m and they are generally somewhat disturbed in relation to the forest on the crests of ridges and hills. They have high canopies of 14 - 20 m, and the stratification is relatively distinct into canopy, sub-canopy, and undergrowth.

3. Secondary forest on uplands

Forest vegetation can become secondary when most of its original timber trees are felled and the canopy is extensively opened. Such highly degraded forests are occupied by several pioneer and secondary species which are characteristic of scrub vegetation. Trees such as *Manilkara hexandra* often represent remnants of the original high forest community and their canopies generally reach up to 15 m or more. *Azadirachta indica* is frequently seen as a fast-growing tree species established in such secondary forest. Secondary forest also occurs on abandoned chena lands. The regrowth of plant communities on such areas takes place in a series of successions through a pioneer vegetation (to 1 m), low scrub (1-3 m), high (3-5 m), low forest (5-8 m) and finally reaching high forest with close canopies up to 12-20 m. The species composition can be that of a mixture of scrub and forest vegetation types in varying proportions depending on the stage of succession at the particular site.

4. Scrublands

Their canopies range from 3 - 5 m with the appearance of tree species such as *Bauhinia racemosa*, *Premna tomentosa*, *Diospyros ovalifolia*, *Azadirachta indica*, *Grewia damine* etc. There can be also sporadic large trees such as *Manilkara hexandra* left uncut during the clearing of the forest for chena. Tropical thorn forests (*Manilkara-Chloroxylon-Salvadora-Randia* series), is found associated with scrublands.

5. Riparian forest

This is a special forest community, almost totally influenced by special hydrological conditions, namely the perennial springs of KPK sanctuary. High levels of ground moisture and perhaps quartzitic soils support very tall luxuriant forest vegetation. They are however, different from the riparian forest communities occurring in association with other water courses such as rivers in the dry zone. Their canopies reach 30 m with species such as *Myristica ceylanica*, *Horsfieldia irya*, *Magnifera zeylanica* and *Mesua ferrea* etc. with *Ficus calosa*, *Berrya cordifolia*, *Hydnocarpus veneta* and *Diospyros malabarica* in the sub canopy, while *Saraca asoka*, *Mallotus resinousus*, *Suregada lanceolata*, *Leea indica* *Ficus hispida* etc. at lower levels.

6. Teak Plantation

Few patches of Teak plantations are found, especially in the Pallekele side of the sanctuary. Additionally, *Eucalyptus* plantations are also found within the sanctuary and both types of plantations are currently not managed for forestry. Teak plantation is frequently used by elephants.

The faunal diversity of the sanctuary has been studied in detail for the resource inventory produced by DWC in 1998. Details of main taxonomic groups are given and annexures

Archaeological importance

KPK Sanctuary and surrounding areas are considered as archeologically, historically and culturally important areas when considering the exiting historical and archaeological factors. Within the sanctuary, Aukana and Raswehera temples, ancient reservoirs such as Kala Wewa, Balalu Wewa, and villages such as Parawahagama are present in addition to numerous archaeological sites and ruins scattered around the sanctuary. One important archaeological site outside sanctuary is Ibbankatuwa area in Dambulla with a history expanding up to pre-historic era.

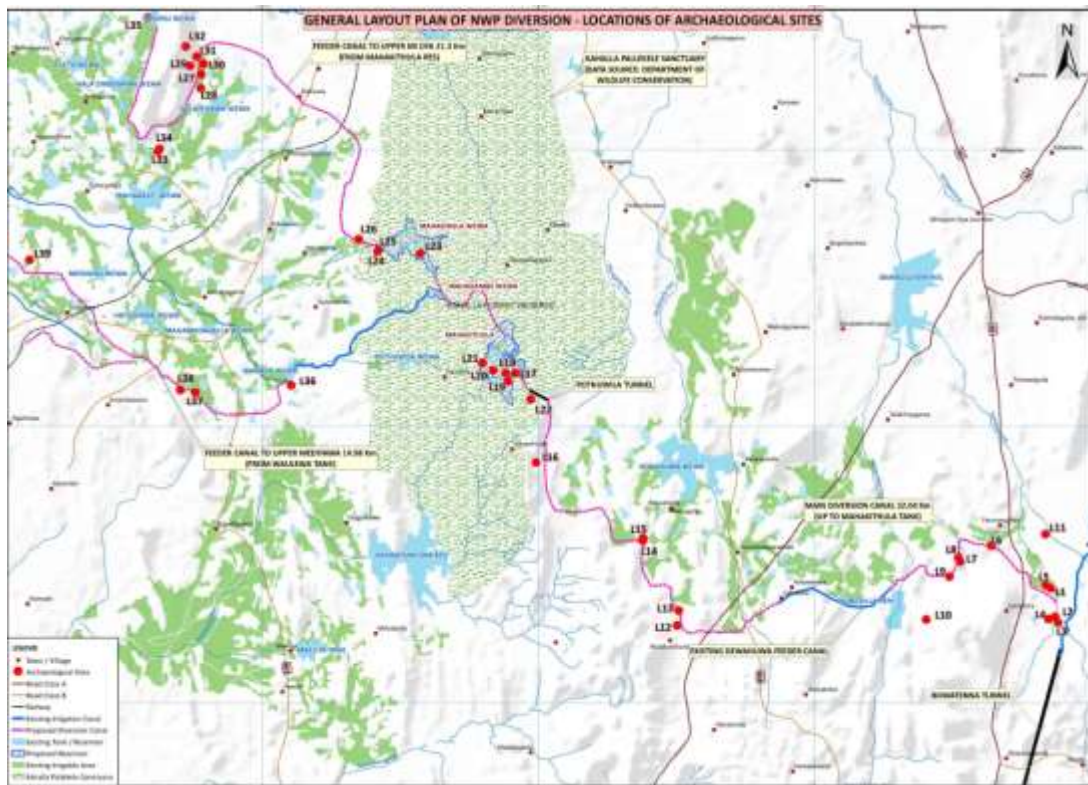


Figure 4: Archeological sites along North Western Province Canal ©NWPC EIA

Table 2: Archeological sites along North Western Province Canal ©NWPC EIA

Map Reference	Site
L17	Ruined Tank
L18	Cairn Burial site of Goraka Palassa
L19	Ancient iron slab deposit
L20	Ruined Mahakitula
L21	Ancient settlement near the Maha Kitula Tank
L22	Mahadambe Tank
L23	Ancient Settlement
L24	Mahakirula Tank
L25	Ancient settlement near the Mahakirula Tank
L26	Ancient post shred deposit

Past, present and future irrigation schemes

Kala Oya, Mee Oya and Deduru Oya has been key basins in which ancient reservoir systems were developed. Most reservoirs are cascade systems. In KPK Sanctuary several major reservoirs are present and they are connected to minor reservoirs through an extensive system of canals. In recent years' parts of the sanctuary was developed under Mahaweli Development scheme and as such diverted waters of River Mahaweli is fed to Kala Oya, thus to Kala Wewa and Balalu Wewa reservoirs.

Future irrigation schemes

North Western Province Canal (NWPC) Project is the latest irrigational development to take place in the area with direct impacts to sanctuary. The project areas include Hakwatuna Oya Irrigation System in the Deduru Oya River Basin and medium and small irrigation systems in the Upper Mee Oya Basin in the North Western Province (NWP). The NWP Canal is interlinked with the North Central Province Canal Program (NCPCP). The NCPCP comprises two phases: (i). The construction of the Upper Elehera Canal (UEC) which will divert water from the Moragahakanda Reservoir to the North Central Province (NCP); and (ii) the North Central Province Canal which will transfer water from NCP to the Northern Province. Once the UEC canal is constructed areas currently supplied by the Bowatenna tunnel will receive water from the UEC canal, hence water savings can be diverted to the NWP, through the NWPC.

The proposed NWPC originates from a point about 1 km downstream of the outlet of the Bowatenna tunnel at Lenadora in Matale District. A contour canal will transfer water to water scarce systems in NWP. On the way, the transfer canal will supply water to Wemedilla and then to Dewahuwa reservoirs. The transfer canal will go through Kahalle-Pallekele Sanctuary, and Maha Kirula and Maha Kitula Reservoirs which will serve as storage reservoirs (two reservoirs inside sanctuary). Mahakithula reservoir will enable the transfer of water to Hakwatuna Oya Reservoir. The diverted water will be stored in existing and new reservoirs and distributed to tanks in the Hakwatuna Oya Basin and Upper Mee Oya basin according to irrigational and drinking water demands benefitting 80,000 families in 393 Grama Niladhari (GN) Divisions located in 5 Divisional Secretary Divisions.

- Deduru Oya basin: The diversions will transfer water to Hakwatuna Oya reservoir. The cropping intensity (CI) of Hakwatuna Oya irrigation scheme would be increased from 1.5 to 1.8.
- Kala Oya Basin: The diversions will transfer water to Wemedilla and Devahuwa Reservoirs. The CI of both reservoirs would be increased from 1.8 to 2.0.
- Mee Oya Basin: The diversions transfer water to Mahakithula and Mahakirura Reservoirs and about 4000 ha of minor tank cascade systems will be benefited with increased CI from 1.0 to 1.5

Maintenance of the minimum storage of 1/3 capacity in the tanks (even during the dry seasons) is projected to have beneficial impacts to wild animals and ecosystem. A comparatively high groundwater level during dry periods, will help improving groundwater quality, and minimize drought effects on forests (NWPC EIA, 2015). However, several natural habitats such as scrub, dry-mixed evergreen forests, degraded dry-mixed evergreen forest, teak plantations, and riverine forests will get inundated causing the habitat degradation, fragmentation and loss of habitats. It is also observed that the rich biodiversity repositories, especially the terrestrial habitats such as riverine forest, dry-mixed evergreen forests, disturbed dry-mixed evergreen forests and scrublands will be affected due to the proposed reservoirs and the canal. In terms of fauna, it is observed that since the two proposed tanks, Maha Kithula and Maha Kirula (combined area is 342 ha) will inundate forest, scrub forest and teak planted areas within the Kahalle-Pallekele Sanctuary, loss of habitats as well as blockage of movement paths for animals, especially elephant, Sloth bear, threatened and endemic reptiles would occur.

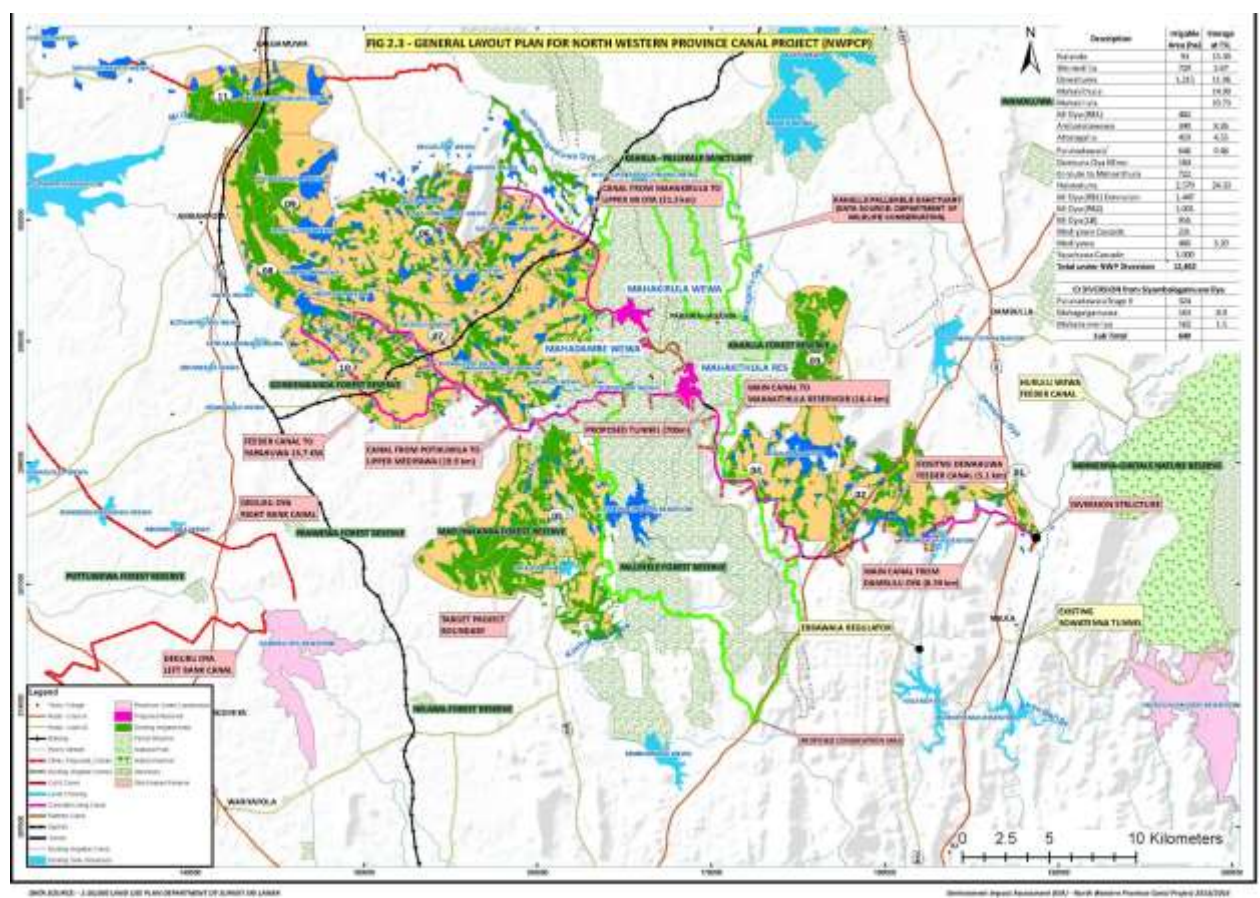


Figure 5: The proposed developments under Northwestern Province Canal (©EIA of NWPC 2015)

Socio economics of people

At the time of declaration of KPK sanctuary, five villages were recognised as traditional villages and were excluded from the declared area.

At present following villages are also present within the sanctuary (Table 03).

Table 3: Summary of the villages present within the Sanctuary

Villages already excluded at the time of gazetting of the Sanctuary	Other villages within the Sanctuary	
	Palagala	Polpithigama
Wambatuwewa	Mirivahampitigama	Dambe
Paravahagama	Kudahettiyawa	Rajakandayaya
Maanaruwa	Mahahettiyawa	Hirudeniya
Ambagaswewa	Karawilagala	Pothuwila
Ipavahara	Kalugala	Madahapolayaya
	Kirindiwatta	Mahapitiya
	Kakulanda	Kattamberuwa
	Divulwewa	Dummeeya
	Meewewa	Agulgamuwa
	Gonadeniyawa	Pibidena yaya
	Nan Wattedagama	Imihamingama
	Peenawa	Rakaula
	Bamunugama	
	Galkiriyagama	
	Pahalagama	
	Dikadiyawa	
	Balalu wewa	
	Gamsaba	
	Halmillawewa	

The main income of the people in this area are from farming. Paddy, vegetables, legumes, fruits and other commercial fruits are cultivated extensively in the sanctuary. Chena cultivation is still practiced by people and several abandoned chena cultivations are seen inside the sanctuary. In recent years, large scale commercial agriculture businesses have also started in the area. People depend on water from reservoirs and springs for agriculture. All socio economic data relevant to the area are summarised in appendices (4 to 12) with information on population size, ethnicity and land use.

2.

Current legal framework for management

Table 4 summarises the main policies, legislations and international conventions to which Sri Lanka is signatory, that would be relevant in implementing the management plan. The provisions of Fauna and Flora Protection Ordinance (Amended) Act No 32 of 2009 enables preparing management plans and executing them in protected areas.

Table 4 : Summary of policies, legislature and conventions related to strategic action framework.

Type	Name	Year	Major Area
Policies	National Wildlife Policy	2000	Wildlife
	National Forest Policy	1995	Forest Resources
	National Physical Planning Policy and Plan	2007	Land Resources
	National Environment Policy	2003	Environment
	National Policy on Solid Waste Management	2003	Solid Waste Management
	National Air Quality Management Policy	2000	Air Pollution
	National Watershed Management Policy	2004	Water Pollution
	National Policy on Wetlands	2006	Wetlands
	National Fisheries Policy	2006	Fisheries Resources
	National Soil and Mineral Policy	2007	Minerals and Sand
	National Sand Policy	2005	Sand use
	National Policy on Elephant Conservation	2006	Elephant Management
	Proposed Alien Invasive Species Policy		Invasive species
Legislations and regulations	National Environment Act No 47 of 1980	1980	Environment
	Irrigation Ordinance No 32 of 1946 and Act No 1 of 1951	1951	Water Resources
	Fauna and flora Protection Ordinance (Amended) Act No 32 of 2009	1937	Wildlife and protected areas
	Plant Protection Act No 35 Of 1999	1999	Plant Protection

National Aquatic and Development Agency Act No 54 of 1981	1981	Aquatic Resources
Fisheries and Aquatic Resources Act No 2 of 1996	1996	Fisheries and Aquatic Resources
Seed Act No 22 of 2003	2003	Plant Protection
Control of Pesticide Act No 33 of 1980	1980	Environment Protection
Felling of Trees Control Act No 9 of 1951	1951	Environment
Water Hyacinth Ordinance No 9 1909	1909	Aquatic Resources
Mines and Minerals Act No. 33 of 1992	1992	Mineral extraction
Mahaweli Authority of Sri Lanka Act No. 23 of 1979	1979	Mahaweli development
Soil Conservation Act No. 25 of 1951 and No. 29 of 1953 and amended by Act No. 24 of 1996	1996	Soil
Irrigation Ordinance No. 32 of 1946, Act No.1 of 1951 and No. 48 of 1968, Law No. 37 of 1973	1973	Irrigation development
National Environment Act (NEA) No 47 of 1980 as amended by act No 56 of 1988 and act No 53 of 2000	2000	Environment
Land Acquisition Act No. 9 of 1950 and subsequent regulations (1596/12) in 2009	2009	Land acquisition
The Urban Development Authority Act No. 41 of 1978	1978	
The Municipal Council (MC) Act No. 19 of 1987	1987	
Urban Council (UC) Act No. 18 of 1987	1987	
The Antiquities Ordinance, No.9 of 1940 (now Act) and the subsequent amendments, particularly the Antiquities (Amendment) Act No. 24 of 1998	1998	
Provincial Environmental Statue No. 12 of 1990 of the North Western Province	1990	Environment
Forest Ordinance of 1907 and subsequent amendments	1907	

Conventions	Ramsar Convention	1971	Wetlands
	Convention on Migratory Species	1979	Migratory Species
	International Plant Protection convention	1951	Plant Protection
	United Nations Framework Convention on Climate Change (UNFCCC 1992)	1993	Atmosphere
	Kyoto Protocol (1997)	2002	Atmosphere
	International Plant Protection Convention (1951)	1952	Bio-diversity
	Plant Protection Agreement for Asia and Pacific Region (1956)	1956	Bio-diversity
	Convention on the conservation of Migratory Species (CMS-1979)	1990	Bio-diversity
	Convention on Biological Diversity (CBD-1992)	1992	Bio-diversity
	United Nations Convention to Combat Desertification (UNCCD- 1994)	1994	Land
Management Plans/ Strategies	North-western Province Canal Wildlife Management Plan		Under preparation
Gazette notifications	Gazette Extraordinary No. 1533/16 dated 25 January 2008)Environmental Protection License (EPL) regulations gazetted under NEA (Government	2008	Pollution control
	Wastewater Discharge Standards- Gazette Notification No. 1534/18 dated 01/02/2008	2008	
	National Environmental (Noise Control) Regulations 1996 - Gazette Notification no. 924/12 dated 23.05.1996	1996	
	EIA regulations gazetted under NEA (Government Gazette Extraordinary No.772/72 dated 24 June 1993 and in several subsequent amendments)	1993	

Stakeholder analysis

Stakeholder analysis conducted using the matrix given below and the Venn diagramming of the existing relationships, resulted in identifying the key stakeholders and their current level of communication. Data were gathered by conducting two regional level consultations and one national level consultations followed by a validation meeting (Annexure 25). Additionally, field observations were made to identify the locations of villages within sanctuary. Two community meetings were organised with grass root level stakeholders with the assistance of Palagala and Galnewa Divisional Secretariats and DWC, to address the villagers and their representatives to obtain their views. Stakeholders from grass root level to policy makers participated in all consultations. Stakeholders were categorised using following criteria.

- Importance** : how important a stakeholder is for management process
Influence : how much influence (power) a stakeholder has over management process

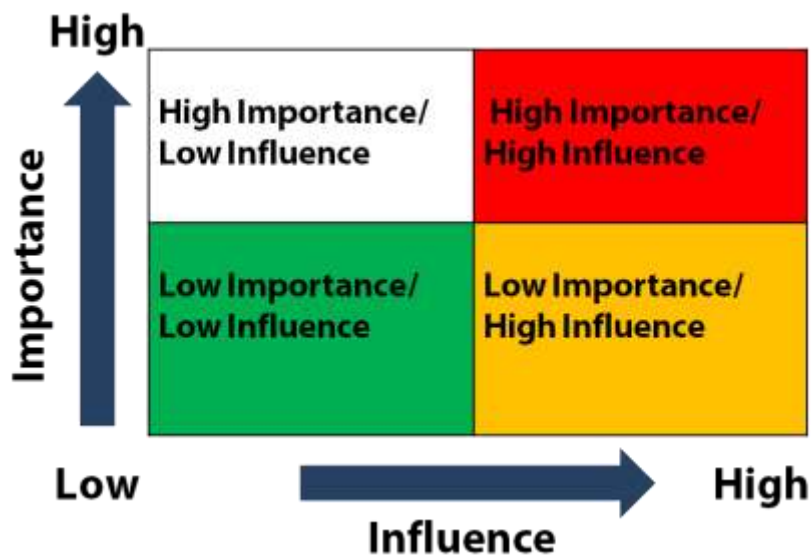


Figure 6: 2*2 matrix schemes used in identifying the stakeholders

The results of the consultations are compiled below;

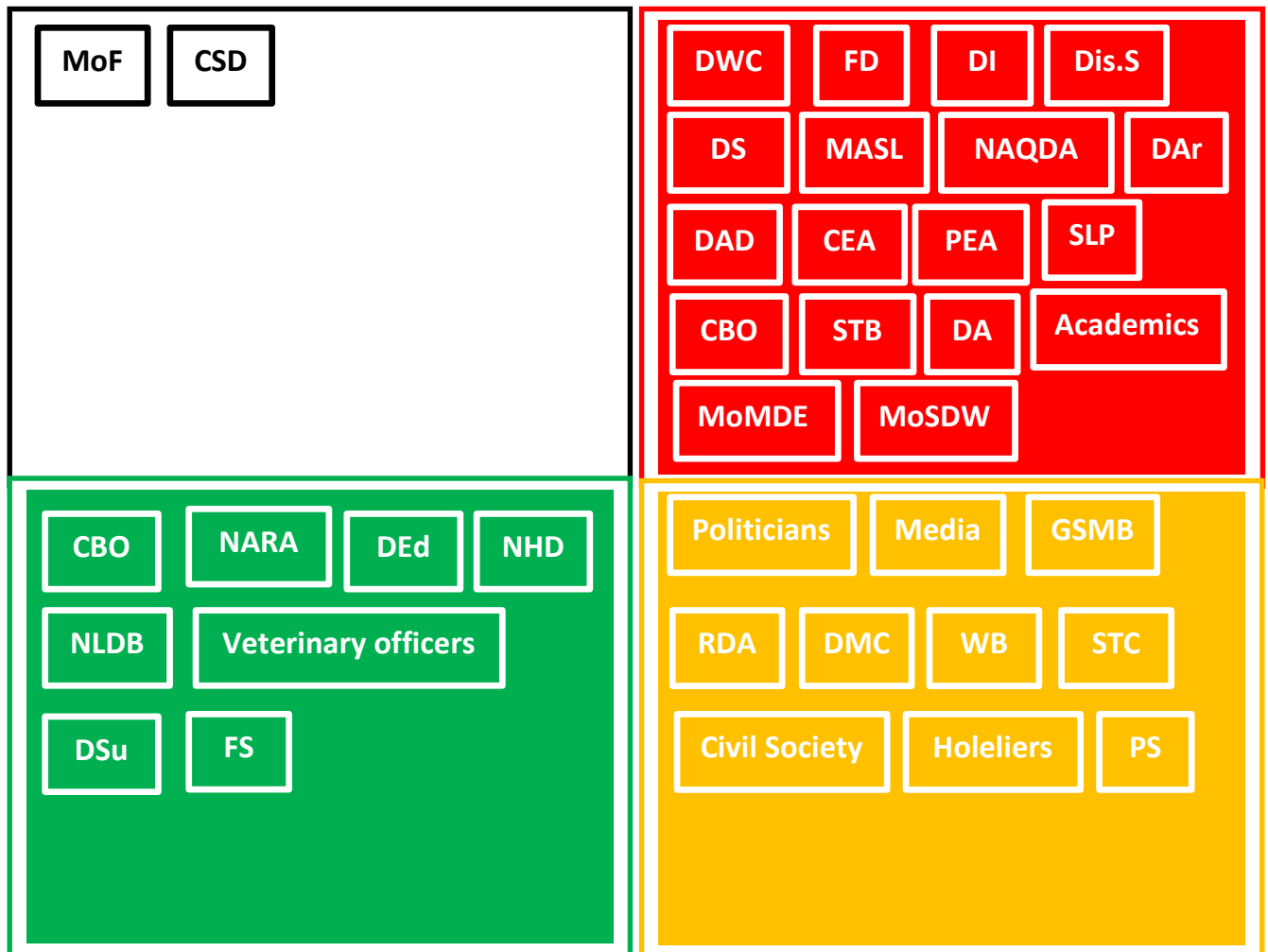


Figure 7: Outcomes of stakeholder analysis

“High Importance-High Influence “stakeholders should be included and consulted in preparation and implementation of this strategic action frame work. They are selected to form the project implementation committee as their presence and support is mandatory to implement the actions of this plan.

The “High Importance-High Influence” stakeholders were;

- Department of Wildlife Conservation (DWC)
- Forest Department (FD)
- Department of Irrigation (DI)
- District Secretariat (Dis. S) and Divisional Secretariat (DS)
- Mahaweli Authority of Sri Lanka (MASL)
- National Aquaculture Development Authority (NAQDA)
- Department of Archaeology (DAr)

- Agrarian Services Department (DAD)
- Central Environmental Authority (CEA)
- Provincial Environment Authority (PEA)
- Sri Lanka Police (Police)
- Community Based Organizations (CBOs)
- Sri Lanka Tourist Board
- Department of Agriculture (DA)
- Ministry of Mahaweli Development and Environment (MoMDE)
- Ministry of Sustainable Development and Wildlife (MoSDW)
- Academics

The other stakeholders are;

- Civil Security Department (CSD)
- Department of Survey (DSu)
- National Housing Developmental Authority (NHD)
- Department of Education (DEd)
- Ceylon Electricity board (CEB)
- Agribusiness enterprises
- Sri Lanka Timber Cooperation (STC)
- Media
- Veterinary officers
- Water Board (WB)
- National Aquatic Resources Research and Development Agency (NARA)
- Civil society
- Ministry of Finance (MoF)
- Geological Survey and Mines Bureau (GSMB)
- Hoteliers
- National Livestock Development Board (NLDB)
- Fisheries Societies (FS)
- Pradeshiya Sabha (PS)

Relationships between stakeholders:

The current relationships of the stakeholders (Figure 8) were analysed by Venn diagramming. Unlike in other sanctuaries, KPK has a diverse set of stakeholders as mentioned above, however, the relationships of these stakeholders are not strong and most relationships with regard to land matters are volatile. Main reasons are;

1. The shape of the sanctuary has resulted in its boundary falling under the administration of North-western and Northcentral provinces, Kurunegala and Anuradhapura districts, Polpithigama, Ahatuwewa, Palagala, Galnewa and Kekirawa divisional secretariats. Therefore, no formal mechanism is present to bring stakeholders to one forum to discuss matters pertaining to KPK.

2. Official responsibility of KPK is vested to Assistant Director of North-western province of DWC. Though he is a member DCC of Kurunegala he does not participate to DCC, Anuradhapura regularly. This has resulted in critical decisions taken about KPK in the absence of Assistant Director.
3. Being a sanctuary, KPK is managed by range offices strategically located in different segments of the sanctuary. Therefore, there is an absence of an overall responsibility to a designated one person. At present, park wardens are appointed only to National Parks by DWC. The overall responsibility therefore, lies with Assistant Director of North western province along with his other responsibilities in the region.
4. Some stakeholders are managed by the head office of DWC, hence such stakeholders have little interaction with regional range officers.

At the regional level, DWC is already working with several regional bodies in terms of sanctuary management, notably through respective Divisional Secretariats and DCC. However, most relationships are either neutral or negative in terms of development activities and as such lack of inter-agency coordination emerged as a significant threat (See Chapter 5).

Several ancient villages are present within the sanctuary. In recent years, new housing schemes have also come up. Hence, infra structure development for people is taken up by some government agencies ignoring the status of the area as a sanctuary. In addition to housing, road networks, irrigation projects, Mahaweli development activities, culture based fisheries in reservoirs and agriculture developments, constantly affects the conservation priorities of the sanctuary. An intensive interference by political authorities is seen in this sanctuary due to the presence of villages within. Development of strategic partnerships and awareness at all levels is required in obtaining political will to implement the management plan. The influence is from both regional level and national level political authorities hence, engaging political authorities at all levels for the human and ecological wellbeing of the sanctuary is essential.

Options for quick communication by all the stakeholders in relation to KPK is currently absent. Hence, prior to implementation of the management plan development of a communication mechanism is required due to above mentioned reasons. Lack of communication has severely affected the progress of the sanctuary as well as significance of this sanctuary for conservation of species and ecosystems. Additionally, positive impacts of living within a sanctuary have neither been communicated by relevant agencies nor appreciated by communities. Also, a mechanism is not present to receive complains and concerns of stakeholders. Lack of communication has resulted in several agencies working in isolation. However, FD, DI, MASL, DS, SLP, CDS, DMC and PEA currently works closely with DWC, though the outcomes are not always positive (Figure 8).

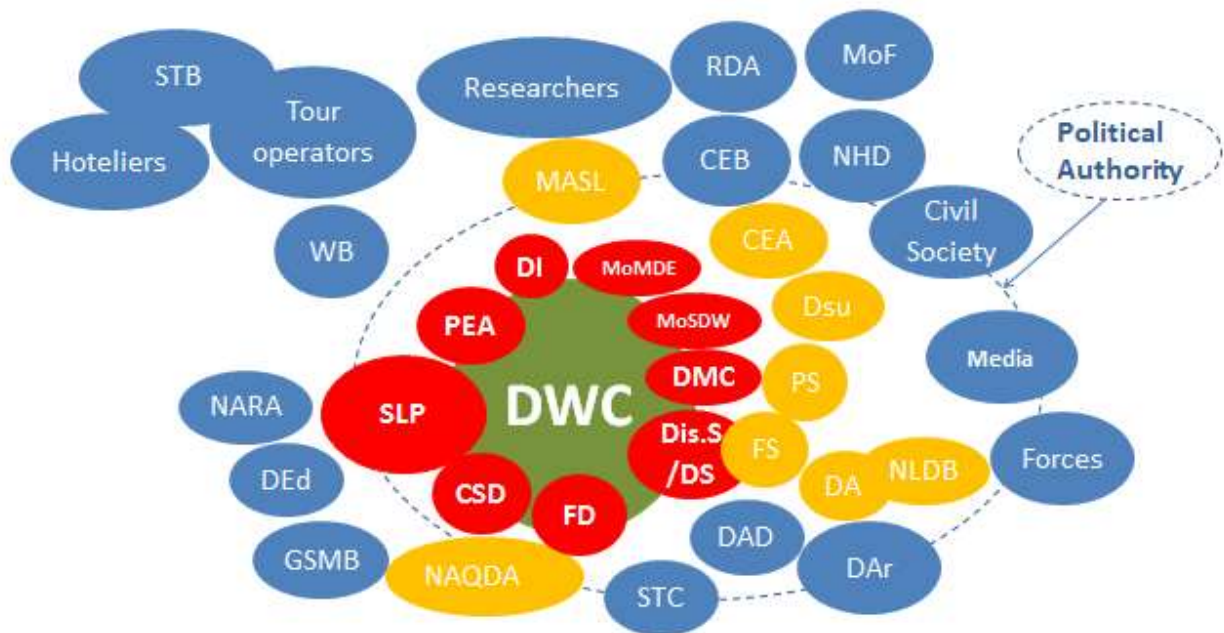


Figure 8: The current relationships of the stakeholders

Agencies such as Sri Lanka Tourist Board, hoteliers and tour operators have little connection with DWC at present, though there is a big potential for nature and adventure tourism. Creating a greater awareness to national and regional level government officials, politicians on do's and don'ts in a sanctuary, and the current regulations pertaining to a sanctuary is vital for the future management of the sanctuary and its surrounding. Current relationships in terms of their level of satisfaction to both the parties were evaluated at stakeholder consultations for known interactions in the presence of all stakeholders. It was evident from the results that most of the interactions were either negative or neutral. Most of the time the outcome was a result of lack of communication, miscommunication, untimely communication and/or lack of awareness regarding the regulations of FFPO.

3.

Current participatory frameworks and their mechanisms in relation to sanctuary administration

Sanctuaries do not have appointed park wardens. As such, they are directly managed by the Assistant Director of the region with the support of range officers. As the regional zonation of DWC is different from the zonation adopted for public administration, many protected areas are administered independent to provincial, district and divisional administration. KPK Sanctuary, though it falls under the jurisdiction of both North Central and North Western provinces, it is managed by Assistant Director of Northwestern DWC administrative region.

Altogether two range offices and two beat offices are currently operated in and around the sanctuary (Table 5).

Table 5: Range offices and beat offices operated in and around the sanctuary

Name of the Range Office	Beat offices
Herathgama	Galkiriyagama
Meegalawa	Pibidunugama

Assistant Director of NWP wildlife region is a member of Kurunegala DCC. At the regional level DWC officials participate to District Coordinating Committees (DCC) chaired by District Secretaries. DWC is also a member of environment committee of each divisional secretariat. Although no formal mechanism is present for collaboration with communities, civil societies and educational sector, depending on the situation and the need, loose mechanisms are in operation. At the regional level environmental impact assessments in relation to any developments in KPK Sanctuary are coordinated by Central Environmental Authority of NWP as well as CEA. Staff of DWC works with Divisional Secretariats that govern the villages within and in the periphery of the sanctuary.

At National level, DWC is a member of all national level committees that have been appointed by other ministries and departments in relation to environment, biodiversity, water and other natural resources' use and conservation, land use, land reclamation, road development etc. Additionally, DWC is serving as a member of project approving agencies in relation to IEE and EIA. Hence, national level participatory framework for decision making is in place. DWC also has several committees established at both the ministerial and department level including Wildlife Advisory Committee.

4.

Current threats and issues of Kala Oya and Kahalle-Pallekele Protected Area Complex

Threat and issue analysis was conducted using the following matrix. Both the likelihood of occurrence and significance of the impact were considered in identifying the threats that need to be addressed in this management plan. Data were gathered at two regional level stakeholder consultations, two national level consultations, 2 community meetings and the outcomes of the threat analysis were validated at a national level consultation (Figure 10).

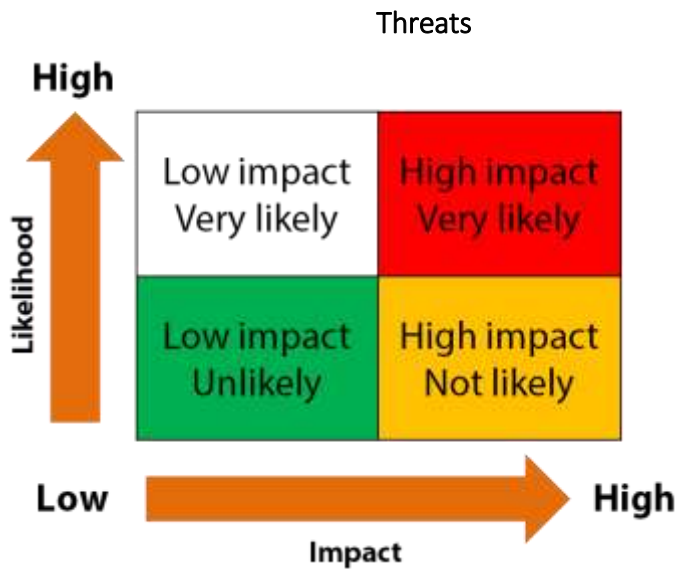


Figure 9: 2*2 matrix scheme used in identifying significant threats

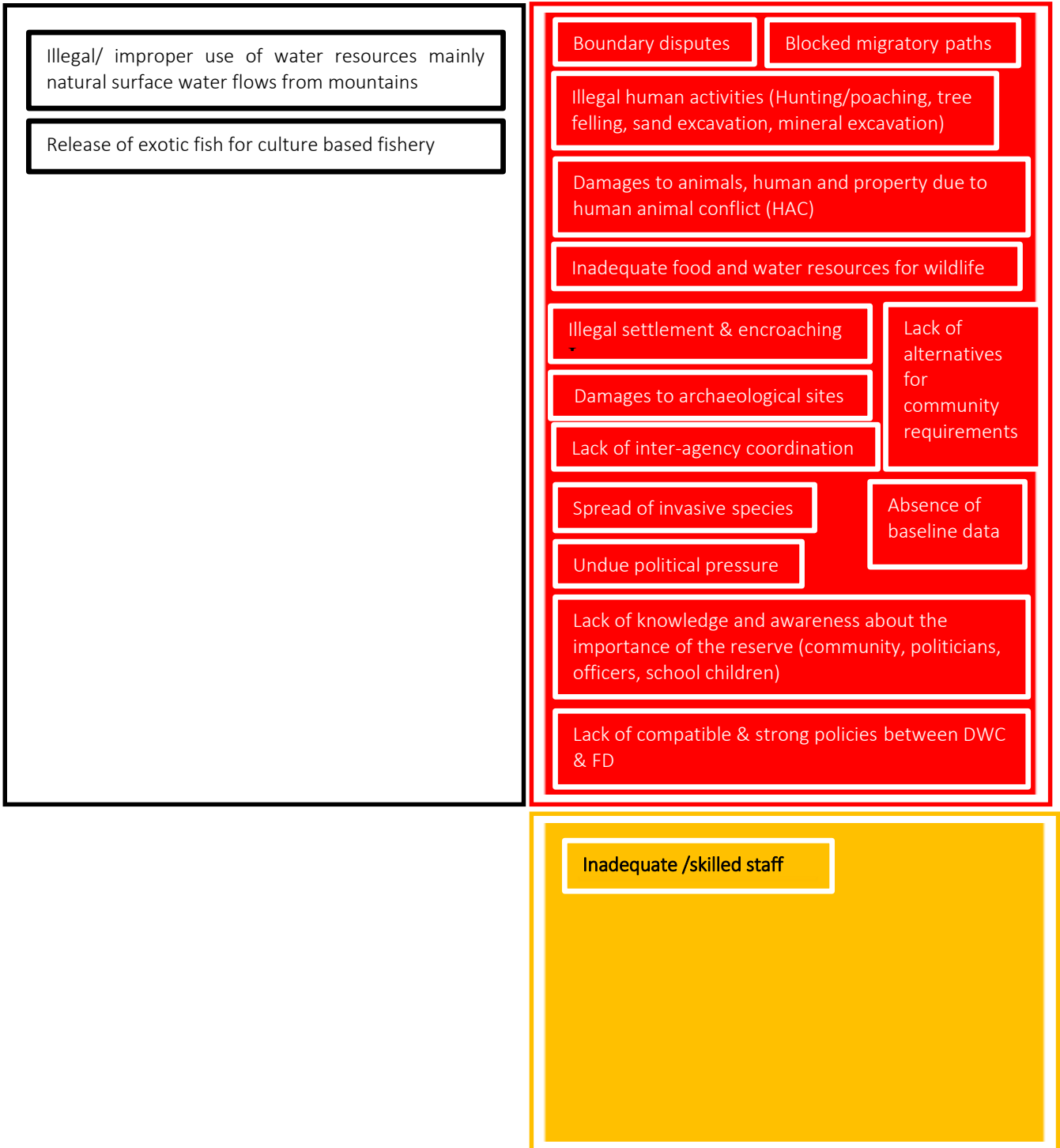


Figure 10: Results of threat analysis

None of the threats and issues discussed by the stakeholders were identified as not having an impact. Within the high impact and very likely threats and issues, boundary disputes emerged as the most important threat to the system.

“High Impact-very likely” threats and issues are the key threats that are addressed in this management plan. In order of importance, they are listed below;

- Boundary disputes
- Illegal settlement and encroaching
- Illegal human activities (Hunting/poaching, tree felling, sand excavation, mineral excavation)
- Damages to animals, human and property due to human animal conflict (HAC)
- Damages to archaeological sites
- Inadequate food and water resources for wildlife
- Lack of inter-agency coordination
- Lack of knowledge and awareness about the importance of the reserve (community, politicians, officers, school children)
- Blocked migratory paths
- Absence of baseline data
- Spread of invasive species
- Lack of alternatives for community needs specially for income generation
- Lack of compatible and strong policies between DWC and FD
- Undue political pressure

“Low Impact-very likely” threats and issues

- Illegal/ improper use of water resources mainly natural surface water flows from mountains
- Release of exotic fish for culture based fishery

“High Impact-not likely” treats and issues;

- Inadequate /skilled staff

Table 6 outlines the key areas where the above mentioned threats are most noticed.

Table 6: Major threats and areas within KPK sanctuary affected by each threat

Threat/ Issue	Main areas
Tree felling for timber (teak, turpentine, Kumbuk) and collection of firewood	Around Raswehera, Balaluwewa, Bongama, Dambe, Dumeeya, Gomaduyagala, Hakwatunawa, Halmillawa, Hatangama, Irudeniya, Kahalle, Kala Wewa, Kande gama, Kattamberiya, Madagayegala yaya, Mahapitiya, Raswehera, Siyabalangamuwa
Hunting/ Poaching (Wild boar(<i>Sus scrofa</i>), Spotted deer (<i>Axis axis</i>), Wild hare (<i>Lepus nigricollis</i>), Mouse deer (<i>Moschiola meminna</i>)	Gorakapalassa, Kaaravilagala, Kahalle, Kande Gama, Moragollagama, Olombawa, Parawahagama, Raswehera, Ussana, Wijithapura
Human-animal Conflict leading to death of humans and damages to property and death and injury to animals	Dambewatuna, Galkiriyagama, Halmillawa, Herathgama, Kalagama, Kande gama, Makulpotha, Makulu gaswewa, Moragollagama, Palagala, Seenakgala, Siyabalangamuwa, Udubadderuppa, Watakoluwawa, Uduruwa, Ulpathagama
Illegal human settlements and housing development projects	Ambangaswewa, Kalugala, Kandulugamuwa, Karawilagala, Nikiniyagama, Palagala, Kandegama-Wijithapura Fisheries village, Shashthra welliya
Use of grazing grounds within sanctuary for cattle grazing	Balaluwewa, Dummeeya, Kala Wewa, Kolabu Ela, Palbandityawa, Parawahagama
Incidents of intentional fire	Ambagas wewa, Bambaragalayaya, Dummeeya, Gomadiyagala, Goraka palassa
Illegal Fishing	Balalu wewa, Hakwatunawa, Hempitigama Wewa, Kala Wewa, Kathnoruwa wewa and Siyabalangamuwa reservoirs

Tree felling is sporadic and it practiced intentionally to encroach state land at some locations. In some parts of the sanctuary, overnight clearing of state land for unlawful acquiring has occurred in the past. Dry mixed evergreen forest found in this aream harbours valuable timber species which are extracted illegally.

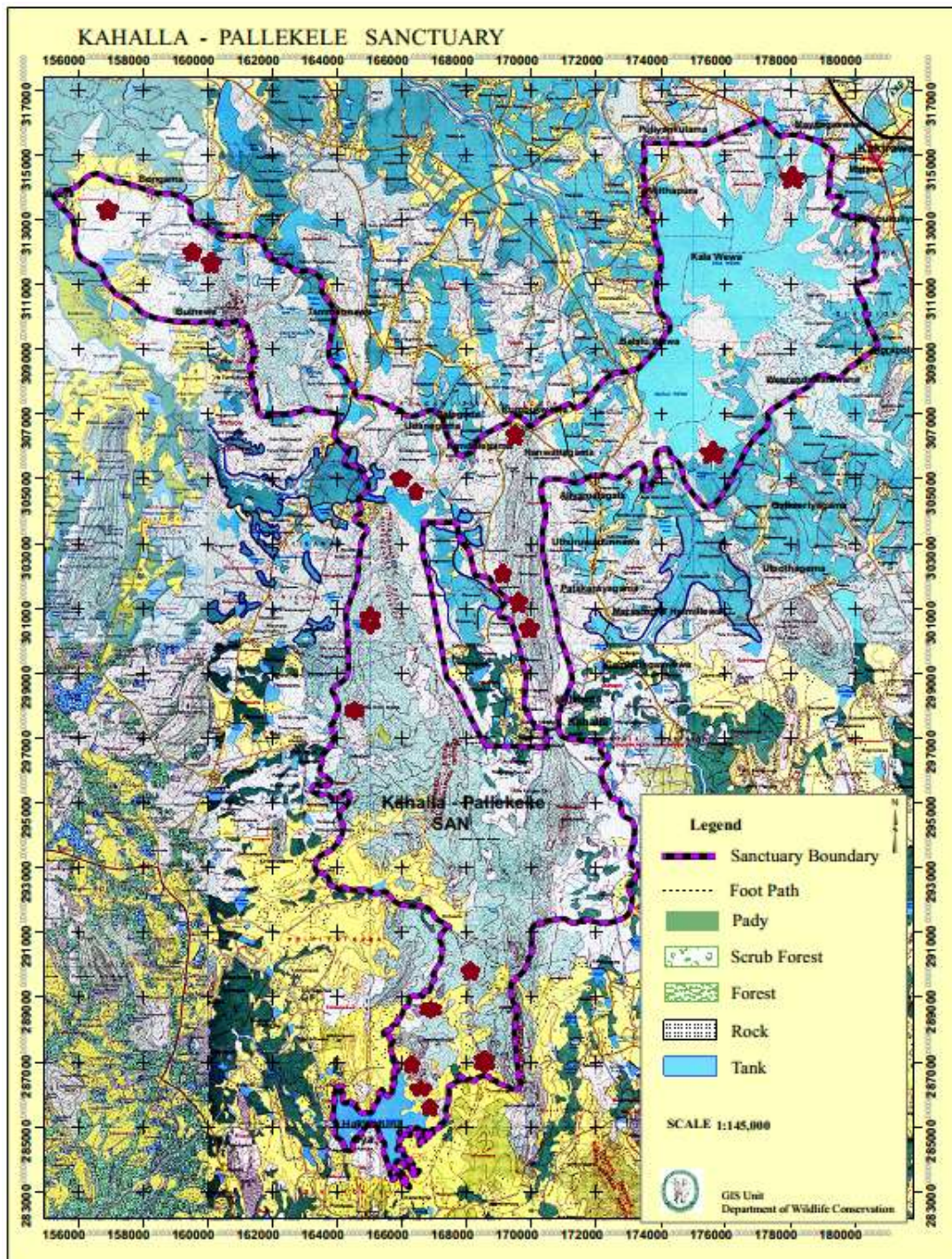


Figure 11: The main areas of tree feeling and firewood collection (denoted by maroon color symbol)

Apart from wild boar (*Sus scrofa*), incidences of poaching of members of deer family, mainly spotted deer (*Axis axis*) and mouse deer (*Moschiola meminna*) are reported. Hunting has almost wiped off populations of sambar deer (*Cervus unicolor*) from the sanctuary. Poaching remains a critical problem with a direct market in the vicinity.

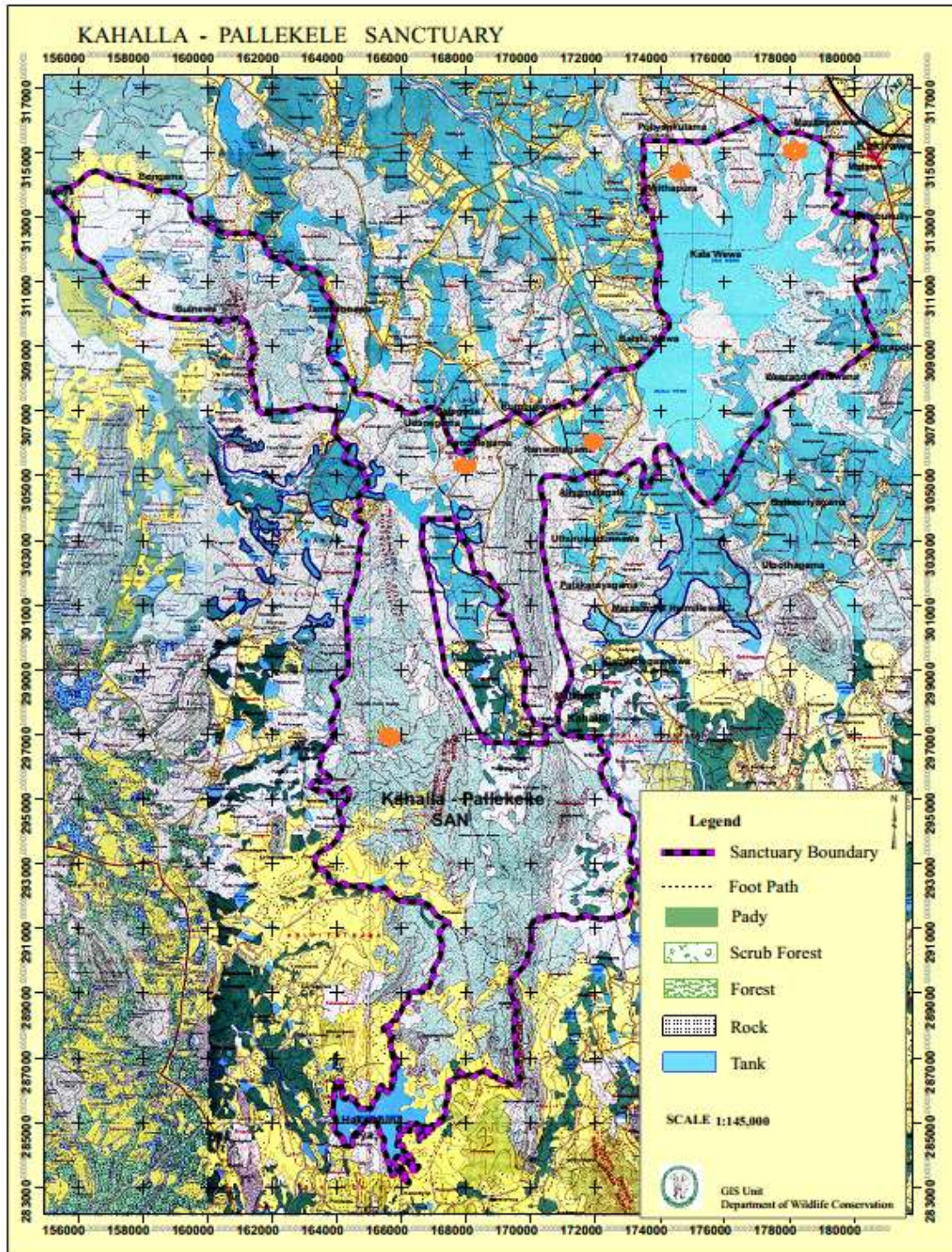


Figure 12: Key areas of hunting (denoted by orange colour stars)

Human animal conflicts are due to many species, mainly elephant (*Elephas maximus*), toque macaque (*Macaca sinica*), Grey Langur (*Semnopithecus priam*), Porcupine (*Hystrix indica*), peafowl (*Pavo cristatus*) and giant squirrel (*Ratufa macroura*). The main crops damaged by these species are paddy, vegetables, cereals, legumes and fruits. Populations are also increasing within the sanctuary as well as in the vicinity.

Human elephant conflict data from the area suggest inadequacy of the current protective measures. In KPK, elephant fences have been strategically erected in most places. However, due to presence of some bottlenecks in key elephant routes that are currently occupied by people, elephant fence is not complete. At the same time, elephants are found in both sides of electric fences and the fences in some locations acts as a barrier for their movement from human habitations. Outside the sanctuary, associated with fragmented forests and catchments of reservoirs, elephant

are found roaming the area.

Figure 13 depicts the details of human elephant conflict in the area. Finding solutions for human elephant conflict remains a top priority. Additionally, inundation of Maha Kithula and Maha Kirula (combined area is 342 ha) will further reduce the foraging area for elephants.

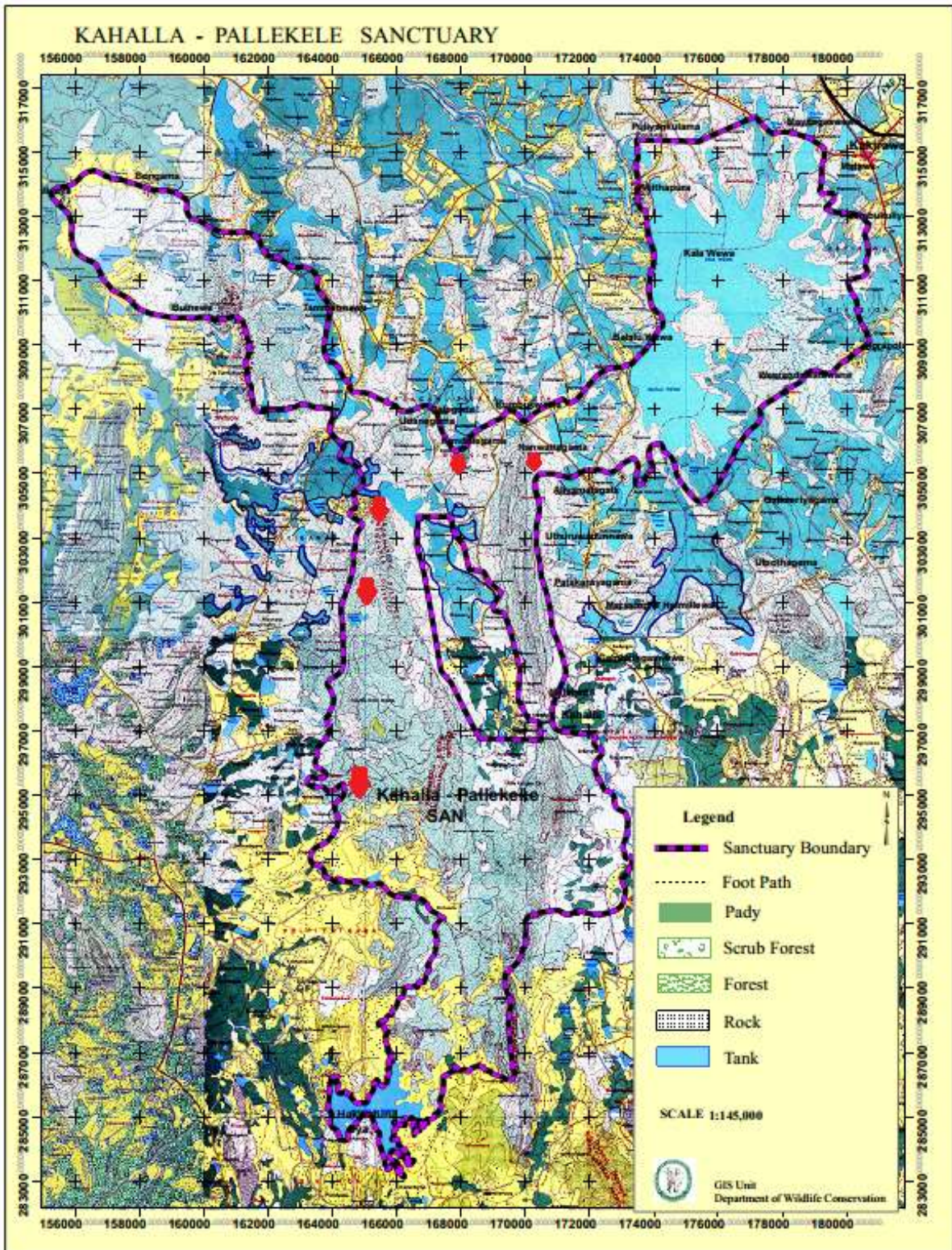


Figure 13: The areas of major human animal conflict (denoted by red color arrows)

Table 7: Elephant deaths of Kurunegala District of North Western Province in 2013. (Relevant Divisional Secretariats are given in bold letters)

Date	Divisional Secretariat	Age (years)	Reason for the death
22.02.2013	Nikawaratiya	15-20	Gun shot
29.03.2013	Mahawa	30	Electric shock
29.03.2013	Mahawa	4	Electric shock
22.04.2013	Ahatuwewa	30-35	Gun shot
22.04.2013	Ahatuwewa	01week	Gun shot
29.05.2013	Galgamuwa	1	Internal body problem
09.06.2013	Ahatuwewa	25-30	Electric shock
08.08.2013	Polpithigama	25	Poison
14.08.2013	Mahawa	30	Cannot conclude
16.09.2013	Ahatuwewa	8-10	Cannot conclude
22.12.2013	Galgamuwa	25-30	Poison

Table 8: Elephant deaths in Anuradhapura district in 2013

Date	Divisional Secretariat	Age (Years)	Reason for the death
13.01.2013	Palugaswewa	Not known	Not known
23.01.2013	Thirappane	35	Gun shot
25.01.2013	Thirappane	8	Gun shot
25.01.2013	Palugaswewa	40	Electric shock
05.02.2013	Madadayama Nuwaragam Palatha	30	Electric shock
22.02.2013	Palugaswewa	35	Electric shock
22.02.2013	Palugaswewa	40	Electric shock
12.03.2013	Thirappana	15	Spread of wounds
18.03.2013	Kekirawa	20	Gun shot
08.05.2013	Kekirawa	35	Gun shot
03.09.2013	Palugaswewa	10	Train accident
18.10.2013	Thirappana	35-40	Spread of wounds
26.10.2013	Thirappana	45	Natural death
07.12.2013	Kekirawa	1 Day	Natural death
09.12.2013	Palugaswewa	25	Train accident
11.12.2013	Kekirawa	35	Gun shot

Table 9: Elephant deaths in Kurunegala district in 2014

Date	Divisional Secretariat	Age	Reason for the death
07.02.2014	Ehatuwewa	25-30	Agro well
07.02.2014	Ehatuwewa	1	Agro well
09.06.2014	Palagala	30	Agro well
08.08.2014	Galgamuwa	20-25	Gun shot
20.09.2014	Kekirawa	30	Gun shot
20.12.2014	Abanpola	3-4	Train collision
20.12.2014	Abanpola	3-4	Train collision
23.12.2014	Galgamuwa	25-30	Septicaemia

Table 10: Elephant deaths in Anuradhapura district in 2014

Date	Divisional Secretariat	Age	Reason for the death
09.01.2014	Madyama Nuwaragam Palatha	20	Electric shock
23.01.2014	Madyama Nuwaragam Palatha	25	Electric shock
24.01.2014	Palugaswewa	30	Not known
02.02.2014	Thirappane	45	Gun Shot
09.03.2014	Palugaswewa	30	Gun Shot
24.05.2014	Kekirawa	50-55	Attack from a tusker
05.07.2014	Madyama Nuwaragam Palatha	25-30	Gun Shot
05.07.2014	Kekirawa	40-45	Train collision
30.09.2014	Kekirawa	45	Gun Shot
20.09.2014	Thirappane	Not known	Hakkapatas
13.10.2014	Kekirawa	4	Hakkapatas
28.10.2014	Kahatagasdigiya	4 months	Attack from another elephant

Table 11: Elephant deaths in Kurunegala district in 2015

Date	Divisional Secretariat	Age	Reason for the Death
02.01.2015	Polpithigama	1	Worms
05.01.2015	Mahawa	15-20	Gun shot
11.01.2015	Ahatuwewa	30	Gun shot
15.05.2015	Ahatuwewa	15	Electric shock
18.07.2015	Kekirawa	38	Septicaemia

20.08.2015	Ahatuwewa	4-5	Poison
29.08.2015	Mahawa	25-30	Gun shot
09.09.2015	Polpithigama	40	Gun shot
14.09.2015	Galgamuwa	10-12	Poison
25.09.2015	Kakirawa	2	Hakkapatas
16.10.2015	Galgamuwa	15-20	Train collision

Table 12: Elephant deaths in Anuradhapura district in 2015

Date	Divisional Secretariat	Age	Reason for the Death
07.03.2015	Thirappane	35	Gun Shot
13.04.2015	Kekirawa	25	Electric shock
11.08.2015	Kekirawa	08	Hakkapatas
10.09.2015	Thirappane	45	Hakkapatas
19.09.2015	Kahatagasdigiliya	08-10	Hakkapatas
28.10.2015	Thirappane	52-56	Gun Shot
13.11.2015	Thirappane	35	Electric shock
16.11.2015	Madyama Nuwara gampalatha	20	Septicaemia
22.12.2015	Mihinthale	08	Gun Shot
22.12.2015	Thirappane	25	Electric shock

Table 13: Elephant deaths in Kurunegala district in 2016

Date	Divisional Secretariat	Age	Reason for the death
29.01.2016	Mahawa	8-10	Electric shock
01.02.2016	Galgamuwa	10-12	Hakkapatas
05.04.2016	Polpithigama	20-30	Not known
22.04.2016	Ehatuwewa	3	Damages to spinal chord
31.05.2016	Galgamuwa	30-35	Gun Shot
13.06.2016	Abanpola	35	Electric shock
17.06.2016	Polpithigama	15-20	Electric shock
09.07.2016	Galgamuwa	20-25	Gun Shot
19.08.2016	Abanpola	15-18	Gun Shot
31.08.2016	Galgamuwa	50	Poison
16.10.2016	Polpithigama	30-35	Toilet pit
19.10.2016	Galgamuwa	12-15	Poison

Table 14: Summary of the elephant deaths (relevant Divisional Secretariats are given in bold letters)

District	Divisional Secretariat	2010	2011	2012	2013
Kurunagala	Ehatuwewa	4	2	1	5
	Galgamuwa	3	4	6	1
	Mahawa	1	0		
	Ambanpola	1	4	3	0
	Polpithigama	0	1	5	1
	Giribawa	0	1	1	1
	Kotawehera	0	1		0
	Nikawaratiya			1	1
	Anamaduwa			1	0
	Wanatha willuwa			1	2
	Karuwalagaswewa			2	1
	Nawagaththegama				3
Anuradhapura	Galenbindunuwewa	1	2	0	1
	Thirappane	3	4	1	5
	Kekirawa	1	7	2	4
	Palagala	2	2		0
	Padawiya	1	0		0
	Kahatagasdigiya	1	3	2	1
	Madyama Nuwaragampalatha	5	2	1	1
	Wilachchiya	1	0	2	2
	Nachchaduwa	3	1	1	2
	Rambawa	2	0		0
	Ipalogama	2	1		1
	Palugaswewa	6	2	3	6
	Horowpathana	5	5	6	8
	Madawachchiya	3	2	4	3
	Thalawa		2	1	2
	Nochchiyagama		1	1	1
	Kabathigollawa	3	0	3	1
	Thanthirimale		1	0	0
Sampath Nuwara			1	0	
Puttalam	Pooliyankulama	0	0		
	Nawagaththegama	4	3	4	
	Karuwalagaswewa	2	4	7	
	Wanathawilluwa	1	1	1	
	Puttalam	0	4	1	
Mannar	Moosali	0	4	3	
	Kalpitiya	0	0		
	Nathtan			2	2
	Potmony			1	
Vauniar	Settikulama	0	2	6	2
	Palugaswewa		1		

	Vauniar North		1	5	4
	Vauniar South				1
	Sampath Nuwara		1	1	
	Nadunkarni			1	
Mullaitivu	Mullaitivu		1		0
	Oddusudan		1	1	1
Polonnaruwa	Alahara	2	2		1
	Dimbulagala	5	11	7	8
	Thamankaduwa	2	7	2	4
	Welikanda	6	8	4	8
	Higurakgoda	16	11	7	4
	Dambulla	3	0	2	1
	Madirigiriya	0	6	1	3
	Palugaswewa		1	1	0
	Bakamoona	0	1	1	
	Lankapura				2
Trincomalee	Kiran			4	
	Town and Kadawath			1	
	Werugal	0	1		1
	Serunuwara	3	4	3	4
	Morawewa	7	11	7	6
	Pulmoode	1	0		1
	Kuchchaweli	2	3		3
	Kanthale	10	7	6	8
	Kinniya	2	1	5	3
	Gomarankadawala	2	4	2	4
	Thagarahakadawal	1	2	3	2
	Moothur	0	2	1	0
Ampara	Dehiaththakandiya			2	
	Padiyathalawa			1	

Table 15: Reports of elephant deaths in 2015 and 2016 in North Western Province

District	Divisional Secretariat	Date of the death	Place	Reason	Male/ Female	Age Years
Kurunegala	Polpithigama	02.01.2015	Kahallepallekele Bambaragala	Worms	M	1
Kurunegala	Ahatuwewa	11.01.2015	MadadenigamaH andunwatta	Gun shot	F	30
Kurunegala	Ahatuwewa	15.05.2015	Mudiyannagama , Gonagama	Electric shock	M	15
Anuradhapura	Kakirawa	18.07.2015	Kalawau pitiya	Wound	M	38
Kurunegala	Ahatuwewa	20.08.2015	Rathnadiul wewa, Urapalayagama	Poison	M	4-5
Kurunegala	Polpithigama	09.09.2015	Hakwatunawa Wewa	Gun shot	M	40
Anuradhapura	Kakirawa	25.09.2015	Kala Wewa , Theliyaya	Hakkapata s	M	2
Kurunegala	Ahatuwewa	22.04.2016	Mahaweli welyaya, 08 canal area	Damages to spinal chord	M	3
Kurunegala	Polpithigama	17.06.2016	Dombagamuwa area	Electric shock	M	15-20
Kurunegala	Polpithigama	16.10.2016	Kumbuk kadawala	Toilet pit	M	30-35

Table 16: Report of human deaths in 2015 and 2016 in North Western Province

Date	Age & sex	Divisional Secretariat
20.04.2015	(60) M	Polpithigama
22.04.2015	(29) M	Ehatuwewa
26.11.2015	(65) M	Polpithigama
25.02.2016	(65) M	Ehatuwewa

Table 17: Summary of the damages by elephants

Divisional Secretariat	2014		2015		2016. Up to 31 07 2016	
	Property Damages	Body damages	Property Damages	Body damages	Property Damages	Body damages
Polpithigama	1				1	
Ehatuwewa	23	2	32		12	1
Palagala	15	2	3		11	
Kekirawa	8		11	1	2	1
Galnawa			1		3	

At present, the actual area of encroachment of state land is not established. In addition to illegal encroachment of land, several types of land give aways have happened since declaration. This includes construction of housing schemes within the sanctuary by government. Resolving the ownership of lands and land rights remains a top priority along with identifying the boundaries of villages within the sanctuary.

Table 3 provides information on villages found within the sanctuary. The villages that were excluded from the sanctuary at the time of declaration are given in Table 3.

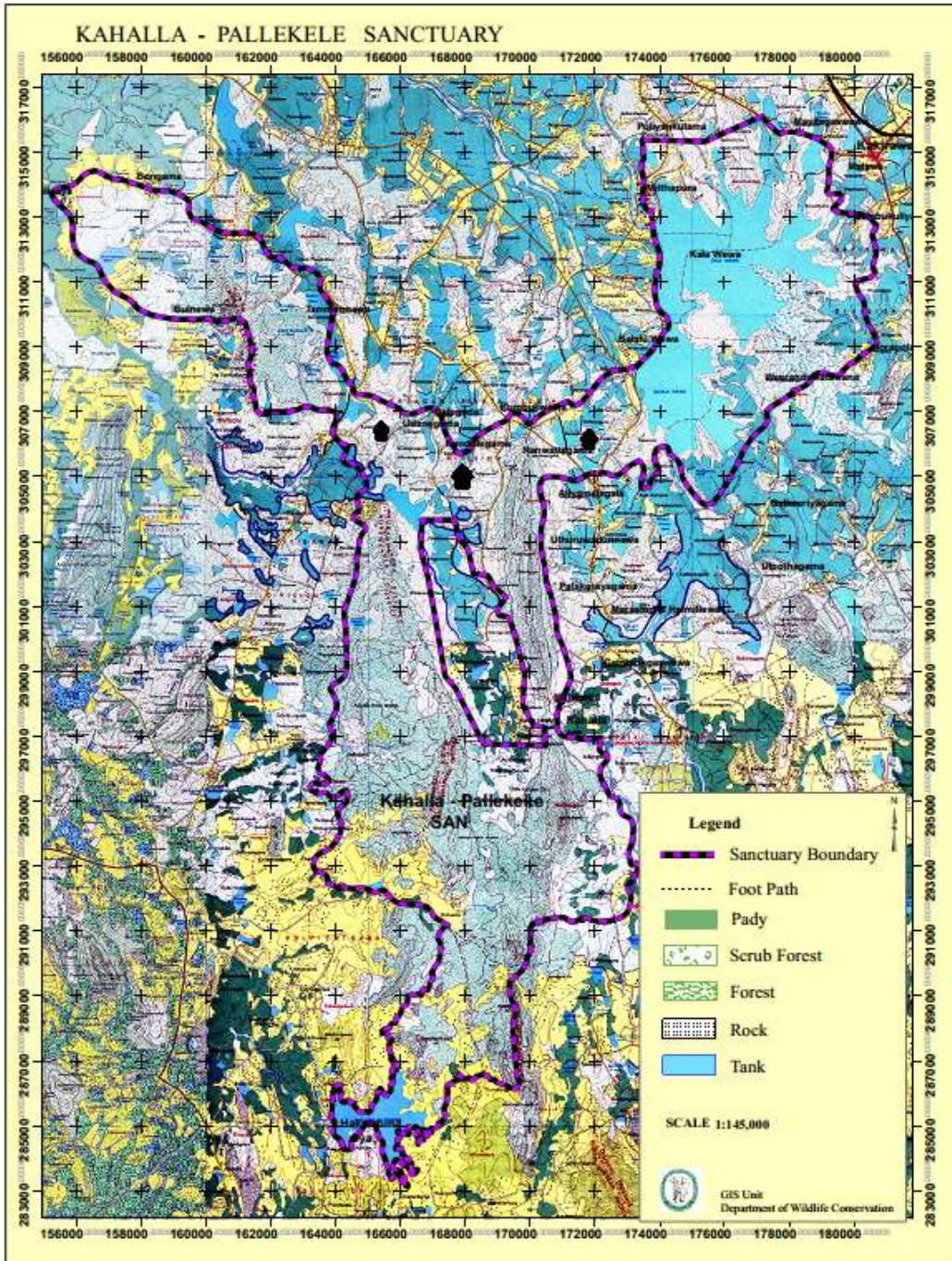


Figure 14: The main areas of illegal human settlement (denoted by black colour arrows)

Lack of land for cattle grazing has resulted in large number of cattle competing with elephants and grazers for fodder. Cattle roam freely inside the sanctuary and grazing is intense in catchments of seasonal and minor perennial reservoirs.

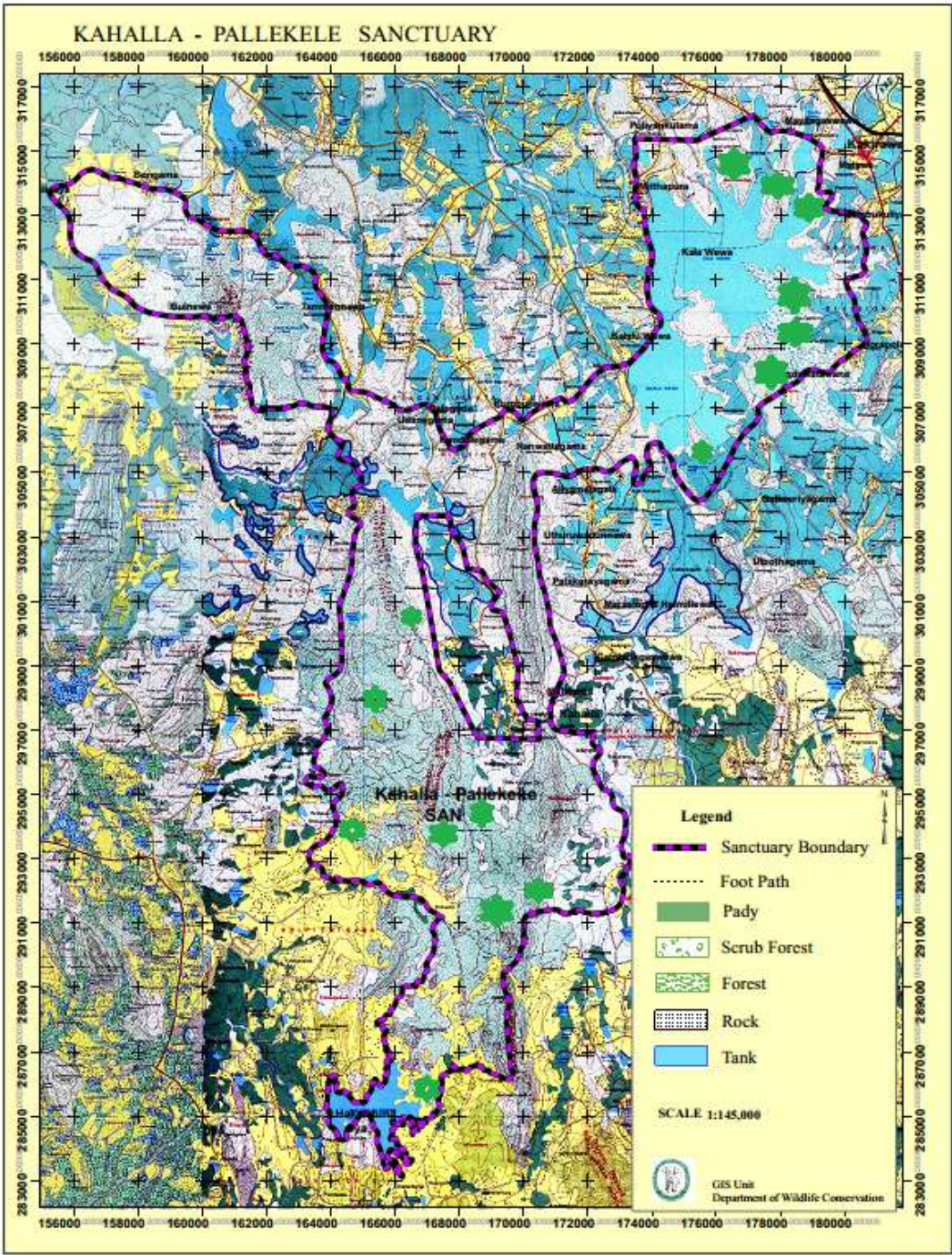


Figure 15: The areas of grazing (denoted by green symbols)

Fires are intentionally set and most of the incidences of fire coincide with the onset of chena cultivation.

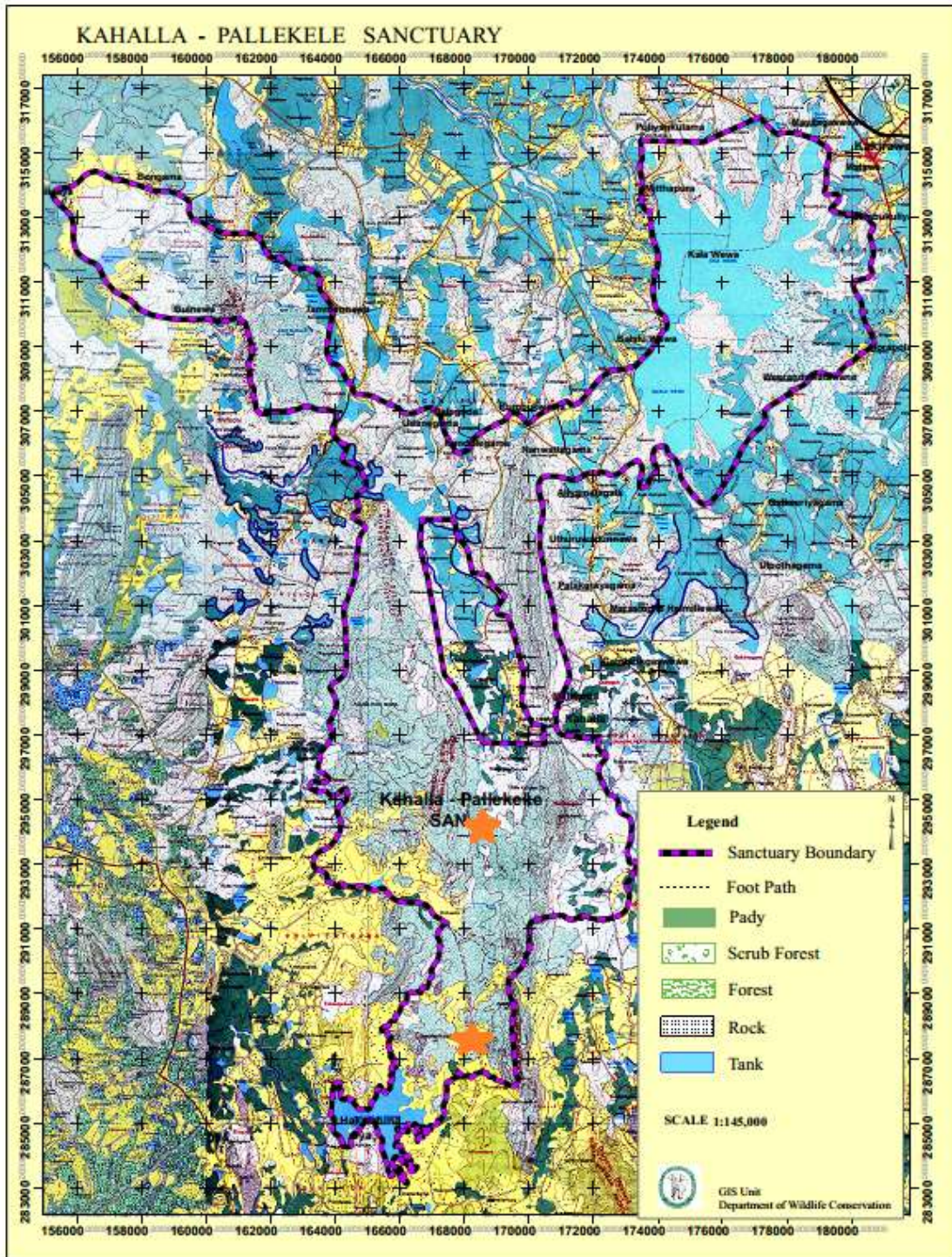


Figure 16: The areas of fire incidents (denoted by yellow color symbol)

Kala Wewa and Balalu wewa are two of the reservoirs annually stocked by NAQDA for fresh water culture based fishery. Both reservoirs have well established fisheries activities operated through fisheries societies. In recent years, the society members are being registered by the DWC. Exotic carps and tilapia are the main fish species stocked by NAQDA. In some seasonal reservoirs, village auctions the reservoir to a third party at the onset of drought. The main illegal fishing technique used is mono filament netting. Non mechanized catamaran boats are used in major reservoirs.

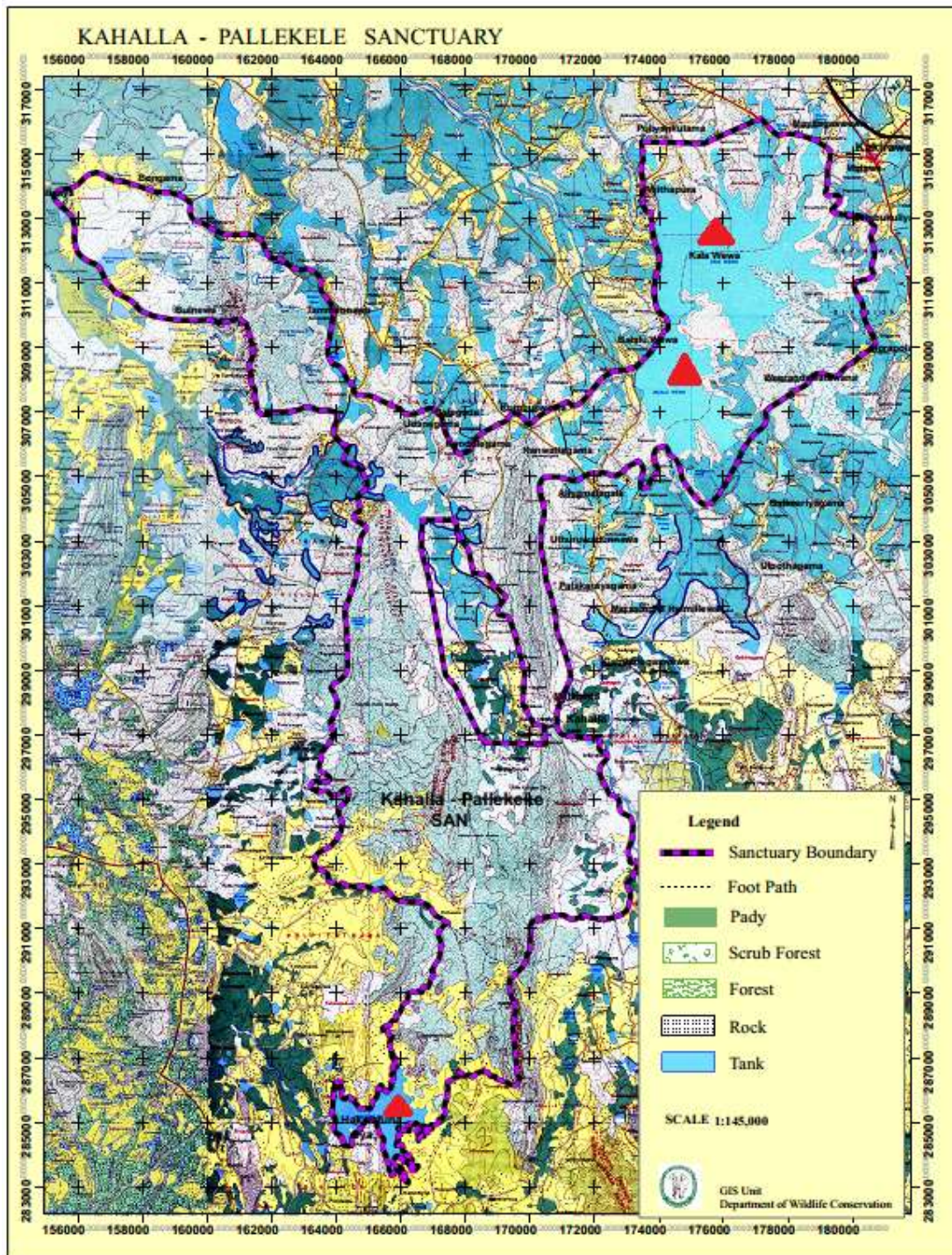


Figure 17: The main areas of illegal fishing (denoted by red color symbols)

5. Proposed Management Plan

Kala Wewa and Kahalle-Pallekele protected area complex (KW & KP PAC) management plan is prepared for five years starting from 2018 to 2022 with 2017 as the preparatory year with short term goals. The complex includes Kala Wewa National Park, remaining area of Kahalle-Pallekele Sanctuary which is proposed to be converted into two new protected area categories, namely proposed Kahalle and Palle Mountains National Park and proposed Managed Elephant Reserve (MER) which will include areas of current sanctuary that will be left aside from the proposed national park and other important forested areas to be identified jointly with FD. The two mountain ranges will be declared as a national park for the purpose of protecting the catchment of the area.

Kala Wewa and Kahalle-Pallekele protected area complex management plan is implemented to achieve the following vision.

Vision

Kala Weva and Kahalle-Pallekele protected area complex serving the nation with a rich biodiversity and healthy ecosystems with preserved archaeological value

Kala Wewa and Kahalle-Pallekele protected area complex management plan requires support and collaboration from key stakeholders for implementation. This is due to the complexity in the types of protected areas that will come into operation with this management plan and the socio economic significance of the area. DWC needs to implement the management plan at the regional level with other key stakeholders by forming a project implementation committee. The proposed structure is as follows;

Headed by the Assistant Director of the region and proposed park wardens for Kala Wewa National park and proposed Kahalle and Palle Mountains National park and rangers of proposed Kahalle-Pallekele Managed Elephant Reserve, DWC will formally appoint a regional implementation committee. This will include key stakeholders such as Department of Forest, Divisional Secretaries of the region, Mahaweli Development Authority, Department of Irrigation, Department of Agriculture, Agrarian Services Department, Tourist Board, CEA, NAQDA and civil society representatives. This implementation committee will jointly implement the management plan with DWC and would report to DCC of Kurunegala and Anuradhapura in turn. Since regional environmental committees are already established and are attended by DWC and other committee members, information flow will be rapid. This committee will be responsible for ground level implementation, communication and progress monitoring. Budgetary allocations of management plan will be through DWC and other institutions. The committee will request and disburse funds. The chairman of this committee is Assistant Director of the region and he will be reporting to Deputy Director (Operations) of the head office and other divisional heads and DG of DWC. DG of DWC in turn will report and liaise with heads of key stakeholder institutions and Ministry of Sustainable Development and Wildlife and Ministry of Mahaweli Development and Environment (Figure 18).

An internal quality assurance mechanism responsible for implementation of independent monitoring and evaluations (M & E) at stipulated time periods to adjust the plan accordingly is required. The evaluation of the plan for progress monitoring and required modifications should be the responsibility of Deputy Director (Operations) of DWC and will be conducted by an independently appointed committee. The schematic diagram given below indicates the proposed management structure.

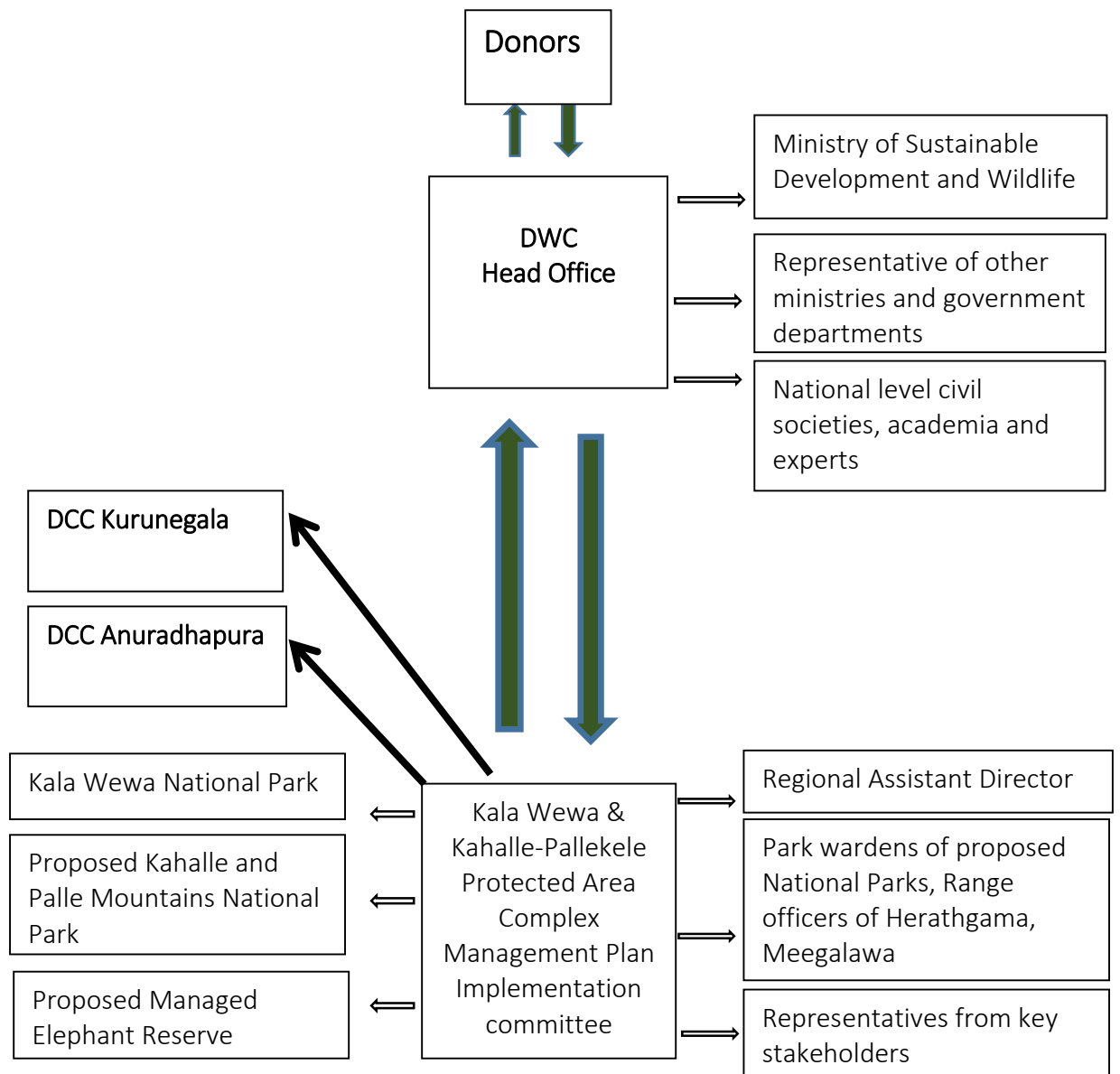


Figure 18: Schematic diagram of proposed Project Implementation structure

Goals of the project

Two types of goals are set, namely short term and long term goals. Achieving short term goals are a precursor to achieve the long term goals. Long term goals are divided into operational, environmental, socio economic and governance goals and achieving all four types of goals is a necessity to reach the vision set for this management plan.

Short term goals should be achieved within one year of implementation. Hence, the strategic actions of short term goals should start in 2017. All the long term goals have been prepared to eliminate, reduce and control the threats and issues identified by stakeholders and also from published literature.

Short term goal 1

To resolve existing contradictions and conflicts over land ownership to warrant a supportive and an enabling stakeholder network

Short term goal 2

To operationize key stakeholders to execute the strategies

|

In order to achieve the goals, each goal is divided into objectives. Objectives specifically target identified threats hence, indicator have also been set for monitoring of progress and achieving of targets. Each goal is presented with strategic actions and a Gantt Chart depicting the expected time of start and completion of each activity.

Vision

Kala Weva and Kahalle Pallekele Protected Area Complex serving the nation with a rich biodiversity and healthy ecosystems with preserved archaeological value

Governance goal

To warrant an enabling governance framework strengthened to manage KW & KP PAC with committed participation from stakeholders and to the maximum satisfaction of all.

Socio economic goal

To safeguard optimum living conditions to community and satisfaction from services derived by KW & KP PAC to all.

Ecological goal

To ensure a thriving ecosystem rich in wildlife with long term integrity and resilience.

Operational goal

To operationalize an enabling KW & KP PAC management environment to effectively serve ecological and human needs.

Expected outcomes from short term goals

STG 1: To resolve existing contradictions and conflicts over land ownership to warrant a supportive and an enabling stakeholder network

STG 1.1: Properly identified boundaries of existing sanctuary and proposed protected areas
STG 1.2: Rights to land ownership are known
STG 1.3: Rights to land ownership and boundaries of proposed protected areas agreed upon

STG 2: To operationize key stakeholders to execute the strategies

STG 2.1: Members from key stakeholders are appointed to management plan implementation committee with TOR
STG 2.2: Infrastructure, finance and human resources are delivered

Strategic actions to achieve goals

Tables given below (18 and 19) indicate the objectives and strategic actions to achieve the short term goals.

STG 1: To resolve existing contradictions and conflicts over land ownership to warrant a supportive and an enabling stakeholder network

STG 1.1: Properly identified boundaries of existing sanctuary and proposed protected areas
STG 1.2: Rights to land ownership are known
STG 1.3: Rights to land ownership and boundaries of proposed protected areas agreed upon

Table 18: Objectives and actions for STG 1.1, 1.2 and 1.3

Outcomes from operational goal	Objectives	Strategic actions	2017/2018				
			May June	July Aug.	Sep. Oct.	Nov. Dec.	Jan. Feb.
STG 1.1 Properly identified boundaries of existing sanctuary and proposed protected areas	STG 1.1.1 Established boundaries of PA and proposed PA	STG 1.1.1.1 Identify boundaries of sanctuary as per the gazetted declaration					
		STG 1.1.1.2 Identify the areas under FD concurrently					
		STG 1.1.1.3 Purchase aerial photography/ drone images and conduct ground truthing					
		STG 1.1.1.4 Identify the boundaries of Kala Wewa National Park, and proposed Kahalle and Palle Mountains National Park and proposed KPK Managed Elephant Reserve (MER) with other government stakeholders and community					
		STG 1.1.1.5 Communicate identified boundaries to all stakeholders with a mandatory period for stakeholder responses to address the grievances and issues					

		STG 1.1.1.6 Conduct strategic awareness sessions for all stakeholders regarding proposed changes and their implications to community							
	STG 1.1.2 Established boundaries of all villages within PA	STG 1.1.2.1 Identify and document all villages within existing and proposed PAs with the assistance of DS and Dis. S							
		STG 1.1.2.2 Conduct community awareness sessions to all villages on proposed changes to PA declarations and its implications to community							
		STG 1.1.2.3 Identify the village boundaries and the land ownerships within each village							
		STG 1.1.2.4 Identify the villages and current settlements to be excluded from proposed Kahalle and Palle Mountains National Park							
		STG 1.1.2.5 Identify the areas that needs to reforested and restored to provide maximum environmental services to villagers							
		STG 1.1.2.6 Settle land ownership disputes according to current land settlement procedures							
STG 1.2 Rights to land ownership is known		STG 1.2.1 Established landownerships duly communicated to relevant parties	STG 1.2.1.1 Notify details of land ownership within PAs to communities						
	STG 1.2.1.2 Resolve disputes with the assistance of DS								

		STG 1.2.1.3 Establish extent of land grab and determine the procedure for settling land disputes in proposed PAs					
STG 1.3 Boundaries of proposed protected areas agreed upon	STG 1.3.1 Boundaries of lands to be included into proposed PA are officially notified	STG 1.3.1.1 Prepare proposed PA boundaries and communicate the information with the assistance of DS of the region					
		STG 1.3.1.2 Prepare gazette notifications					
		STG 1.3.1.3 Prepare and distribute maps of the proposed and existing PAs to all stakeholders					

STG 2: To operationize key stakeholders to execute the strategies

STG 2.1: Members from key stakeholders are appointed to management plan implementation committee with TOR
STG 2.2: Infrastructure, finance and human resources are delivered

Table 19: Objectives and actions for STG 2.1 and 2.2

Outcomes from operational goal	Objectives	Strategic actions	2017/2018				
			May June	May June	May June	May June	May June
STG 2.1 Members from key stakeholders are appointed to management plan implementation committee with TOR	STG 2.1.1 KW & KP PAC management plan implementation committee in place and functioning	STG 2.1.1.1 Officially appoint members in line with current procedures and determine the TOR of members					
		STG 2.1.1.2 KW & KP PAC management plan implementation committee review the management plan and prioritize the actions					

STG 2.2 Finances, human and other physical resources are delivered	STG 2.2.1 Duly functioning project implementation committee established with all required resources	STG 2.2.1.1 Appoint a conflict resolution facilitator cum communication officer and develop a communication action plan					
		STG 2.2.1.2 Contact relevant donors and procure finances for the implementation					
		STG 2.2.1.3 Set up a M & E system					

Achieving these short term goals is essential to win the good will of the stakeholders and to clarify the current boundary and land grab disputes. After achieving the above short term goals and setting up an implementation committee, strategic actions of long term goals should be implemented.

One key issue during the implementation of the plan is to determine how community can be sufficiently rewarded to engage in reforestation of identified land as an income generation. Since typical community forestry with timber harvesting cannot be practiced in lands under DWC, new approaches suitable for each locality should be identified. Cultivation of selected wild plants and providing financial incentives for reforestation should be tested.

Expected outcomes from long term goals

1. Governance goal:

To warrant an enabling governance framework strengthened to manage KW & KP PAC with committed participation from stakeholders and to the maximum satisfaction of all.

Expected outcomes from Governance Goal

1.1 Enhanced inter-agency coordination with key stakeholders ensuring good governance.

1.2 Stakeholders operating within their limits in a protected area and fully committed to betterment of ecological and human wellbeing.

2. Socio economic goal:

To safeguard optimum living conditions to community and satisfaction from services derived by KW & KP PAC to all.

Expected outcomes from Socio economic Goal

2.1 Income and recognition for PA through sustainable and responsible ecosystem services trade.

2.2 Income, stability and better standards of life to communities within the PA and in periphery through sustainable and responsible ecosystem services and products trade.

2.2 Safe living conditions, access to water and new environmentally sustainable livelihood opportunities in existing and proposed protected areas.

3. Environmental goal

To ensure a thriving ecosystem rich in wildlife with long term integrity and resilience.

Expected outcomes from Environmental Goal

3.1 Ecosystems functioning optimally thus positively impacting the biodiversity, population sizes, species movements and interactions.

3.2 Ensured health and safety of wild animals as well as adjacent human communities through improved co-existence and minimal negative anthropogenic activities.

3.3 Updated status and distribution of fauna and flora, distribution of vegetation types, water resources and other natural resources and man-made features in KW and KP Protected Area Complex.

4. Operational goal

To operationalize an enabling KW & KP PAC management environment to effectively serve ecological and human needs.

Expected outcomes from Operational Goal

4.1 Properly well demarcated and gazetted national park boundaries with one-mile radius of development restricted area and Managed Elephant Reserve.

4.2 Rights to land ownership agreed and obeyed by all parties.

4.3 Properly well erected and maintained elephant fences operated with community participation encircling the villages and their land.

4.4 Animal and human friendly, functional network of water ways and access roads with minimal disturbance to habitat use and access to animals.

4.5 Knowledgeable, skilled, competent and resourceful DWC staff serving KW & KP PAC.

1. Governance Goal

Governance Goal

To warrant an enabling governance framework strengthened to manage KW & KP PAC with committed participation from stakeholders and to the maximum satisfaction of all.

1.1 Enhanced inter-agency coordination with key stakeholders ensuring good governance

1.2 Stakeholders operating within their limits in a protected area and fully committed to betterment of ecological and human wellbeing

Table 20: Outcomes from the governance goal 1.1 and 1.2(Enhanced inter-agency coordination with key stakeholders ensuring good governance, Stakeholders operating within their limits in a protected area and fully committed to betterment of ecological and human wellbeing), objectives, strategic actions and intended time for the implementation

Outcome from Governance Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
1.1 Enhanced inter-agency coordination with key stakeholders ensuring good governance	1.1.1 Improved inter agency coordination at regional and national level	1.1.1.1 Establish KW & KP PAC management plan implementation committee with sufficient resources, finances and infrastructure					
		1.1.1.2 Conduct monthly meetings during the phase of implementation					
		1.1.1.3 Share annual plans and updated maps with key stakeholders					
		1.1.1.4 Secure an agenda item in DCC of					

	Anuradhapura and Kurunegala for updates and awareness creation regarding management measures				
	1.1.1.5 Participate to environment committees of the region				
	1.1.1.6 Conduct regular sessions with civil societies and provide updates on PA matters and management				
	1.1.1.7 Implement sensitization tours to key stakeholders				
	1.1.1.8 Conduct external audits on park management with stakeholder assistance				
	1.1.1.9 Train staff on communication skills, conflict resolution and record keeping				
	1.1.1.10 Develop a communication system to alert community on elephant movements, wildlife matters, local job opportunities and electric fence maintenance				

	1.1.2 Improved coordination with community living in MER and peripheral community.	1.1.2.1 Clear land right disputes and engage in community discussions through civil societies to maintain identified elephant corridors					
		1.1.2.2 Conduct awareness sessions to communities and school children on co-existence with wild animals, techniques, dos and don'ts					
		1.1.2.3 Ensure sustainable supply of services such as water to communities without compromising wildlife					
		1.1.2.4 Assist creating revolving funds with income related to PAC specially with environmentally friendly product development, organic crops, honey, eco-tourism and hiking in traditional villages					
	1.1.3 Established and operational decision making system that is	1.1.3.1 Invite civil societies to decision making processes and provide ample					

	transparent and consultation based	opportunities for commenting by formally appointing community members to implementation committee					
		1.1.3.2 Ensure all management documents and action plans are public documents and are available for reading and commenting at DS offices					
		1.1.3.3 Establish village based committees to erect and maintain electric fences around the key properties thus ensuring reduced crop, property damages and human deaths					
		1.1.3.4 Engage communities in erecting live fences and modifying electric fences as per the local needs					
		1.1.3.5. Keep records of all transactions					
1.2 Stakeholders operating within their limits in a protected area and fully committed to betterment of	1.2.1 Government institutions operating within PA with improved understanding of provisions of FFPO	1.2.1.1 Conduct regular meetings to key government stakeholders and political authorities on provisions of FFPO and adherence to					

ecological and human wellbeing		regulations					
		1.2.1.2 Arrange periodical surveys to ascertain the status of the park and communicate the outcomes with key stakeholders					
		1.2.1.3 Ensure environmental assessment of any mandatory developments within the park and adhere to proposed mitigations					

2. Socio economic goals

Socio economic goal

To safeguard optimum living conditions to community and satisfaction from services derived by KW & KP PAC to all

Expected outcomes from socio economic goal

2.1 Income and recognition for PA through sustainable and responsible ecosystem services trade.

2.2. Income, stability and better standards of life to communities within the PA and in periphery through sustainable and responsible ecosystem services and products trade.

2.3 Safe living conditions, access to water and new environmentally sustainable livelihood opportunities in existing and proposed protected areas.

Table 21: Outcomes from the socio-economic goal; Income for PA and adjacent communities through sustainable and responsible ecosystem services and products trade (2.1), objectives, strategic actions and intended time for the implementation

Outcomes from socio economic Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
2.1 Income and recognition for PA through sustainable and responsible ecosystem services trade	2.1.1 Increased sustainable income from KW & KP PAC	2.1.1.1 Construct a new visitor's centre with all amenities in Kala Wewa NP and proposed Kahalle and Palle Mountains National Park					
		2.1.1.2 Construct and maintain sanitary facilities in all main entrances and visitor stop overs					
		2.1.1.3 Recruit an architect to design and built accommodation in selected locations targeting					

	ecotourism				
	2.1.1.4 Procure minimal carbon/zero carbon emission boats and other water gear for reservoir based tourism				
	2.1.1.5 Develop an eco-tourism plan for Kala Wewa National Park focusing wildlife, archeology and heritage with opportunities for local communities to sell their products				
	2.1.1.6 Develop, print and sale pamphlets, books and other educational material on wildlife and archeology				
	2.1.1.7 Develop and regularly maintain a dedicated website				
	2.1.1.8 Plan and conduct paid excursions for winter migrations and other attractions				
	2.1.1.9 Develop nature trails in proposed Kahalle and Palle Mountains National Park				

Table 22: Outcomes from the socio-economic goal 2.2 (Income, stability and better standards of life to adjacent communities through sustainable and responsible ecosystem services and products trade), objectives, strategic actions and intended time for the implementation

Outcomes from socio economic Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
2.2 Income, stability and better standards of life to adjacent communities through sustainable and responsible ecosystem services and products trade	2.2.1 Increased sustainable income for communities within and in periphery	2.2.1.1 Procure a specialist on alternative livelihood and community development to develop a plan on introducing alterative income sources for communities within and in periphery that can be marketed in visitor centres and other franchises					
		2.2.1.2 Train communities within and in periphery on how to maintain amenities for B and B and "Home stay" with Tourist Board					
		2.2.1.3 With the collaboration of Tourist Board, and civil societies and DS, assist communities in learning basic cooking skills, housekeeping and hygiene and empower communities for					

eco-tourism					
2.2.1.4 Improve farming and water conservation skills of communities within and in the periphery					
2.2.1.5 Introduce organic farming and create a market for products near the proposed park entrances with DA (e.g.: Helabojin)					
2.2.1.6 Train and recruit seasonal staff for park management					
2.2.1.7 Train and recruit youths of the area as tour guides and use their service for hiking, nature trail management, species identification, archeological interpretations					
2.2.1.8 Conduct feasibility studies for value addition of products from the communities (e.g. Legumes shared with wild birds and produced organically).					
2.2.1.9 Introduce post harvesting techniques for fishery products with DF and					

		provide outlets for their sale					
	2.2.2 Contingency plans for disaster management are established and all relevant stakeholders are trained and made aware of actions	2.2.2.1 With DMC plan and prepare contingency plans for major irrigational canals and reservoirs					
		2.2.2.2 Train park officials and other stakeholders in using the plans					
		2.2.2.3 Procure essential equipment to manage disasters and conduct regular maintenance					

Table 23: Outcomes from the socio-economic goal 2.3 (Safe living conditions, access to water and new environmentally sustainable livelihood opportunities in existing and proposed protected areas), objectives, strategic actions and intended time for the implementation

Outcomes from socio economic Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
2.3 Safe living conditions, access to water and new environmentally sustainable livelihood opportunities in existing and proposed protected areas	2. 3.1 Well planned and established safe living conditions for communities within and in periphery	2.3.1.1 With community plan and identify the areas to be surrounded by electric fences in each village thus introducing community focused electric fencing in MER					
		2.3.1.2 Create awareness on use of agro chemicals and their impacts to humans and					

wildlife					
2.3.1.3 Create a roster for electric fence monitoring and upgrading					
2.3.1.4 Conduct assessments on water partitioning for humans and wildlife					
2.3.1.5 Create clusters of community managed forestation scheme on trial basis in degraded land					
2.3.1.6 With the assistance of an expert introduce alternative environmental friendly product development and post-harvest techniques					
2.3.1.7 Promote village based tourism with trained youth					
2.3.1.8 Ensure safe water canal systems in PA with adequate crossing for wild animals and humans					

3. Environmental Goal

Environmental Goal

To ensure a thriving ecosystem rich in wildlife with long term integrity and resilience

Expected outcomes from environmental goal

- 3.1 Updated status and distribution of fauna and flora, distribution of vegetation types, water resources and other natural resources and man-made features in KW & KP PAC
- 3.2 Ecosystems functioning optimally thus positively impacting the biodiversity, population sizes, species movements and interactions
- 3.3 Ensured health and safety of wild animals as well as adjacent human communities through improved co- existence and minimal negative anthropogenic activities.

Table 24: Outcomes from the environmental goal 3.1 (Updated status, distribution of fauna , flora, vegetation types, water resources, other natural resources and man-made features of KW & KP PAC), objectives, strategic actions and intended time for the implementation

Outcomes from Environmental Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
3.1 Updated status and distribution of fauna and flora, distribution of vegetation types, water resources and other natural resources and man-made features in KW & KP PAC	3.1.1 Baseline data of bio physical environment is established for management, monitoring and scientific purposes	3.1.1.1 (a) Collate data on KW & KP PAC and conduct a gap analysis of information and update the last resource inventory conducted in 1998					
		3.1.1.1 (b) Purchase latest satellite images for KW & KP PAC					
		3.1.1.2 Prepare land cover, vegetation type and land use maps for the KW & KP PAC					
		3.1.1.3 Conduct ground					

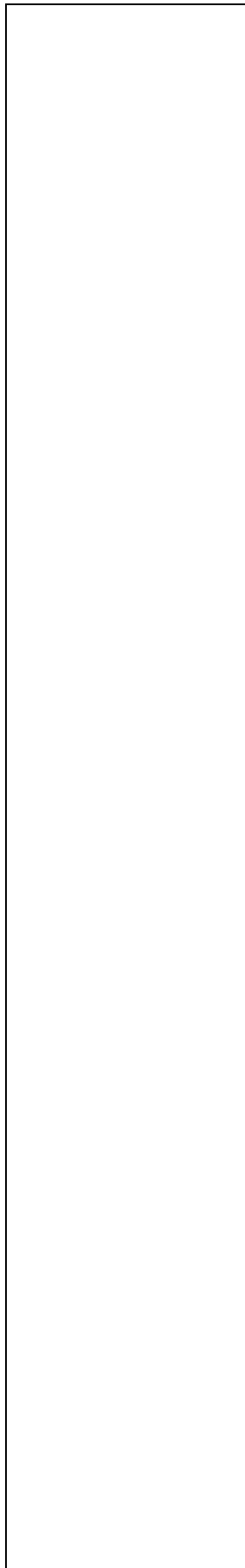
thruthing exercises				
3.1.1.4 Commission a research for systematic surveying and sampling of selected flora and fauna and update the resource inventory including newly proposed areas to MER				
3.1.1.5 Establish a water resource inventory for PA and establish water quality, sources, dynamics, water regime, seasonality, distribution and water use				
3.1.1.6 Conduct a systematic survey on types and current distribution of invasives in the KW & KP PAC and prepare a strategic plan for management of invasives within and around jointly with FD, BDS and NAQDA				
3.1.1.7 Update the current status of archeologically important sites within PAC and develop a strategic action plan for joint supervision and				

preservation of sites				
3.1.1.8 Actively seek expertise and commission studies on migration pattern of elephants, with academia and other experts				
3.1.1.9 Develop a MOU with reputed environmental research organizations for annual bird counts in KW & KP PAC and conduct census				
3.1.1.10 Conduct aquatic habitat restoration in areas where cascade systems have deteriorated due to invasives and siltation				
3.1.1.11 With NAQDA determine the fish releases to reservoirs with minimal impact to native fish fauna				
3.1.1.12 Assess the impact of removal of sand and other minerals from PA and surrounding and adhere to env. Assessments prior to extraction and blasting				

		3.1.1.13 Develop a strategic action to sustainably use surface water flows used by communities and wildlife in two mountain ranges at KP PAC with the assistance of GA and community					
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Table 25: Outcomes from the environmental goal 3.2 (Ecosystems functioning optimally thus positively impacting the biodiversity, population sizes, species movements and interactions), objectives, strategic actions and intended time for the implementation

Outcomes from Environmental Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
3.2 Ecosystems functioning optimally thus positively impacting the biodiversity, population sizes, species movements and interactions	3.2.1 Core areas for conservation are identified and are given the maximum protection whilst other areas are suitably zoned and managed for the intended purpose/s	3.2.1.1 Demarcate the identified core area which is the two mountains (at KP PAC) sans villages as conservation only zone and declare as NP					
		3.2.1.2 Initiate habitat management strategies such as reforestation, removal of mono culture timber and invasives in conservation area as per the identified threats					
		3.2.1.3 Conduct a fodder analysis for selected herbivores					



3.2.2
Identified habitats
formally affected
by anthropogenic
pressures are
restored

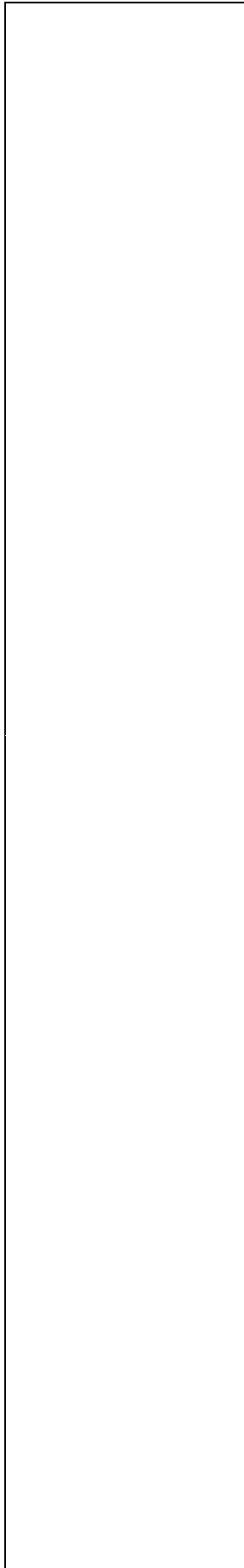
including elephants					
3.2.1.4 Develop community forestry with incentives in private land as well as degraded state land with participating villages					
3.2.1.5 Systematically conduct raids to eliminate poaching					
3.2.1.6 Systematically conduct raids to eliminate tree felling with the joint assistance from FD and Police					
3.2.1.7 Systematically conduct raids to eliminate illegal mineral extraction with the joint assistance from FD and Police					
3.2.2.1 Conduct seed germination study for major canopy species					
2.2.2.2 Establish forestation along canals constructed under irrigation projects					
3.2.2.3 Establish CBO assisted nurseries for selected plant					

	species				
	3.2.2.4 Conduct awareness programmes to public and visitors on their role and responsibilities to minimize impacts to reservoirs and mountains				
	3.2.2.5 Establish garbage sorting facilities in visitor stop overs, main bathing points and proposed park entrances				
	3.2.2.6 With CBO plan and produce environmental friendly products and alternatives to polythene and plastic use				
	3.2.2.7 Phase out use of use of agro chemicals in communities with assisted market facilities and champion farmer assistance schemes				
	3.2.2.8 With DS and DA fund and facilitate organic farming in PA periphery				
	3.2.2.9 Conduct systematic raids on unauthorized				

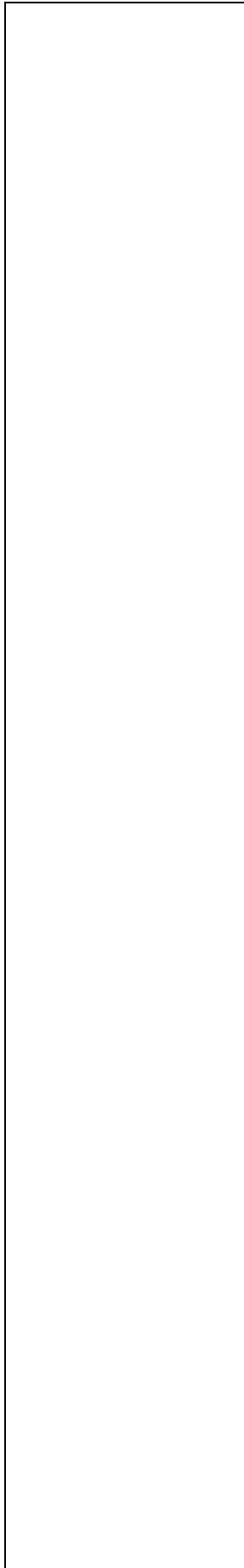
		electric fences, land grab specially in reservoir catchments and illegal clearing of forests					
		3.2.2.10 Create adequate cover and fodder species in selected elephant corridors and MER and live fences around communities					

Table 26: Outcomes from the environmental goal 3.3 (Ensured health and safety of wild animals as well as adjacent communities through improved co- existence and minimal negative anthropogenic activities), objectives, strategic actions and intended time for the implementation

Outcomes from Environmental Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
3.3 Ensured health and safety of wild animals as well as adjacent communities through improved co- existence and minimal negative anthropogenic activities	3.3.1 Communities living with better living conditions and in harmony with wildlife	3.3.1.1 Collate data on crop damages, property damages and damages to human life and other bodily damages inside PA and in the peripheral areas of PAC					
		3.3.1.2 Train DWC staff and other relevant officials on disaster management, health and safety and basic first aid					
		3.3.1.3 Assist nearby hospitals and health workers by conducting					



workshops on identification of venomous reptiles				
3.3.1.4 Provide community level training on co living with wildlife, strategies to avoid animal encounter				
3.3.1.5 With the assistance of champion farmers, DA and Department of Agrarian services develop animal friendly farming techniques and agriculture techniques to avoid crop and human damage				
3.3.1.6 Provide and facilitate opportunities to construct houses and animal shelters proof to damages by elephants				
3.3.1.7 With the agreement of community and DS relocate to households living in known elephant migratory routes with sufficient compensation and all facilities to settle in new areas				
3.3.1.8 With ESA data and other available data identify potential areas for				



human animal conflict and reserve such crown land from further development in MER					
3.3.1.9 With DA and DF and academia experiment on plant species and structures that can be used to avoid animal entry to human compounds					
3.3.1.10 Create marketing strategies for products coming from communities emphasizing that crops are produced along with wildlife there by adding value					
3.3.1.11 Provide opportunities for communities to sell their products at visitor centers of proposed NP					
3.3.1.12 Conduct awareness sessions, trainings and with DA facilitate and promote sustainable agriculture in communities					
3.3.1.13 With DS, DoSW conduct youth empowering programmers and capacity					

		development of peripheral youths to work in tourism sector including archeological sites					
		3.3.1.14 Elevate peripheral households and train communities to provide "Home stay" and B&B facilities in peripheral households					
		3.3.1.15 Conduct joint patrolling with trained community leaders during peak crop production times and initiate mobile text communication system on elephant movement					
		3.3.1.16 Prepare and implement a procedure for introduction of species from elsewhere to PA					
		3.3.1.17 Train communities on bee keeping and maintaining wildlife gardens for pollinators and facilitate marketing of products					
	3.4.1	Reduced damages and deaths to wildlife due human animal conflicts and poaching	3.4.1.1 Conduct systematic raids and file actions against incidents of poaching				

	within the PAC and periphery	2.4.1.2 Conduct joint patrolling in identified areas of poaching with FD, Police and Army					
		3.4.1.3 Reevaluate the effectiveness of current electric fences, accordingly relocate necessary segments and erect and maintain elephant new fences in areas where HEF is affecting both animals and humans					
		3.4.1.3 Monitor fishing activities and use of gear in reservoirs with fisheries societies and NAQDA and create awareness among fishing communities					
		3.4.1.4 Provide basic training on animal treatments, health and safety to all staff of DWC and FD					
		3.4.1.5 Develop the skills of selected staff on live fencing and electric fencing techniques around villages (overseas exposure should be included in this training)					

	3.4.1.6	Restore the habitats in key migratory routes to avoid deaths to animals				
	3.4.1.7	Purchase, set and monitor camera traps to identify the animal movements in night specially elephants at community level				
	3.4.1.8	Set a rewarding system for information on poaching and selling of bush meat				
	3.4.1.9	Increase the connectivity of the adjacent forest patches to facilitate animal movement by jointly identifying the proposed MER with FD				
	3.4.1.10	Construct a storage facility for material required in erecting elephant fences.				
	3.4.2	Improved nutritional and health status of animals within PAC	3.4.2.1	With academia and National Zoological Gardens develop proximate composition analysis of main fodder and develop a data bank on		

		availability with the objective of improving such fodder in PA					
		3.4.2.2 Reduce the pollutant loadings to water bodies and ensure quality water to animals through capping of non-biodegradable waste in water ways and by increasing community awareness on use of fertilizers and biocides					
		3.4.2.3 Conduct waterhole assessments in PAC and maintain the water bodies for wild animals. Where possible with the community decide alternatives to reduce water sharing conflicts with wild species. Alternatives may include pumping of water outside the PA using solar panels for community use, construction of new					

4. Operational Goal

Operational Goal

To operationalize an enabling KW & KP PAC management environment to effectively serve ecological and human needs

The plan is implemented to achieve following operational goals

- 4.1 Properly well demarcated and gazetted national park boundaries with one-mile radius of development restricted area and Managed Elephant Reserve.
- 4.2 Rights to land ownership agreed and obeyed by all parties.
- 4.3 Properly well erected and maintained elephant fences operated with community participation encircling the villages and their land in proposed MER.
- 4.4 Animal and human friendly functional network of water ways with minimal disturbance to habitat use and access to animals.
- 4.5 Knowledgeable, skilled, competent and resourceful DWC staff serving KW & KP PAC.

Table 27: Outcomes from the operational goal 4.1(Properly well demarcated and gazetted national park boundaries with one-mile radius of development restricted area and Managed Elephant Reserve.), objectives, strategic actions and intended time for the implementation

Outcomes from operational goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
4.1 Properly well demarcated and gazetted national park boundaries with one-mile radius of development restricted area and Managed Elephant	4.1.1 Established boundaries of the National Park present	4.1.1.1 All legal boundaries are identified with the use of gazette notifications for the existing sanctuary and are cleared					
		4.1.1.2 Aerial photography/drone images are purchased for proposed NP and MER					
		4.1.1.3 Land use maps of PA beyond one mile development restricted zone is established for both					

Reserve		NP						
		4.1.1.4 Create awareness on boundary demarcation to all key stakeholders through DCC						
		4.1.1.5 Demarcate identified boundaries with permanent and visible boundary posts and create a data base of geo referenced encroached areas and gradually resettle people from encroached areas of NP						
		4.1.1.6 Distribute maps with newly demarcated boundary details to all key stakeholders						
	4.1.2 Established boundaries of National Parks' one-mile development restricted area present	4.1.2.1 One mile development restricted area is identified and verified through ground thruthing for proposed Kahalle and Palle Mountains NP and Kala Wewa NP						
		4.1.2.2 Conduct community awareness sessions on one mile boundary demarcation procedure and exclude all traditional villages from the NPs						
		4.1.2.3 Develop sign boards of appropriate size, decide on text, Intervals, locations etc						
		4.1.2.4 Install one mile development restricted area sign boards with community participation						
		4.1.2.5 Conduct routine maintenance work of						

		demarcation posts and sign boards						
4.1.3 Established routine boundary patrolling scheme	4.1.3.1	Develop a 6 monthly compulsory boundary patrolling scheme along with regular patrolling conducted by range/ beat offices						
	4.1.3.2	Procure vehicles including a boat with facilities and allocate cadre for patrolling (refer Goods list)						
	4.1.3.3	Develop a boundary patrolling log book						
4.1.4 Established joint boundary management actions with FD in NPs	4.1.4.1	Prepare and implement a joint boundary protection action plan with quarterly progress reviews						
	4.1.4.2	Conduct training and site visits to new staff as and when necessary						
	4.1.4.3	Develop a community alert system for information sharing						

Table 28 : Outcomes from the operational goal 4.2 (Rights to land ownership agreed and obeyed by all parties.), objectives, strategic actions and intended time for the implementation

Outcomes from Operational Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
4.2 Rights to land ownership agreed and obeyed by all parties	4.2.1 Agreed set of management interventions introduced and executed for blocked elephant corridors thereby, disputes are resolved for	4.2.1.1 DWC, DS and community representatives agree on possible relocation with compensation.					
		4.2.1.2 Work with communities to					

	ecologically unsustainable occupations within and around the park	phase out unlawfully built areas				
		4.2.1.3 Design and distribute awareness material on importance of elephant corridors				
		4.2.2.1 With the assistance of DS clear the land ownerships and work with community on acceptable relocation packages				
		4.2.2.2 Erect and maintain the erected elephant fence to minimize human animal conflict				
		4.2.2.3 Work with DS to provide access to water to communities earlier dependent on water resources from Hakwatuna Oya				
		4.2.2.4 Work with religious establishments, community, FD, DS to stop encroachments through arranged meetings conducted on regular basis				
	4.2.2 An agreed set of management interventions introduced and executed for boundary bordering Hakwatuna Oya area thus disputes are resolved for ecologically unsustainable occupations that block the electric fencing and animal movements					

	4.2.3 Maximum inter agency collaboration between DWC, DS and FD to curb illegal settlements and land use in NPs and proposed MER	4.2.3.1 Prepare a data base on current land owners and the type of land use to ensure traditional use of private land				
		4.2.3.2 Develop and agree upon resettlement plans with community, DS and other stakeholders where needed				
		4.2.3.3 Resettle illegal settlers with the assistance of community, DS and political authority according to land allocation procedures of the country				
		4.2.3.4 Develop a joint boundary patrolling scheme with FD for conflict areas				

Table 29: Outcomes from the operational goal 4.3 (Properly well erected and maintained elephant fences operated with community participation encircling the villages and their land in proposed MER.), objectives, strategic actions and intended time for the implementation

Outcomes from Operational Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
4.3 Properly well erected and maintained elephant fences operated with community participation encircling the villages and their land in proposed MER	4.3.1 Community settled areas and other important forest segments are declared as a MER with FD	4.3.1.1 Inform the intention for declaration to community and other relevant stakeholders and obtain the consent					
		4.3.1.2 Prepare relevant documents and maps and submit documents to Ministry.					
		4.3.1.3 Create public awareness					
		4.3.1.4 Conduct a baseline study to develop a resource inventory including community diversity and livelihoods					
		4.3.1.5 Establish new beat offices as required for the management of MER					
		4.3.1.6 Implement community centered conservation, livelihood development, and electric fencing with community,					

		FD and DS participation					
		4.3.1.7 Create awareness on concept and practice of MER					
		4.3.1.8 Update maps and distribute to all stakeholders accordingly					
	4.3.2 Well demarcated MER boundaries	4.3.2.1 Inform the intention for boundary demarcation to stakeholders at DCC					
		4.3.2.2 Initiate community awareness sessions and decide on mutually agreed mechanism					
		4.3.2.3 Demarcate identified boundaries with permanent and visible boundary posts					
		4.3.2.4 Update maps after demarcation including vegetation, cover and land use					
		4.3.3.5 Conduct routine maintenance work					

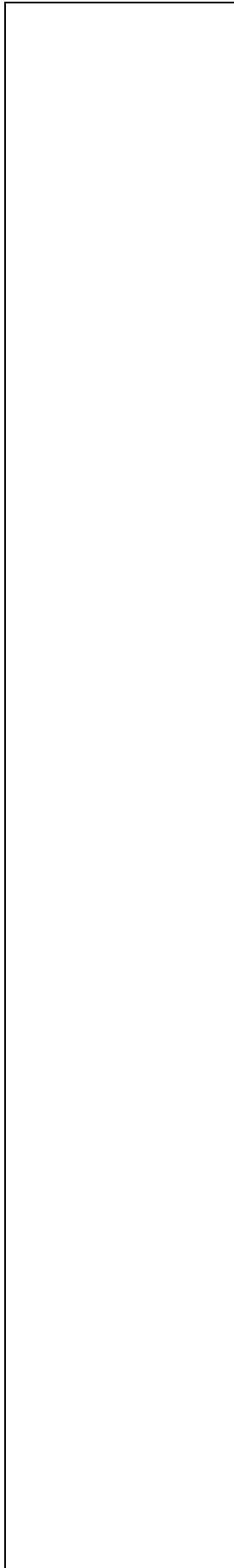
Table 30: Outcomes from the operational goal 4.4 (Animal and human friendly functional network of water ways with minimal disturbance to habitat use and access to animals), objectives, strategic actions and intended time for the implementation

Outcomes from Operational Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
4.4 Animal and human friendly functional network of water ways and access roads with minimal disturbance to habitat use and access to animals	4.4.1 Ensured access for water with least disturbance to species	4.4.1.1 Develop access for water to wild animals					
		4.4.1.2 Conduct annual maintenance work of existing water ways with MDA and DI					
		4.4.1.3 Maintain access to water to human with least disturbance to animals					
		4.4.1.4 Install solar lights to all major outpost buildings along the road network.					
		4.4.1.5 Repair all culverts, shoe bridges that require maintenance					
	4.4.2 Optimized visitor access to provide a meaningful visitor experience	4.4.2.1 Construct visitor hideouts in stop overs to minimize disturbance to wildlife and to ensure optimal animal watching in NPs					
		4.4.2.2 Develop a nature trail along reservoirs and archeological sites					

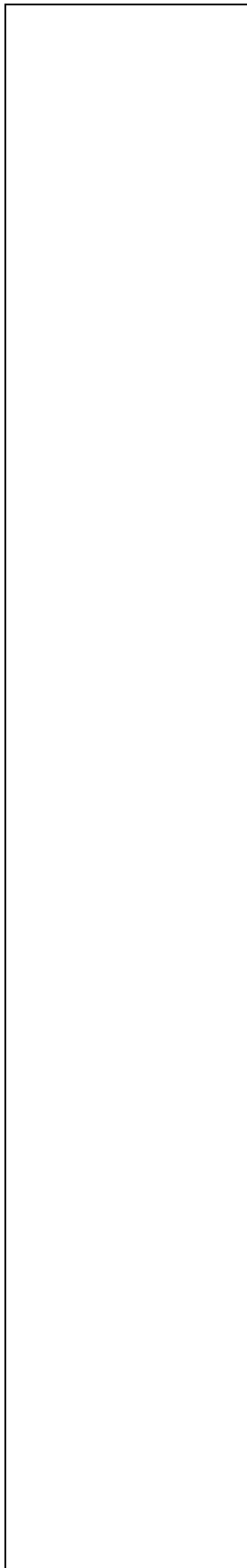
		4.4.2.3 Train staff and tour operators on road use, speed limits, does and don't while touring and how to use nature trails					
		4.4.2.4 Train two selected staff overseas on techniques for visitor access management and construction of visitor access facilities					

Table 31: Outcomes from the operational goal 4.5 (Knowledgeable, skilled, competent and resourceful DWC staff serving KW & KP PAC), objectives, strategic actions and intended time for the implementation

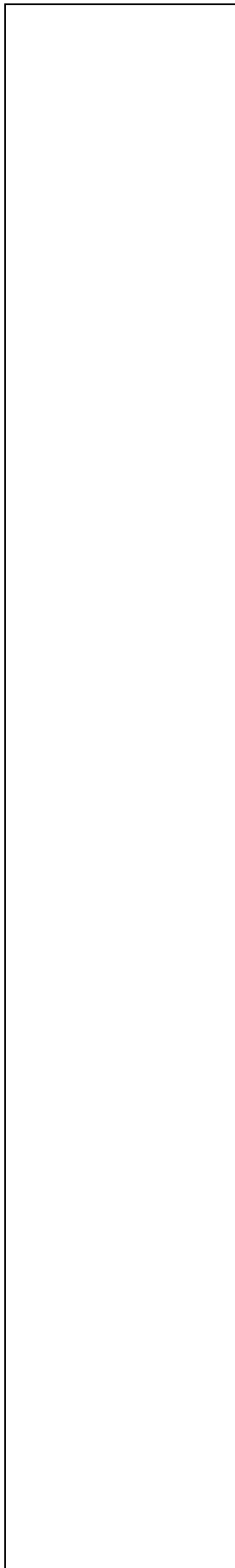
Outcomes from Operational Goal	Objectives	Strategic actions	2018	2019	2020	2021	2022
4.5 Knowledgeable, skilled, competent and resourceful DWC staff serving KPK Protected Area Complex	4.5.1 Skilled and knowledgeable staff serving PAC	4.5.1.1 Plan and execute a training schedule for park management on following local training (where possible invite official of DS, FD, DI, DA, DMC, MASL, Police, DFAR, CCD, tour operators, conservationist, community leaders to participate to these training)					
		1. Water quality monitoring and wetland management					



2. Tools for wildlife habitat analysis, evaluation and management					
3. Use of drone technology, remote sensing and basic GIS use for wildlife management					
4. Basic veterinary care, animal restraint, ageing and sexing					
5. Conducting raids, ambushes and skills of combat					
6. National and international policies and legislature for wildlife officials including efficient handling of judicial system					
7. Healthcare, disease management and Nutrition in wild animals					
8. Use of fire arms					
9. Snorkeling, diving in fresh water					
10. Conducting animal senses and population estimation					
11. Remote sensing					



12. Record keeping and information systems management					
13. Conflict resolution and participatory management					
14. Gender equality and empowering PA buffer zone communities					
15. Science communication techniques					
16. Sustainable tourism, ethical tourism and eco-tourism					
17. Survival skills in forests					
18. Identification of fresh water fauna and flora					
19. Identification, monitoring, eradication, containment and record keeping for invasives					
20. Wildlife photography					
21. Peace building and maintenance of peace and ethnic identity of people					



4.5.1.2 Plan, identify appropriate locations and execute following foreign training programmes and study tours for park officials					
1. Fundamentals of habitat restoration and evaluation					
2. Designing of restoration centers and animal management within restoration centers					
3. Captive breeding techniques and management of captive animals					
4. Plant propagation techniques and restoration of endangered flora					
5. Community forestry					
6. Invasive species management from introductions to public awareness					
7. Community linked park management (study tours)					
8. Tools for rainwater harvesting and water management in PA					
9. Collection and use					

		of DNA samples for identification of bush meat					
		10. Designing of effective visitor resources and nature trails					
		4.5.1.3 Increase the cadre for NPs MER and in periphery					
		4.5.1.4 Train and recruit seasonal staff as and when needed from periphery					
	4.5.2 Park officials sufficiently provided with infra structure for daily operations, research, awareness and visitor management		4.5.2.1 Supply NPs and MER with following essential items required for park management (operational needs)				
			4.5.2.2 All items are listed under goods category I in Annexure 1				
			4.5.2.3 Supply NPs and MER with following essential items required for park management (Research needs)				
			4.5.2.4. All items are listed under goods category II in Annexure 1				
			4.5.2.5 Supply NPs and MER with following essential items				

	required for park management (Visitor management needs)					
	4.5.2.6 All items are listed under goods category III in Annexure 1					

Indicators

An indicator can be a quantitative or qualitative measure of some attribute of the system that is directly measured; estimated using a model (e.g. biomass estimated using a stock assessment model); measured indirectly (surrogate measures of biomass such as catch rates); or even just inferred (e.g. number of collaborative meetings as an indicator of cooperation and coordination across agencies).

More than one indicator may be used to monitor performance of the same management objective. This can provide greater confidence where none are considered accurate by themselves, but requires determination of how they will be collectively interpreted to track performance when they show differing trends. Participatory, community-based monitoring can be used to develop and monitor suitable indicators that are based on locally collected data. This can provide a practical and cost effective method to measure progress towards meeting the management objectives developed. It gives a sense of ownership to data and stakeholders are made self-aware about the changes.

Table 32: Indicators of expected outcomes, baseline and target

<i><u>This management plan for KW & KP PAC will strengthen the ability of DWC and other key stakeholders' ability to safeguard biodiversity, viable populations, free movements and connectivity of species with other protected areas and areas of ecological importance. The benefits of such management is intended to bring in human wellbeing of both inside and peripheral communities and for all thus ensuring all direct and indirect services are sustained forever.</u></i>					
Project Strategy	Indicator	Baseline	End of Project Target	Means of verification	Risks and assumptions
1.1. Properly well demarcated and gazetted protected area boundaries in KW & KP PAC	1. Number of km of the periphery demarcated.	Not present	Entire periphery including the proposed PAs.	Records from DWC, RPIC minutes of progress evaluation meetings.	Political resistance, community resistance and unavailability of documents, Collaboration of institutes will be hindered by complexity of institutional roles, and interests at national, provincial, district and local levels.

	2. Number of awareness boards installed in PA boundary and one mile development restricted zone of proposed NPs	03	Entire periphery	Records from DWC.	Destruction by communities. Political pressure. Collaboration of institutes will be hindered by complexity of institutional roles, and interests at national, provincial, district and local levels.
	3. Data base with geo referenced information on current settlements and their extent.	None	Entire boundary of KW & KP PAC.	DWC GIS Unit records. RPIC minutes of progress evaluation meetings.	Political and institution negative pressures. Lack of expertise to conduct surveys on time.
1.2. Rights to land ownership agreed and obeyed.	4. Number of land disputes identified.	Not available	50 %	Records from DCC and DWC.	Political pressure.
	5. Number of land disputes resolved.	Not available	50 %	Records from DCC and DWC	Collaboration of institutes will be hindered by complexity of institutional roles, and interests at national, provincial, district and local levels.
	6. Number of resettlement plans drawn and executed successfully.	Not available	50 % identified disputes	Records from DCC and DWC.	
1.3. Properly well demarcated and gazetted	7. Number of community meetings	None	Monthly meetings during demarcation.	Records from DWC and Divisional Secretariats and	

MER boundary with community participation.	held for demarcation and boundary maintenance.		Six monthly meetings for maintenance.	Grama Niladhari.	
	8. Number of km of the perimeter of MER boundary marked.	To be determined	100 %	Department records	
1.4. An operative grade access network within KW & KP PAC.	10. Number of new roads developed for operational purposes.	To be decided	75 % of the decided	Department records	
	12. Number of new entry points constructed.	1	2	Physical structures present	
	13. Number of range/beat offices and sanitary facilities constructed and maintained.	4	15	Presence of physical structures and department records	Lack of sufficient funds.
	14. Number of beat and range offices supplied with essential infra structure.	All offices to be up graded.	100	Procurement and disbursement. Inventories.	Infra structure not reaching to intended places Low quality intra structure not suitable for intended purposes. Lack of national suppliers.

	15. Number of officers trained after assessing their training needs.	To be established as per the provided training schedule	100 %	Staff profiles	Regular staff transfers.
	16. Number of trained officers serving the park.	To be established	75 %	Staff profiles	
	17. Number of collaborative research conducted by park officials.	None	3 research per year	DWC research committee minutes	Lack of motivation and incentives.
2.1. Updated status and distribution of fauna and flora, distribution of vegetation types, water resources and other natural resources and man-made features in KW & KP PAC.	18. A data base maintained for collated information published for the area.	Not available.			
	19. Updated baseline data for species.	DWC resource inventory of 1998.	Updated maps and data base.	Updated resource inventory.	
	20. An inventory of water resources with information on their dynamics.	DWC resource inventory of 1998.	Updated maps and data base	Updated resource inventory.	
	21. An inventory of other physical resources with information on their	DWC resource inventory of 1998.	Updated maps and data base.	Updated resource inventory.	

	distribution.				
	22. An inventory of archaeological sites, their status and locations.	DWC resource inventory of 1998.	Updated maps and data base.	Updated resource inventory.	
2.2. Ecosystems functioning optimally thus positively impacting the biodiversity, population sizes, species movements and interactions.	24. Viable population sizes established.	Not known	VPA established for elephants.		
	25. New corridors identified.	Not known	One important corridor declared.	Gazette notification	Community pressure
	26. Core and other zones declared.	Not in place	KW & KP PAC zonation plan.	Maps of GS unit DWC	
2.3 Ensured health and safety of wild animals as well as adjacent human communities through improved co-existence and minimal negative anthropogenic activities.	27. Number of reported elephant deaths in the periphery	12	Reduced by 50 %	Records of DWC	Communities not willing to move from
	28. Number of illegal fishing gears operated	Not known	Reduced by 50 %	Records of DWC	
	29. Number of crop and property damages	21	Reduced by 25 %	Records of DWC/DCC/ DS/ Police	
	30. Acres of crop land damaged by elephants	Not known	Reduced by 25 %	Records of DWC/ DS/ Police	
	31. Number of	8	Reduced by 75 %	Records of DWC/ DS/ Police	

	human deaths				
	32. Number of New visitor centres	None	2	DWC records	Finances
3.1. Income for KW & KP PAC and improvement of quality and life of adjacent communities through sustainable and responsible ecosystem services and products trade.	33. Average monthly income from PA activities	None	30 % increase after establishment of NP and entry points	Park income records	Level of visitor interests diverted elsewhere
	34. Average monthly income of peripheral community	To be established	Elevated by 25 %	Surveys conducted by a trained sociologist	Communities affected by climate change, disease and crop failures thus decline in regular income
	35. Number of organic/ sustainable agriculture initiatives	To be established			Lack of interest and lack of market initiatives
	36. Number of locations opened for communities to sell their products.	None		Presence of physical structures in operation	Political pressure
	37. Number of community members engaged in tourism	46		100	Lack of motivation and recruitment procedures not compatible with suggestions
	38. Number of safari operators trained from community.	None		100 %	

4.1 Enhanced inter-agency coordination with key stakeholders ensuring good governance.	39. RPIC established and in operation.	Not in existence.	Duly appointed NPIC and RPIC.	Appointments/ToR/ Minutes of the meetings.	Lack of institutional commitment. Lack of provisions to support.
	40. Number of civil organisations serving RPIC.	Not in existence.	Duly appointed RPIC.	Appointments/ToR/ Minutes of the meetings.	Lack of institutional commitment Lack of provisions to absorb communities into management mechanisms
	41. Number of community meetings held during the project.	None	All decisions related to communities taken after community consultation	Minutes of the meetings.	

6. Monitoring and evaluation

In order to ensure transparency, following steps should be followed during monitoring and evaluation when implementing this plan. Also, it is of utmost importance that baseline data are available, indicators have been agreed upon, indicators are capable of showing initial, mid and final achievements of goals, agencies are aware about the type of data they are expected to generate, agencies have agreed to share data and a system is in place with a competent person to collate, analyse and report.

1. Monitoring should be conducted during the whole of the plan's implementation. The frequency of monitoring activities will be indicator dependent i.e. some indicators will need to be monitored monthly, some seasonally and some annually.
2. At the simplest level, because specific objectives and indicators have been chosen to cover the important ecological, social, economic and governance issues, assessing the status of each indicator against its benchmark should provide a snapshot of how well management is performing at the ecosystem level.
3. Different evaluation results will be required by different stakeholders and there should be upward and downward information flows between different levels, ranging from the national level to the community level, as well as across sectors.



4. In addition to internal audits three independent audits should be conducted at 1.5, 3.5 and 5 years of the project by either a donor nominated team or a team selected by the ministry.
5. Progress review meetings should be held every month during the implementation and PIP should be regularly updated, accordingly. Both technical and financial progress should be

evaluated with accurate formats. An initial training on record maintenance to all involved staff is important.

6. The minutes of meetings should be maintained and distributed timely after every meeting.
7. An online calendar should be maintained and shared with all stakeholders.
8. Outcomes of reviews should be made available for stakeholders.

7. Sustainability plan

The sustainability of the proposed management plan and its outcomes depends on several factors.

- a. Incentives stakeholders receive during the implementation of the strategic actions
- b. Efficiency of the proposed implementation committees in communicating the outcomes to stakeholders at all levels
- c. Perceived benefits encouraging the stakeholders to continue even in the absence of visible external funding
- d. Compatibility of the proposed operational mechanisms with the existing management structures
- e. Retaining staff trained for specific tasks within PAC

The strategic actions proposed here, if implemented diligently, will result in positive attitudinal changes as well as better living conditions for communities, who in turn need to be made aware that to enjoy these positive changes, PAC needs to be protected.

Hence setting aside a part of the revenue in a liberal trust fund that can be accessed can benefit continued functioning of the systems. Also, the proposed actions have been spanned out in such a way, the first five years take care of provisioning of resources. Hence, latter stages are for monitoring and upgrading without the need of large amounts of expenditure for procurements.

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Appendices

Annexure 1: Table of goods required for PAC management

Category	Place of requirement	Description	Number required	Remarks
Goods for operational needs	Park head office	Four wheel drive cabs	4	2 for boundary patrolling 1 for tourism 1 for park administration related travelling
		Telephone line with an operator	2	For new NPs
		GPS	2 Units per each range and beat office	Training to be provided on use and data entry
		Drones	02	
		Truck		
		Crew cab	1	
		Mechanized outrigger boats	2	For Kala Wewa and Hakwatuna Wewa patrolling
		Utility boat with motors	1	
		2 large tractors		
		ATV bikes	3	To be placed at strategic posts
		Diesel generators	5 units	
		Solar light systems	Complete unit for each building	All beat an range offices should be supplied with solar power
		Diesel Lawn movers	2	
		Shredders	10	
		Branch cutters	10	
		Swiss Army knives and tool pack	10	
		Gum boots	50	
		Compost bins ad bins for plastic/ polythene and glass	3 sets each	For every building where waste is generated including beat and range offices
		Spades, weeders, rakes, trowels, Dutch hoe, wheel	1 set each	For every bungalow, range

		barrows		and beat office
		Rain coats	3 per office	
		Gaiters	1 each for all park officials	
		Night vision binoculars	2	
		Tents (single/ 3 person and 10 person)	2 sets each	
		Camping chairs (2 nos.) and folding tables	2 sets	
		VHF/ W.T. / R.S	A system to connect entire PAC	
		Digital SLR Camera	1	
		Stainless steel flasks (500 ml)	2 for each office	
		Headlamps	1 each for every officer	
		Camping cookware	2 sets	
		Sleeping bags	1 each for every officer	
		Solar LED Lanterns	2 each for every office	
		Personal Locator beacons	3 sets	
		Lap top computer	5	Park office and range offices
		Printer cum scanner	5	Park office and range offices
		Laminating machine	5	Park office and range offices
		Stainless steel cupboards	10	Park office and range offices
		Office chairs and tables	10 sets	Park office and range offices
	Establish a meteorological station with instruments	01	To be established with Department of meteorology	
Beat and Range office cum officers accommodation	Sleeping bags	3 per beat office		
	Basic furniture and items for office (office tale, chairs, stainless steel lockable cupboard, lockable cupboard for arms, 1:5000 maps of the area, communicating systems,	Each office		

		GPS)		
		Basic furniture for bed rooms (single beds, table, chair, cloth rack and dressing cupboard cum wardrobe, mosquito nets)	Each office	
		Basic furniture for living room (arm chairs, dining table and coffee table, first aid box)	Each office	
		Basic furniture and equipment for kitchen (storage cupboards, cooking pots, coconut scraper, gas cooker, crockery and cutlery)	Each office	
		Binoculars	1 unit per office	
	Ticketing points	Tables and chairs		New Kala Wewa entrance ticketing office
		Cash machines		
		Safety lockers		
		Display cupboard for leaflets		
		Large screen		
		DVD player		
		Visitor chairs		
		Lockable cupboards		
		Large notice board		
		Customer satisfaction survey box		
Goods for research and animal health management	Research	Refractometer	2	
		Digital multiparameter for water quality	1	
		Soil pH meters	2	
		Stainless steel quadrats (1*1 m)	4	
		Stainless steel quadrats (0.5*0.5 m)	4	
		Mist nets for birds	2	
		Camera traps	2	
		Sampling jars	10	
		Field microscope	2	
		Bat detectors	2	
		Cast nets	1	

		Snake handling tool "L- tool"	4	
		Hand nets of various mesh sizes for fish	10	
		Snake tongs for capture snakes	4	
		Hand nets for butterflies and other insects	10	
		Light traps for insects	3	
		Hand held GPS	5	
		Dingy boat	2	
		Refrigerator	1	
		Stainless steel cupboards		
		Projector		
		Screen		
		Wooden Chairs for meetings and awareness sessions		
	Animal health and safety	Animal restraint ropes and poles		
		Dissecting sets		
		Basic Surgical kit (Scissors = 1 = pointed, pointed, 1 = pointed, blunt, 1= blunt, blunt, Artery forceps = 3= straight, 2= curve, Rat toothed forceps, Scalpel handle size 4;22, Scalpel blade, London hospital type needle holders, Suture needles with cutting edge, Tissue holding forceps)		
		Electric hair clipper		
		Animal cages		
		Gum boots and overalls		
		Stainless steel table for small animal examination (30'*24'*48')	02	
		Saline stand (height adjustable to 72')	03	
		Pharmaceutical lockable storage cupboard		
		Refrigerator		
		Hypodermic needles (18G,21G, 23G) and disposable needle (1cc,		

		2.5cc, 5 cc, 10cc)			
		Office tables and chairs			
		Remote drug shooters			
		Dart guns			
		Stretchers	01		
Goods for visitor management	Bungalows and camping sites of roposed NPs	Crockery and cutlery made of enamel or any other material that can bear rough handling		Proposed bungalows for tourism	
		Mosquito nets			
		Camp beds			
		Bunker beds			
		Solar light systems			
		Generators			
		Wooden chairs and tables			
		Garbage bins for sorted garbage			
		Matrasses, pillows and linen			
		Kitchen utensils			
		Pots and pans			
		Mops, brooms and other cleaning items			
		Visitor drop off points	Fixed spotting scopes in strategic places		
			Fixed wooden benches and tables		
	Laminated bird, butterfly and mammal etc. guides fixed to posts				
	First aid kits				
	Visitor centres	Projectors		In Kala Wewa entrance	
		Public address systems			
		Screens			
		Exhibits including interactive exhibits			

Annexure 2 : Proposed buildings

Type	Description	Number
Park office	Park office, accommodation quarters and store rooms	One (1) in Kala Wewa NP One (1) Proposed Kahalle and Palle Mountains NP
Range Office	New Palagala Range office with store rooms and accommodation	1
Visitor Centre cum research hut		One (1) in Kala Wewa NP One (1) in Proposed Kahalle and Palle Mountains NP
Store room for electric fence material		One (1) in Kala Wewa NP
Staff accommodation		New staff accommodation in all ranges
Sanitary facilities and community run canteen		Proposed visitor centre
Nature trail with watch huts and hide outs		Two (2) nature trails in Kahalle and Palle Mountains
Visitor accommodation		2 bungalows in selected locations of proposes NPs

Annexure 3: Current status of staff and additional staff required for implementation of PAC strategic action plan

Location	Category	Existing cadre	Additional cadre required
Proposed NPs	Rangers	2	2
	Range Assistant		
	Wildlife guards		
	Trackers/voluntary guards		
	Laborers		
	Drivers		
	Bungalow keepers		2
	Assistant Bungalow Keeper		2
	Veterinary staff		1
	Management assistant		2
	Finance assistant		1
	IT Assistant		1
	Interpreters for visitor center		2
	Temporary guides		5
Daily cleaning staff		2	
Range Offices	Ranger		1
	Range Assistant		2
	Wildlife guards		4
	Volunteer guide		3
	Field Assistant		1
	Drivers		1
Beat office	Range Assistant		2
	Wildlife guards		5
	Field Assistant		2

Annexure 4: Socio Economic data -Galnewa DS- (Land use and Administrative structure according to the Grama Niladari Divisions)

NO	Division No.	Grama Niladari Divisions	Area (Km ²)	No. of Families	No. of people	Population Density	Distance from the Divisional Secretariat Office (Km)
1	459	Kandegama	5.27	226	665	126	13
2	460	Kandulegama	4.99	102	309	61	14.12
3	461	Werunkulama	4.93	453	1404	284	9
4	462	Nagama	3.25	486	1537	472	7.5
5	463	Siyambalangamuwa South	2.27	232	775	341	13
6	464	Kandulugamuwa	12.31	184	727	59	12
7	465	Kallanchiya	6.7	278	808	120	11
8	466	Madawachchiya	7.28	468	1486	204	3.5
9	467	Kumbukwewa	6.33	95	289	45	8.5
10	468	Siyambalawa	8.22	295	823	100	10
11	469	Lolugaswewa	3.3	412	1331	403	4
12	470	Kaththaragama	2.86	418	1302	455	2
13	471	Pitiyeya	3.24	464	1220	376	2.5
14	472	Galnewagama	1.7	471	1313	772	1
15	473	Musnawa	4.81	220	728	151	4
16	474	Walaswewa	4.54	748	2324	511	6
17	475	Malbaligala	5.39	561	1905	353	3.5
18	476	Handungama	4.48	362	1200	267	2.5
19	477	Galnawa Town	1.65	206	620	375	0.1
20	478	Helabodugama	4.3	689	2088	485	0.7
21	479	Bulnawa	3.42	595	2205	644	2
22	480	Thoranagama	1.26	374	1505	1194	6
23	481	Karuwalagaswewa	4.68	728	2281	487	7
24	482	Usgala Halmillawa	2.93	374	1267	432	4
25	483	Midellawa	5.23	604	1996	381	8.5
26	484	Otunupaladigama	4.83	484	1566	324	9
27	485	Ihala Kalankuttiya	4.58	552	2021	441	8

28	486	Obadayagama	4.69	486	1718	366	9
29	487	Pahala Kalankuttiya	5.91	537	1663	281	13
30	487/A	Namalgamuwa	4.88	446	1475	302	13

Annexure 5: Land use patterns (Galnewa DS)

Grama Niladari Division		Cultivated paddy fields		Coconut	Other	Forest			Wetlands/ Mangroves	Home Garden	Reservoirs	Buildings	Soil/stones	Abundant Lands	other) Sacred lands/cemetery/ roads
		Irrigation	Rain Water			Thick	Open	Cultivated							
1	Kandegama	164.80		6.00	9.20		82.80			118.00	128.40	3.60		5.20	9.00
2	Kandulegama	52.80	14.00	4.00	20.20	200.20	40.00	10.00		51.60	57.60	1.60	2.00	14.00	8.00
3	Werunkulama	103.60	10.40	5.20	2.00		70.00			102.00	92.80	6.00	0.20		6.00
4	Nagama	99.60	6.00	3.20			56.00			90.00	72.80	7.20	0.20		8.60
5	Siyambalangamuwa South	73.20	13.60	10.00						80.00		12.00			8.00
6	Kandulugamuwa	74.40	10.20	14.00	20.80	100.00	706.00	10.70		79.80	54.80	5.30			
7	Kallanchiya	259.50	16.00	10.00	6.00	76.00	11.00	3.60		156.00	192.80	4.00			6.80
8	Madawachchiya	136.80	23.00	9.00	51.00	61.20				374.00	41.00	4.50		3.50	56.90
9	Kumbukwewa	52.60	2.80	2.00	15.00	456.50				51.00	39.50	1.50			4.61
10	Siyambalawa	320.00	115.00	8.50	4.00	184.50	6.00			107.00	27.00	4.50	1.40		12.60
11	Lolugaswewa		10.00	6.00	30.00			50.00		173.58		7.30			12.72
12	Kaththaragama	69.20	8.40	2.00						168.50	18.80	5.06	0.20		12.36
13	Pitiyeya			5.00	6.34					289.64		7.50	1.00		5.00
14	Galnawagama	218.75		62.50						75.00	1.00	2.00			
15	Musnawa	121.00	15.00	4.00	137.00		40.00	5.00		61.00	75.00	3.00			20.00
16	Walaswewa	130.00	43.00	57.00	3.85		19.00			30.00	69.60	9.55	4.00	5.45	25.00
17	Malbaligala	229.00		8.00	10.00	85.40				140.44	9.60	7.31	3.00		40.00
18	Handungama	135.50	15.00	6.00	9.00					109.00	50.00	8.00			15.00
19	Galnawa Town	132.80								7.20		20.00	0.60		3.00
20	Helabodugama	227.00		7.00	11.00	75.40	1.10			145.40		8.36	1.00		3.20
21	Bulnawa	120.00		20.00	11.20					80.00	1.00	3.00			3.60
22	Thoraneagama	121.00		2.00	5.00					82.27		7.00			5.12
23	Karuwalagaswewa	206.60	14.00	5.60						52.60		14.60	0.60		8.00
24	Usgala Halmillawa	301.00	4.00	2.00			6.00			53.00		2.00	10.00		3.00

25	Midellawa	272.00	14.70	18.90	16.90			6.90		137.80		11.90	3.80	7.00	27.90
26	Otunupaladigama	206.00	16.00	14.00	15.00					173.00		9.74	5.26	6.00	25.20
27	Ihala Kalankuttiya	150.00		17.20				1.25	202.00	51.45	12.85	0.50	1.00	16.25	
28	Obadayagama	413.17		26.00	58.00				123.00		58.00	2.00	2.00	3.00	
29	Pahala Kalankuttiya	197.00		6.00	3.00				168.00					172.00	
30	Namalgamuwa	146.00		2.50	2.00				137.00	41.00	9.00			142.40	

Total		4,733.3 2	351.10	343.60	446.49	1,239. 20	1,037.90	86.20	1.25	3617.83	1,024.15	256.37	35.76	44.15	663.26
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Annexure 6: Population according to the race (Galnewa DS)

Grama Niladari Division		Village	No. of People	Race					
				Sinhala	Sri Lankan Tamil	Indian Tamil	Muslim	Burger	Other
1	Kandegama	Kandegama	231	231					
		Sakalasooriyagama	78	78					
		galegoda Kumbukwewa	230	222		4		4	
		Diyamatiyawa	126	126					
Sub Total			665	657		4		4	
2	Kandulegama	Kandulegama	108	108					
		Nikaththeygama	87	87					
		Galmadiyawa	114	114					
Sub Total			309	309					
3	Werunkulama	Werunkulama	825	61	61		703		
		Niyangama	579	21	5		553		
Sub Total			1404	82	66		1256		
4	Nagama	Nagama I	346			9	338		
		Nagama II	867				867		
		Uda Nagama	323				323		
Sub Total			1537			9	1528		
5	Siyambalangamuwa South	Siyambalangamuwa South	449	449					
		Indigollagama	326	326					
Sub Total			775	775					
6	Kandulugamuwa	Kandulugamuwa	201	201					
		Hbarawaththa	111	111					
		Watakoluwegama	415	415					
Sub Total			727	727					
7	Kalanchiya	Palugollawa	116	116					
		Kalanchiya	309	309					
		Ihala Galatabandiyawa	210	210					
		Pahala Galata Bandiyawa	173	173					

Sub Total			808	808				
8	Madawachchiya	Kala Madawachchiya	357	357				
		Govi Gammanaya	247	247				
		Oththapahuwa	586	586				
		Jana Udana Gammanaya	296	296				
Sub Total			1486	1486				
9	Kumbukwewa	Kumbuk Wewa	289	289				
Sub Total			289	289				
10	Siyambalawa	Nelumpathgama	228	228				
		Hunupalagama	278	278				
		Siyambalawa	163	163				
		Mulannatuwa	154	154				
Sub total			823	823				
11	Lolugaswewa	Lolugaswewa	1331	1330	1			
Sub Total			1331	1330	1			
12	Kaththaragama	Kaththaragama	592	591	1			
		Hemagama	710	710				
Sub Total			1302	1301	1			
13	Pitiyeyaya	Nidikumbayaya	412	412				
		Pitiyeyaya	365	365				
		Ranawiru Gammanaya	120	120				
		Ekamuthugama	231	231				
		JanaUdanaya	92	92				
Sub Total			1220	1220				
14	Galnawagama	Galnawagama	1313	1312	1			
Sub Total			1313	1312	1			
15	Musnawa	Musnawa	365	365				
		Galmadiyawa	113	113				
		Yalegama	64	64				
		Halambawewa	186	186				
Sub Total			728	728				
16	Walaswewa	Aukana	879	875				4
		Walaswewa	787	784	3			
		Sirimama	531	531				

		Aliwanguwa	127	127				
	Sub Total		2324	2317	3			4
17	Malbaligala	Malbaligala	354	353	1			
		Sirimagama	839	839				
		Alubaththa	712	712				
	Sub Total		1905	1904	1			
18	Handungama	lhalagama	454	453				1
		D1 Handungama	375	375				
		D2 Handungama	371	371				
	Sub Total		1200	1199				1
19	Galnawa Town	Galnawa town	620	615	5			
	Sub Total		620	615	5			
20	Helabodugama	Helabodugama	1064	1064				
		Yaththigama	1024	1023	1			
	Sub Total		2088	2087	1			
21	Bulnawa	Hiripitiyawa	1284	1284				
		Bulnawa	921	921				
	Sub Total		2205	2205				
22	Thoranegama	Thoranegama	1505	1505				
	Sub Total		1505	1505				
23	Karuwalagaswewa	Karuwalagas wewa	428	428				
		Halmillawa	736	736				
		Amunugama	1117	1117				
	Sub Total		2281	2281				
24	Usgala Halmillawa	Usgala Halmillawa	706	706				
		Usgala maligathanna	561	561				
	Sub Total		1267	1267				
25	Medellawa	Medellawa	849	849				
		Amunugama	334	334				
		lhala Bulnawa	813	813				
	Sub Total		1996	1996				
26	Otunupaladigama	Otunupaladigama	729	729				
		Paththnigama	837	837				

Sub Total			1566	1566					
27	Ihala Kalankuttiya	Ihala Kalankuttiya	1011	1011					
		Thammannawa	1010	1010					
Sub Total			2021	2021					
28	Obadayagama	Ihala Obadayagama	312	312					
		Pahala Obadayagama	589	589					
		Galkema	817	817					
Sub Total			1718	1718					
29	Pahala Kalankuttiya	Pahala Kalankuttiya	915	908			7		
		Kuratiyawa	748	748					
Sub Total			1663	1656			7		
30	Namalgamuwa	Mawatheygama	373	373					
		Namalgamuwa	563	563					
		Koorakappitiyawa	539	539					
Sub Total			1475	1475					
Total			40551	37,659	79	9	2,795	4	5

Annexure 7: Summary of the employment (Galnewa DS)

Grama Niladari Division		No of People																				
		Public Corporations Board							Private					Self-Employment						Unemployment		Total
		Executive grade	Staff grade	Field & Technical officers	Management Trainees	Security	Teachers	Driver/ Office assistant	Executive grade	Staff grade	Field & Technical officers	Management Trainees	Driver/ Office Assistant	Farming	Animal Husbandry	Fisheries	Industries	Services	Other	Housewife	Unemployment	
1	Kandegama		2	7	9	38	20	7			22	6	6	93	9		25		31	128	39	167
2	Kandulegama		2	1	1	12	5	1					2	56	2	1	9		6	14	15	127
3	Werunkulama			5		8	9							179	8		13		21	360	280	640
4	Nagama		1	6	2	1	49	2				4		72	136				48	412	628	1,361
5	Siyambalangamuwa South		1	4		39	12	1					33	144	14	1	9		52	220	350	750
6	Kandulugamuwa		1	3	2	26	5	3				3	4	65	7		5		25	288	71	508
7	Kallanchiya		1	3	2	72	9	1					2	214	7	2	5	3	2	84	21	322
8	Madawachchiya			1		28	11	5			2		9	352	2		7	12	32	383	49	891
9	Kumbukwewa			1		18	3	1					1	65			2	10	6	82	7	196
10	Siyambalawa			10	2	16	9	2					3	393	5	37	6	3	12	103	209	312
11	Lolugaswewa		1	2	2	48	3	6			4		5	170	1		85			386	25	738
12	Kaththaragama			8	3	47	6	2			12	1	25	9	4		8		5	255	151	536
13	Pitiyeya			6	4	41	9				3		2	350	5		6		12	310	425	1,173
14	Galnewagama			5							16	6			6					345		

						43	4	4		3			13	250			11	30			236	972	
15	Musnawa			6	1	30	3	3				2			5		5				300	371	726
16	Walaswewa		8	25	22	72	16	8		1	3	5	8	653	41	4	24	13	78	595	74	669	
17	Malbaligala			17	7	78	15					6	8	298	32		7	12	32	476	58	1,046	
18	Handungama			4	6	52	12	3			1	8	8		14				12	360	302	782	
19	Galnawa Town	1	2	2	9	8	13	3	1	3		1	13	195	5					205	143	604	
20	Helabodugama			14	2	71	23	20				54	67	202	38		13	14	41	482	275	1,316	
21	Bulnawa	1	4	7	20	79	34	11	1				34	675	6		5		17	503	345	1,749	
22	Thoranegama			3	4	33	8	8			4		12	338	8		14	5	12	314	29	792	
23	Karuwalagaswewa			7	23	116	7	18			37	34	59	498	15		15	5		700	726	2,260	
24	Usgala Halmillawa			12		32	5	2			12		4		18		6		46	310	108	585	
25	Midellawa			2		52	6	3		1	4	17	603	26	9	6	30	6		587	59	1,407	
26	Otunupaladigama	1	1	4		54	12	12				12										96	
27	Ihala Kalankuttiya		1	13	7	35	16	4		1	6		2	1,034	62	15	22	2	107	428	311	2,066	
28	Obadayagama	2		27	8	32	8	8			4	8	38	827	9		7	27	158	258	629	2,050	
29	Pahala Kalankuttiya			6	4	32	11	3			2	3	6	63	7	3	11			817	74	1,042	
30	Namalgamuwa			7	2	26	8	2		3				52	3		8			291	67	475	
Total		5	25	218	142	1,239	351	143	2	12	132	170	967	7,273	478	69	358	142	755	9,996	6,077	26,358	

Annexure 8: Summary of the land ownership (Galnewa DS)

	Kandegama Kandulegama	Highlands (Acres)								Paddy land(Acres)							
		Less than 0.5 with Rights Certificates	Less than 0.5 without Rights Certificates	0.5-1 with Rights Certificates	0.5-1 without Rights Certificates	1-5 with Rights Certificates	1-5 without Rights Certificates	More than 5 with Rights Certificates	more than 666 without Rights Certificates	less than 0.5with Rights Certificates	less than 0.5without Rights Certificates	0.5-1 with Rights Certificates	0.5-1 without Rights Certificates	1-5 with Rights Certificates	1-5 without Rights Certificates	more than 5 with Rights Certificates	more than 6 without Rights Certificates
1	Werunkulama	36	10	62	6.5	9		11		27	6.5	80	8	273	17.5		
2	Nagama	6.95		18.5	1	62.5	1.5			3	0.25	6		16			
3	Siyambalangamuwa South	107	12	46	21		15			28	1	74	7.5	105	14		
4	Kandulugamuwa	30	10		3					10	3	28	6	336			
5	Kallanchiya	7	10	35	28	242	40							150	5		
6	Madawachchiya	37	20	35	35	47	25			35	20	40	10	51	30		
7	Kumbukwewa			164	6	453				23		33	17	47			
8	Siyambalawa	6	8.5	34	15	109	22.5			20	12	43	3	223	41		
9	Lolugaswewa	15	3	17	3	75	13			39	7	28	6	41			
10	Kaththaragama	157	84	107	32	37	33			79	26	126	42	31	14		
11	Pitiyeya	200	90	100	30	254	50										
12	Galnewagama	66	3		16						3			2			
13	Musnawa	369	6.5	300		60		50									
14	Walaswewa		6	88.6										87.5			
15	Malbaligala	70		220	23	170	18			90	15	150	20	50			
16	Handungama	12.5	14	33	53	775	60	50	72	5.5	1.5	15	12.5	187.5	15	7.5	12
17	Galnawa Town		30	114.5										572.5			
18	Helabodugama		25	200	6		100		10					337			
19	Bulnawa	50		45.5										332			
20	Thoranegama	28	84	34	57							18	34	62	78		
21	Karuwalagaswewa	200	120											300			

22	Usgala Halmillawa			77.5	10.5									302.5			
23	Midellawa	350	148											145	55		
24	Otunupaladigama	103	92											24	97		
25	Ihala Kalankuttiya			600	145								65	328	215		
26	Obadayagama		225	25	6								6	507	56		30
27	Pahala Kalankuttiya		37	110	70									195	30		
28	Namalgamuwa	17	66.5	143	32.5								13	647	67		
29	Kandegama	46	72	145	52						2		13	346	10		
30	Kandulegama	87.5	32.5								1		3	322.5	4		
Total		2001	1209	2754.6	651.5	2293.5	378	111	82	359.5	98.25	641	266	6020.5	748.5	7.5	42

Annexure 9: Summary of the population (Palagala DS)

	Division	Village	Area (km ²)	Number of Families	Total Population	Total population of the division	Population Density km ⁻²	Distance from the divisional Secretariat km
1	664 -Ipulwahara	Ipulwewara	4.33	228	692	947	219	12
		Sadaragama		46	131			10
		Kattakaduwa		42	124			11
2	665- Maneruwa	Maneruwa	9.93	137	402	730	74	15
		Manakate		110	328			15
3	666- Wambatuwewa	Ulpathey Gama	4.55	65	212	742	163	10
		Konaragama		15	56			9
		Ohomeegama		84	254			8
		Wambatuwewa		70	220			8
4	667- Abangaswewa	Abangaswewa	11.32	152	484	651	58	9
		Kadurugaswewa		21	73			10
		Wapalugama		35	94			12
5	668- Kalugala	Kalugala	32.1	294	1012	1408	44	15
		Ussana		84	396			13
6	669- Parawahagama	Aramandakotuwa	12.85	110	99	1039	81	9
		Kahalle		195	356			12
		Parawahagama		35	584			8.5
7	670- Ardiyagala	Marasinghe Halmilla wewa	6.9	123	421	1020	148	7
		Adiyagala		171	599			7
8	671- Gambiriswewa	Gambiriswewa	3.77	160	514	728	193	9
		Millagoda		63	214			9
9	677- Kiridiwaththa	Kiridiwaththa	6.84	125	458	1016	149	4
		Kudahalmilla wewa		163	558			6
10	678- Meewawa	Diul Wewa	2.21	89	293	451	204	1
		Mee Wewa		22	74			3
		Sandagala		30	84			1.5
11	679- Higuruwewa	Higuruwewa	5.34	115	356	847	159	4
		Kaluarachchiyagama		169	491			5.5
12	680- A/Galkiriyagama	A/Galkiriyagama	3.35	250	919	1685	503	11
		Dennawa		86	338			13
		Pahiminyagama		97	428			10
13	686- Balaluwewa1	Dikadiyaya	6.62	192	641	951	144	6
		Balaluwewa		99	310			5
14	687 -Balaluwewa11	Balaluwewa	2.06	369	1166	1166	566	5.5
15	689- Pahalagama	Pahalagama	3.09	157	539	775	251	4
		Galkatiyagama		65	236			4.5
16	690- Karawilagala	karawilagala	5.57	68	217	454	82	3
		Nanwaththegama		39	127			4

		Peenawa		34	110			3.5
17	691- G/Halmillawewa	Mihiranpitigama	11.1	190	341	1353	122	0.5
		Palagala		114	581			1
		Bamunugama		143	431			1.5
18	692- Gonadeniyagama	Gonadeniyagama	4.23	142	500	1001	237	1.5
		Kudahettiyawa		78	226			1.5
		Mahahettiyawa		29	100			2
		Madagama		52	175			0.5
Total			136.16	5157	16964	16964	3393	

Annexure 10: Summary of the employment (Palagala DS)

	Division	Village	Number of People																				
			Corporations and Board							Private					Self employment					Unemployed		Total	
			Executive grade	Staff grade	Field & Technical Officers	Management Assistant & equal grades	Security	Teachers	Drivers/ Office assistant	Executive grade	Staff grade	Field & Technical Officers	Management Assistant & equal grades	Drivers/ Office assistant	Farming	Animal Husbandry	Fisheries	Factories	Services	Other occupation	Housewife		Unemployment
1	664 - Ipulwahara	Ipulwewara	0	0	4	5	49	9	1	0	0	0	0	0	112	7	0	20	0	3	156	36	402
		Sadaragama	0	0	0	0	3	0	0	0	0	0	0	0	31	1	0	6	0	0	26	12	79
		Kattakaduwa	0	0	1	0	6	0	0	0	0	0	1	32	1	0	5	0	0	28	9	83	
2	665- Maneruwa	Maneruwa	0	0	0	13	25	4	1	0	0	0	20	0	140	0	0	0	0	8	72	24	307
		Manakate	0	0	0	3	11	0	1	0	0	0	14	0	128	0	0	0	0	15	56	18	246
3	666- Wambatuwewa	Ulpathey Gama	0	0	0	1	0	5	0	0	0	0	0	0	0	1	0	3	0	0	77	1	88
		Konaragama	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	11	0	0	82	3	102
		Ohomeegama	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	6	0	0	38	3	49
		Wambatuwewa	0	0	0	1	0	2	0	0	0	0	0	0	0	4	0	14	0	0	84	6	111
4	667- Abangaswewa	Abangaswewa	0	0	0	0	22	0	0	0	0	0	0	2	134	7	0	0	0	0	0	0	165
		Kadurugaswewa	0	0	0	0	8	1	0	0	0	0	0	0	20	1	0	1	0	0	0	0	31
		Wapalugama	0	0	0	0	7	0	0	0	0	0	0	0	30	2	0	0	0	0	0	0	39

5	668- Kalugala	Kalugala	0	0	2	0	17	4	1	0	0	0	0	16	377	41	0	0	1	1	0	481	0	950
		Ussana	0	0	0	0	8	0	0	0	0	0	0	4	122	24	0	0	6	0	222	0	386	
6	669- Parawahagama	Aramandakotuw a	0	0	0	0	0	0	0	0	0	0	0	43	0	0	0	0	0	21	4	68		
		Kahalle	0	0	2	3	19	6	2	0	0	1	1	5	110	1	0	1	2	38	70	70	331	
		Parawahagama	1	5	4	37	6	2	0	0	0	2	0	3	168	3	0	5	1	2	3	92	25	368
7	670- Ardiyagala	Marasinghe Halmilla wewa	3	3	7	20	24	15	5	0	0	0	0	4	66	1	0	5	1	3	30	80	40	316
		Adiyagala	0	0	1	6	16	5	4	0	0	0	0	7	91	4	0	2	1	3	26	30	25	230
8	671- Gambiriswewa	Gambiriswewa	1	0	6	3	0	2	1	0	0	0	4	6	145	12	0	13	0	8	31	35	267	
		Millagoda	0	0	0	0	2	0	0	0	0	0	0	3	68	2	0	5	0	4	12	12	108	
9	677- Kiridiwaththa	Kiridiwaththa	0	0	4	0	18	6	2	0	1	0	5	0	80	1	3	6	8	25	117	25	301	
		Kudahalmilla wewa	0	2	0	0	31	0	3	0	1	0	1	2	140	15	8	5	1	2	23	160	46	449
10	678- Meewawa	Diul Wewa	1	5	0	35	3	0	0	0	12	0	2	10	6	0	0	0	0	0	0	25	99	
		Mee Wewa	1	0	0	0	4	2	0	0	0	0	2	0	2	2	0	0	0	0	0	4	17	
		Sandagala	0	0	0	1	3	0	0	0	0	1	4	0	12	2	0	0	0	0	0	8	31	
11	679- Higuruwewa	Higuruwewa	0	4	5	0	21	7	1	0	0	0	0	0	270	3	0	5	0	6	26	31	379	
		Kaluarachchiyag ama	0	0	3	0	28	3	2	0	0	0	0	0	321	5	0	6	0	13	40	46	467	
12	680- A/Galkiriyagama	A/Galkiriyagama	0	0	0	0	25	26	4	0	0	0	0	0	80	10	2	0	0	0	0	0	147	
		Dennawa	0	0	0	0	15	0	1	0	0	0	0	0	31	5	0	0	0	0	0	0	52	
		Pahiminyagama	0	0	0	0	19	0	1	0	0	0	0	0	40	12	2	0	0	0	0	0	74	
13	686- Balaluwewa1	Dikadiyaya	0	0	0	0	2	1	1	0	0	0	0	0	38	5	13	4	23	0	0	195	58	457
		Balaluwewa	0	2	1	0	8	2	0	0	0	0	0	1	17	1	21	8	0	0	68	17	146	
14	687 - Balaluwewa11	Balaluwewa	0	0	6	0	2	20	0	0	0	0	1	0	15	40	15	9	0	0	0	0	108	
15	689- Pahalagama	Pahalagama	0	0	5	0	17	7	0	0	0	5	0	8	145	11	0	10	0	4	31	35	278	

		Galkatiyagama	0	1	2	0	5	3	0	0	0	2	0	3	65	5	0	2	0	2	12	12	114	
16	690-Karawilagala	karawilagala	0	2	0	0	9	7	0	0	5	0	1	17	37	0	0	5	0	7	0	127	217	
		Nanwaththegama	0	1	0	0	4	3	0	0	2	0	0	11	15	0	0	7	0	1	83	127	254	
		Peenawa	0	0	0	0	5	1	0	0	0	0	0	9	13	0	0	3	0	4	0	75	110	
17	691-G/Halmillawewa	Mihiranpitigama	1	0	0	35	15	6	2	0	0	6	0	0	0	0	0	0	0	0	0	0	65	
		Palagala	3	0	3	40	13	13	3	0	0	10	0	0	0	0	0	0	0	0	0	0	85	
		Bamunugama	1	0	1	12	11	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	27	
18	692-Gonadeniyagama	Gonadeniyagama	0	0	3	6	38	14	3	0	1	0	6	2	200	14	1	6	4	0	146	5	449	
		Kudahettiyawa	0	0	0	0	8	2	0	0	0	0	4	0	60	20	0	10	2	0	76	2	184	
		Mahahettiyawa	0	0	1	0	1	0	0	0	0	0	1	0	20	13	8	6	1	0	20	2	73	
		Madagama	0	0	1	0	8	2	0	0	0	0	4	1	40	1	0	0	1	0	54	2	114	
Total			12	25	62	22	53	18	0	22	27	70	115	3464	285	19	4	208	8	5	220	2686	970	9423

Annexure 11: Summary of the population (Polpithigama DS)

	Grama Niladari Division	Race , Total					Relijoin					
		Sinhala	Tamil	Muslim	Burger	Malay	Total	Buddhist	Hindu	Islam,	Catholic	Total
1	Siyabalangamuwa	857	0	0	0	0	857	857	0	0	0	857
2	Thalawa	980	2	1	0	0	983	982	0	1	0	983
3	Thalada Pitiys	1132	0	0	0	0	1132	1132	0	0	0	1132
4	Kubukkadawala	1362	0	0	0	0	1362	1362	0	0	0	1362
5	Kambuatawana	1202	0	0	0	0	1202	1202	0	0	0	1202
6	Galgiriya	806	0	0	0	0	806	806	0	0	0	806
7	Pohorawaththa	980	0	0	0	0	980	980	0	0	0	980
8	Moragollagama	934	0	0	0	0	934	930	0	0	4	934
9	Bulnawa	1016	0	1	0	0	1017	1014	0	0	3	1017
10	Serugasyaya	522	1	0	0	0	523	514	1	0	8	523
11	Nikawewa	530	0	0	0	0	530	530	0	0	0	530
12	Galahitiyagama	643	0	0	0	0	643	642	0	0	1	643
13	Herathgama	710	0	0	0	0	710	710	0	0	0	710
14	Saliyagama	958	0	0	0	0	958	955	0	0	3	958
15	Ihalathibiriya	1097	3	0	0	0	1100	1087	3	0	10	1100
16	Mamanugama	755	0	0	0	0	755	755	0	0	0	755

17	Pathirannegama	1045	0	0	0	0	1045	1045	0	0	0	1045
18	Madagalla	892	0	0	0	0	892	892	0	0	0	892
19	Kiribamunegama	1075	0	0	0	0	1075	1075	0	0	0	1075
20	Dambe	675	0	0	0	0	675	672	0	0	3	675
21	Pothuwila	2344	1	0	0	0	2345	2310	0	0	35	2345
22	Pallekele	1924	0	0	0	0	1924	1905	0	0	19	1924
23	Bogolla	729	1	0	0	0	730	728	2	0	0	730
24	Kukukulawa	1760	1	2	0	0	1763	1686	1	54	22	1763
25	Polpithigama	1711	0	0	0	0	1711	1703	0	0	8	1711
26	Amunukole	1089	0	1	0	0	1090	1085	0	0	5	1090
27	Bhathigamuwa	764	0	0	0	0	764	764	0	0	0	764
28	Galagedaragama	905	0	1	0	0	906	905	0	1	0	906
29	Niyadawanaya	815	0	0	0	0	815	815	0	0	0	815
30	Miriswewa	825	0	0	0	0	825	825	0	0	0	825
31	Malassna	950	1	0	0	0	951	951	0	0	0	951
32	Hath Pokuna	1179	0	0	0	0	1179	1179	0	0	0	1179
33	Thalpathwewa	1368	0	0	0	0	1368	1368	0	0	0	1368
34	Galkatiyagama	916	0	0	0	0	916	916	0	0	0	916
35	Dematagala	1194	0	2	0	0	1196	1196	0	0	0	1196
36	Koruwawa	1367	0	0	0	0	1367	1367	0	0	0	1367

37	Galtanwewa	1279	1	0	0	0	1280	1210	0	0	70	1280
38	Indigolla	624	1	0	0	0	625	623	0	0	2	625
39	Balagolla	1013	0	0	0	0	1013	1013	0	0	0	1013
40	Rawaella	963	0	0	0	0	963	963	0	0	0	963
41	Dgama	1006	0	0	0	0	1006	1004	0	0	2	1006
42	Maliya North	1842	5	4	0	0	1851	1842	5	4	0	1851
43	Maeliya South	1957	0	1	0	0	1958	1922	0	1	35	1958
44	Agare	950	2	0	0	0	952	946	2	0	4	952
45	Rambe	1668	1	0	0	0	1669	1654	0	0	15	1669
46	Wadurassa	678	0	1	0	0	679	678	0	1	0	679
47	Kalugalla	1300	0	1	0	0	1301	1300	0	1	0	1301
48	Welangolla	557	0	0	0	0	557	557	0	0	0	557
49	Ihala Thelibiyawa	1039	1	0	0	0	1040	1040	0	0	0	1040
50	Ambagas wewa	1102	0	0	0	0	1102	1101	0	0	1	1102
51	Bakmee Wewa	1006	0	0	0	0	1006	996	0	0	10	1006
52	Thalamalgama	667	0	0	0	0	667	660	0	0	7	667
53	Kalawana	1215	0	0	0	0	1215	1167	0	0	48	1215
54	Welidalla	878	0	0	0	0	878	873	0	0	5	878
55	Deegama	1050	0	0	0	0	1050	1050	0	0	0	1050
56	Ponnilawa	502	0	0	0	0	502	502	0	0	0	502

57	Dekaduwala	809	0	1	0	0	810	793	0	0	17	810
58	Thambuwa	1860	0	0	0	0	1860	1830	0	0	30	1860
59	Doraweruwa	1650	0	0	0	0	1650	1649	0	0	1	1650
60	Hangamuwa	902	2	0	0	0	904	894	2	8	0	904
61	Uthuru Walla	1160	0	0	0	0	1160	1158	0	0	2	1160
62	Henawa	872	0	1	0	0	873	859	0	3	11	873
63	Thalwahara	933	0	0	0	0	933	929	0	0	4	933
64	Kosgaha Ela	1102	1	0	0	0	1103	1099	0	0	4	1103
65	Makulpotha	649			0	0	649	649	0	0	0	649
66	Hakwatunawa	949	0	0	0	0	949	949	0	0	0	949
67	Siyabala Wewa	848	0	0	0	0	848	839	0	0	9	848
68	Thalakola wawa	981	0	0	0	0	981	981	0	0	0	981
69	Elagamuwa	887	0	0	0	0	887	887	0	0	0	887
70	Rakaula	832	10	0	0	0	842	832	10	0	0	842
71	Nikawahara	3194	0	0	0	0	3194	3193	0	0	1	3194
72	Halmillawawa	1947	0	0	0	0	1947	1939	0	0	8	1947
73	Walipitiya	1639	4	0	0	0	1643	1635	0	0	8	1643
74	Moreththa	910	0	0	0	0	910	823	0	0	87	910
75	Karalankadawala	1494	0	0	0	0	1494	1494	0	0	0	1494
76	Polgahangoda	1361	0	0	0	0	1361	1361	0	0	0	1361

77	Agulgamuwa	1205	0	0	0	0	1205	1201	0	0	4	1205
78	Imhamnegama	738	0	0	0	0	738	738	0	0	0	738
79	Baddegama	1676	0	0	0	0	1676	1674	0	0	2	1676
80	Madahapola	1664	32	1	0	0	1697	1696	0	1	0	1697
81	Madakanda	1132	0	0	0	0	1132	1132	0	0	0	1132
82	Paragaha ela	583	0	0	0	0	583	583	0	0	0	583
	Total	91284	70	18	0	0	91372	90763	26	75	508	91372

Annexure 12: Summary of the employment (Polpithigama DS)

	Grama Niladari Divisioner	Government sector	Private sector	Agriculture	Self employment	Foreign employment	Other	Total
1	Siyabalangamuwa	94	10	92	0	10	40	246
2	Thalawa	82	127	209	72	13	96	599
3	Thalada Pitiys	85	52	92	18	14	42	303
4	Kubukkadawala	74	69	313	0	19	37	512
5	Kambuwaterawana	137	92	192	22	14	58	515
6	Galgiriyawa	55	65	182	12	10	13	337
7	Pohorawaththa	68	60	149	6	24	62	369
8	Moragollagama	47	68	109	30	13	81	348
9	Bulnawa	42	92	390	0	21	92	637
10	Serugasyaya	58	18	127	23	5	13	244
11	Nikawewa	76	25	174	21	5	3	304
12	Galahitiyagama	42	21	156	16	16	96	347
13	Herathgama	97	16	199	23	6	16	357
14	Saliyagama	40	42	328	0	5	31	446
15	Ihalathibiriyawa	76	54	384	12	15	14	555
16	Mamanugama	58	30	262	3	24	7	384
17	Pathirannegama	85	43	216	11	16	57	428
18	Madagalla	66	58	157	14	9	32	336
19	Kiribamunegama	65	86	299	68	41	82	641
20	Dambe	25	27	181	0	21	27	281
21	Pothuwila	83	182	620	206	90	150	1331
22	Pallekele	98	157	423	116	45	215	1054
23	Bogolla	37	34	160	20	10	44	305
24	Kukukulawa	120	265	290	10	15	180	880
25	Polpithigama	88	178	460	40	35	26	827

26	Amunukole	53	38	145	9	8	34	287
27	Bhathigamuwa	97	29	124	61	18	31	360
28	Galagedaragama	45	69	112	49	6	36	317
29	Niyadawanaya	23	56	183	4	24	58	348
30	Miriswewa	66	35	62	2	5	12	182
31	Malassna	54	22	135	11	38	66	326
32	Hath Pokuna	71	132	106	42	24	143	518
33	Thalpathwewa	95	89	314	25	16	40	579
34	Galkatiyagama	22	39	163	0	16	38	278
35	Dematagala	67	48	591	43	11	84	844
36	Koruwawa	114	55	319	32	11	49	580
37	Galtanwewa	87	27	64	17	12	18	225
38	Indigolla	29	50	220	20	20	32	371
39	Balagolla	96	43	233	42	16	23	453
40	Rawaella	63	42	98	60	15	80	358
41	Dgama	29	77	52	64	16	133	371
42	Maliya North	35	164	171	21	61	304	756
43	Maeliya South	69	68	290	29	38	95	589
44	Agare	65	39	125	49	18	41	337
45	Rambe	49	75	116	109	33	212	594
46	Wadurassa	22	15	56	10	16	27	146
47	Kalugalla	41	118	366	36	24	137	722
48	Welangolla	22	47	169	13	11	20	282
49	Ihala Thelibiyawa	36	80	192	147	35	80	570
50	Ambagas wewa	49	134	95	22	14	61	375
51	Bakmee Wewa	40	73	375	0	5	80	573
52	Thalamalgama	37	102	170	22	29	0	360
53	Kalawana	48	76	230	0	12	120	486
54	Welidalla	35	49	228	0	30	92	434
55	Deegama	15	44	314	30	18	58	479

56	Ponnilawa	37	49	60	51	11	21	229
57	Dekaduwala	40	75	100	10	6	37	268
58	Thambuwa	37	193	260	37	10	0	537
59	Doraweruwa	38	54	133	54	19	60	358
60	Hangamuwa	19	59	204	39	7	62	390
61	Uthuru Walla	37	30	171	0	40	55	333
62	Henawa	17	22	181	22	13	64	319
63	Thalwahara	28	68	80	65	16	87	344
64	Kosgaha Ela	46	58	64	67	18	97	350
65	Makulpotha	53	37	96	31	4	20	241
66	Hakwatunawa	76	93	201	0	17	56	443
67	Siyabala Wewa	74	21	278	21	22	0	416
68	Thalakola wawa	61	81	138	22	15	25	342
69	Elagamuwa	53	48	232	0	18	109	460
70	Rakaula	52	43	110	33	12	60	310
71	Nikawahara	86	101	294	32	48	261	822
72	Halmillawawa	44	49	331	137	62	123	746
73	Walipitiya	75	28	324	96	57	153	733
74	Moreththa	31	76	176	0	23	123	429
75	Karalankadawala	49	76	150	27	30	110	442
76	Polgahangoda	52	178	237	19	12	37	535
77	Agulgamuwa	68	60	145	10	40	109	432
78	Imhamnegama	52	31	299	6	6	143	537
79	Baddegama	82	42	165	90	40	89	508
80	Madahapola	87	76	209	87	37	115	611
81	Madakanda	38	86	120	9	18	30	301
82	Paragaha ela	17	45	0	29	11	4	106
	Total	4721	5585	16740	2706	1708	5768	37228

Annexure 13: Summary of the Population (Kekirawa DS Division)

Grama Niladari Division	Population	Family	Male	Female
Karukkulama	715	238	368	347
Mailagaswewa	810	245	411	399
Nikiniyawa	1205	430	635	570
Olembawa	2746	776	1462	1284

Annexure 14: Summary of the employment (Kekirawa DS Division)

Grama Niladari Division	Government	Private	Business	Agriculture	Self-employment	Foreign	Daily work
Karukkulama	97	21	0	69	59	24	0
Mailagaswewa	94	44	15	50	14	20	27
Nikiniyawa	225	92	38	47	39	21	58
Olembawa	35	86	139	366	22	137	207

Annexure 15: Summary of the land use patterns (Kekirawa DS Division)

Grama Niladari Division	Cultivation				Forest		Other								
	Irrigation	Rain Water	Coconut	Othercrops	Thick	Open	Cultivation	Small forest/Channa	Wetland	Home gardern	Reservoirs	Buildings	Sand	Abandland	Other
Karukkulama	2	0	9	18	0	60	0	0	0	29.92	0	0.6	0	0	2.6
Mailagaswewa															
Nikiniyawa	0	0	10	0	0	0	30	30	0	2.02	2	3	0	0	3
Olembawa	125	26	31	53	0	0	312	0	0	12	0	48	0	0	4

The appendices given below were compiled by DWC GEF project of 1998
Annexure 16: Mammals recorded from Kahalle-Pallekele Sanctuary

(RL Categories - Red List Categories: VU – Vulnerable; EN – Endangered; CR – Critically Endangered; NT – Near Threaten; LC – Least Concerned; DD – Data Deficient; En - Endemic) (Source: IUCN, 2012) M – Migrant Species; R – Residential; S – Sinhala Name; E – English name; T – Tamil Name

Family	Scientific name	Common Name	RL category
Bovidae	<i>Bubalus arnee</i> (Kerr, 1792)	E: Wild buffalo S: Kulu Haraka /Wal Meema	VU
Canidae	<i>Canis aureus</i> Linnaeus, 1758	E: Jackal S: Nariya / Hiwala	LC
Cercopithecidae	<i>Macaca sinica</i> (Linnaeus, 1771)	E: Sri Lanka toque monkey S: Sri Lanka Rilawa	LC/En
	<i>Semnopithecus vetulus</i> (Erxleben,1777)	E: Sri Lanka purple-faced langur S: Sri Lanka kaluwandura	EN/En
Cercopithecidae	<i>Semnopithecus priam</i> Blyth, 1844	E: Sri Lanka toque monkey S: Sri Lanka Rilawa	LC
Cervidae	<i>Axis axis</i> (Erxleben, 1777)	E: Spotted deer S: Tith Muwa	LC
	<i>Rusa unicolor</i> Kerr, 1792	E: Sambur S: Gona	NT
	<i>Muntiacus muntjak</i> (Zimmermann, 1780)	E: Barking deer S: Olu Muwa /Weli Muwa	NT
Elephantidae	<i>Elephas maximus</i> Linnaeus, 1758	E: Elephant S: Etha/Aliya	EN
Felidae	<i>Panthera pardus</i> (Linnaeus, 1758)	E: Leopard S: Kotiya/Diviya	EN
Herpestidae	<i>Herpestes vitticollis</i> Bennett, 1835	E: Stripe-necked or badger mongoose S: Maha Mugatiya/Gal Mugatiya	VU
	<i>Herpestes fuscus</i> Gray, 1837	E: Brown mongoose S: Bora Mugatiya	LC
	<i>Herpestes smithii</i> Gray, 1837	E: Black-tipped or Ruddy mongoose S: Rath Mugatiya/Hothambuwa	LC
	<i>Herpestes edwardsii</i> (Geoffroy, 1818)	E: Grey mongoose; S: Alu Mugatiya	LC
Hystriidae	<i>Hystrix indica</i> (Kerr, 1792)	E: Porcupine S: Ittewa	LC

Leporidae	<i>Lepus nigricollis</i> Cuvier, 1823	E: Black-naped hare S: Wal Hawa	LC
Manidae	<i>Manis crassicaudata</i> Gray, 1827	E: Pangolin S: Kaballewa	NT
Mustelidae	<i>Lutra lutra</i> (Linnaeus, 1758)	E: Otter S: Diyaballa	VU
Sciuridae	<i>Funambulus palmarum</i> (Linnaeus, 1766)	E: Palm squirrel S: Leena	LC
	<i>Ratufa macroura</i> (Pennant, 1769)	E: Giant squirrel S: Dandu-leena	LC
Suidae	<i>Sus scrofa</i> Linnaeus, 1758	E: Wild boar S: Wal Ura	LC
Tragulidae	<i>Moschiola meminna</i> Erxleben, 1777	E: Sri Lanka mouse-deer S: Sri Lanka Meminna	LC/En
Ursidae	<i>Melursus ursinus</i> (Show & Nodder, 1791)	E: Sloth bear S: Walaha	EN
	<i>Viverricula indica</i> (Desmarest, 1817)	E: Ring-tailed civet S: Urulewa	LC
Viverridae	<i>Paradoxurus hermaphoditus</i> (Pallas, 1777)	E: Palm cat S: Uguduwa	LC

Annexure 17: Birds recorded from Kahalle-Pallekele Sanctuary

Family	Scientific name	Common Name	RL category
Accipitridae	<i>Elanus caeruleus</i> (Desfontaines, 1789)	E: Black-Winged Kite S: Kaluuris pathanakussa, kurulugoya T: Karunthol parunthu	NT
	<i>Haliastur indus</i> (Boddaert, 1783)	E: Brahminy Kite S: Bamunu piyakussa Ukussa T: Sem parunthu	LC
	<i>Haliaeetus leucogaster</i> (Gmelin, 1788)	E: White-Bellied Sea eagle S: Kusa alli muhudukussa T: Ven vayitru kadat kaluhu	LC
	<i>Ichthyophaga ichthyaetus</i> (Horsfield, 1821)	E: Grey-Headed Fish-eagle S: Aluhis masukussa/Wewa rajaliya T: Siriya sambalthalai meen kaluhu	NT
	<i>Spilornis cheela</i> (Latham, 1790)	E: Crested Serpent-eagle S: Silu sarapakussa T: Kondai paambu kaluhu	LC
	<i>Accipiter badius</i> (Gmelin, 1788)	E: Shikra S: Kurulugoya T: Valooru	LC
	<i>Ictinaetus malayensis</i> (Temminck, 1822)	E: Black Eagle S: Kalukussa/kalu rajaliya T: Karung kaluhu	NT
	<i>Hieraetus kienerii</i> (G.de Sparre, 1835)	E: Rufous-bellied Eagle S: Kusarath rajaliya T: Sevvayitru kaluhu	NT
	<i>Spizaetus cirrhatus</i> (Gmelin, 1788)	E: Changeable Hawkeagle S: Perali kondakussa/Konde Rajaliya T: Niram marum kaluhu	LC
	<i>Circus aeruginosus</i> (Linnaeus, 1758) M	E: Western Marsh Harrier	
Aegithinidae	<i>Aegithina tiphia</i> (Linnaeus, 1758)	E: Common Iora S: Podu iorava T: Manjal chittu	LC
Alcedinidae	<i>Pelargopsis capensis</i> (Linnaeus, 1766)	E: Stork-billed Kingfisher S: Manathudu maha Pilihuduwa	LC

		T: Parutha alahu meen kothi	
	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)	E: White-Throated Kingfisher S: Gelasudu medi pilihuduwa T: Ven marabu meen kothi	LC
	<i>Alcedo atthis</i> (Linnaeus, 1758)	E: Common Kingfisher S: Mal Pilihuduwa T: Siriya neela meen kothi	LC
	<i>Ceryle rudis</i> (Linnaeus, 1758)	E: Pied Kingfisher S: Gomara pilihuduwa T: Siriya karuppu vellai meen kothi	LC
Anatidae	<i>Dendrocygna javanica</i> (Horsfield, 1821)	E: Lesser Whistling-duck S: Heen thamba seruwa T: Siriya seelkani siravi	LC
Anhingidae	<i>Anhinga melanogaster</i> Pennant, 1769	E: Oriental Darter S: Ahikava T: Paambu thara	LC
Apodidae	<i>Collocalia unicolor</i> (Jerdon, 1840)	E: Indian Swiftlet S: Indu upa-thurithaya Wehilihiniya T: Sinna ulavaaran	LC
	<i>Tachymarptis melba</i> (Linnaeus, 1758)	E: Alpine Swift S: Alpine piri-thurithaya T: Alphine ulavaaran	EN
	<i>Apus affinis</i> (Gray, 1830)	E: Little Swift S: Punchi thurithaya T: Naadu ulavaaran	LC
	<i>Cypsiurus balasiensis</i> (Gray, 1829)	E: Asian Palm-swift S: Asian thal-thurithaya T: Panai ulavaaran	LC
Ardeidae	<i>Nycticorax nycticorax</i> (Linnaeus, 1758)	E: Black-Crowned Nightheron S: Rekana- kokka T: Irak kokku	NT
	<i>Ardeola grayii</i> (Sykes, 1832)	E: Indian Pond-heron S: Kana kokka T: Mudaiyan	LC
	<i>Bubulcus ibis</i> (Linnaeus, 1758)	E: Cattle Egret S: Gerikokka, Harak kokka T: Unnik kokku	LC
	<i>Egretta garzetta</i> (Linnaeus, 1766)	E: Little Egret S: Punchi anu-koka/sudu kokka T: Sinna kokku	LC

	<i>Mesophoyx intermedia</i> (Wagler, 1829)	E: Intermediate Egret S: Sudu medi-kokka T: Naduthara kokku	LC
	<i>Casmerodius albus</i> (Linnaeus, 1758)	E: Great Egret S: Sudumaha kokka T: Periya kokku	LC
	<i>Ardea cinerea</i> Linnaeus, 1758	E: Grey Heron S: Alu kokka T: Sambal kokku	LC
	<i>Ardea purpurea</i> Linnaeus, 1766	E: Purple Heron S: Karaval kokka T: Senneela kokku	LC
Bucerotidae	<i>Ocyrceros gingalensis</i> (Shaw, 1811)	E: Sri Lanka Grey Hornbill S: Sri Lanka Alu Kandetta T: Ilankai naarai irattai chondu kuruvi	LC/En
	<i>Anthracoceros coronatus</i> (Boddaert, 1783)	E: Malabar Pied Hornbill S: Poru Kandetta T: Malabar karuppuvellai Iruvaayan	LC
Campephagidae	<i>Tephrodornis pondicerianus</i> (Gmelin, 1789) PE	E: Common Woodshrike S: Podu vanasaratiththa T: Kaatu keechaan	LC/En
	<i>Coracina macei</i> (Lesson, 1831)	E: Large Cuckooshrike S: Maha kovulsaratiththa T: Periya kuyil keechaan	LC
	<i>Coracina melanoptera</i> (Rüppell, 1839)	E: Black-headed Cuckooshrike S: Kaluhis kovulsaratiththa T: Karunthalai kuyil Keechaan	LC
	<i>Caprimulgus atripennis</i> Jerdon, 1845	E: Jerdon's Nightjar S: Digupenda bimbassa T: Jerdon pakki	LC
	<i>Caprimulgus indicus</i> Latham, 1790	E: Grey Nightjar S: Alu bimbassa T: Kaatu pakki	VU
	<i>Caprimulgus asiaticus</i> Latham, 1790	E: Indian Nightjar S: Indu Bimbassa T: Siru pakki	LC
Charadriidae	<i>Charadrius dubius</i> Scopoli, 1786	E: Little Ringed Plover S: Punchi mala oleviya T: Sinna pattani uppuk kothi	VU
	<i>Vanellus indicus</i> (Boddaert, 1783)	E: Red-Wattled Lapwing S: Rath yatimal kirala T: Sihappu mooku aart kaat i	LC

	<i>Charadrius dubius</i> Scopoli 1786 R/M	E: Little Ringed Plover	
Chloropseidae	<i>Chloropsis jerdoni</i> (Blyth, 1844)	E: Jerdon's Leafbird S: Jaradan kolarisiya Girakurulla T: Jerdon pachaichittu	LC
	<i>Chloropsis aurifrons</i> (Temminck, 1829)	E: Golden Fronted Leafbird S: Ran nalal kolarisiya T: Pachaichittu	LC
Ciconiidae	<i>Mycteria leucocephala</i> (Pennant, 1769)	E: Painted Stork S: Lathuvakiya T: Manjalmooku naarai	LC
	<i>Anastomus oscitans</i> (Boddaert, 1783)	E: Asian Openbill S: Vivarathuduwa T: Naththai-kuththi-narai	LC
	<i>Ciconia episcopus</i> (Boddaert, 1783)	E: Woolly-Necked Stork S: Padili manava T: Venkaluthu naarai	NT
	<i>Leptoptilos javanicus</i> (Horsfield, 1821)	E: Lesser Adjutant S: Heen bahuru-manava T: Siriyapotha	VU
Cisticolidae	<i>Cisticola juncidis</i> (Rafinesque, 1810)	E: Zitting Cisticola S: Iri Pavansariya T: Naatu visirivaal kathir Kuruvi	LC
	<i>Prinia hodgsonii</i> Blyth, 1844	E: Gray-breasted Prinia S: Layalu prinia T: Frankkin kathir kuruvi	LC
	<i>Prinia inornata</i> Sykes, 1832	E: Plain Prinia S: Sarala prinia T: Kathir kuruvi	LC
	<i>Prinia socialis</i> Sykes, 1832	E: Ashy Prinia S: Alu prinia T: Sambal kathir kuruvi	LC
	<i>Prinia sylvatica</i> Jerdon, 1840	E: Jungle Prinia S: Vana prinia, Hambu kurulla T: Kaatu kathir kuruvi	LC
Columbidae	<i>Stigmatopelia chinensis</i> (Scopoli, 1786)	E: Spotted Dove S: Alu-kobeiya T: Pulli Puraa	LC
	<i>Chalcophaps indica</i> (Linnaeus, 1758)	E: Emerald Dove S: Neela kobeiya T: Pathekai Puraa	LC
	<i>Treron bicinctus</i> (Jerdon, 1840)	E: Orange-breasted Green-pigeon	LC

		S: Layaran batagoya T: Orange maarbu Pachai Puraa	
	<i>Treron pompadora</i> (Gmelin, 1789) PE	E: Pompadour Green Pigeon S: Pitadam Batagoya T: Sambal nettri Pachai Puraa	LC/ proposed En)
	<i>Ducula aenea</i> (Linnaeus, 1766)	E: Green Imperial-Pigeon S: Nil Mahagoya T: Pachai arasa Puraa	LC
Coraciidae	<i>Coracias benghalensis</i> (Linnaeus, 1758)	E: Indian Roller S: Dumbonna T: Panankadai, Kottai-kili	LC
Cuculidae	<i>Clamator jacobinus</i> (Boddaert, 1783)	E: Pied Cuckoo S: Gomara kondakoha T:Kadalai kuyil	LC
	<i>Cuculus micropterus</i> Gould, 1838	E: Indian Cuckoo S: Indu kokilaya	LC
	<i>Cacomantis sonneratii</i> (Latham, 1790)	E: Banded Bay Cuckoo S: Vaira anukoha T: Sempaluppu vari kuyil	NT
	<i>Surniculus lugubris</i> (Horsfield, 1821)	E: Drongo Cuckoo S: Kavudukoha T: Karichan kuyil	NT
	<i>Eudynamys scolopaceus</i> (Linnaeus, 1758)	E: Asian Koel S: Kovula T: Asia Kuyil	LC
	<i>Phaenicophaeus viridirostris</i> (Jerdon, 1840)	E: Blue-faced Malkoha S: Wathanil malkoha T: Neela muha malkoha	LC
	<i>Phaenicophaeus pyrrhocephalus</i> (Pennant, 1769)	E:Sri Lanka Red-faced Malkoha S: Sri Lanka Watharathu Malkoha T: Ilankai semmuka malkoha	VU/En
	<i>Phaenicophaeus leschenaultii</i> (Lesson, 1830)	E:Sirkeer Malkoha S:Pathan Malkoha T: Sevvalahu malkoha	VU
	<i>Centropus sinensis</i> (Stephens, 1815)	E: Greater Coucal S: Atikukula T: Periya sembaham	LC
Dicaeidae	<i>Dicaeum erythrorhynchos</i> (Latham, 1790)	E: Pale Billed Flowerpecker S: Lathudu Pililichcha T: Dickel malar kothi	LC
Dicruridae	<i>Dicrurus caerulescens</i> (Linnaeus, 1758)	E: White-bellied Drongo S: Kavuda T: Venvayittru karichaan	LC

	<i>Dicrurus paradiseus</i> (Linnaeus, 1766)	E: Greater Racket-tailed Drongo S: Maha kavuda T: Thuduppuval karichaan	NT
Estrildidae	<i>Lonchura striata</i> (Linnaeus, 1766)	E: White Rumped Munia S: Nithamba sudu Weekurulla T: Ven muthuhu sillai	LC
	<i>Lonchura punctulata</i> (Linnaeus, 1758) R	E: Scaly-breasted Munia	
	<i>Lonchura Malacca</i> (Linnaeus, 1766) R	E: Tricoloured Munia	
Hemiprocidae	<i>Hemiprocne coronata</i> (Tickell, 1833)	E: Crested Treeswift S: Silu ruk-thurithaya T: Kondai ulavaaran	LC
Jacaniidae	<i>Hydrophasianus chirurgus</i> (Scopoli, 1786)	E: Pheasant-Tailed Jacana S: Savul-diyasana Pan kukula T: Neela vaal illaik koli	LC
Laniidae	<i>Lanius cristatus</i> (Linnaeus, 1758) M	E: Brown Shrike	
Meropidae	<i>Merops orientalis</i> Latham, 1802	E: Little Green Bee-eater S: Punchi binguharaya T: Siriya pachai panchuruttaan	LC
	<i>Merops philippinus</i> Linnaeus, 1766	E: Blue-tailed Bee-eater S: Nilpenda binguhariya	CR
	<i>Merops leschenaulti</i> Vieillot, 1817	E: Chestnut-headed Bee eater S: Thambalahis binguharaya T: Senthalai panchuruttan	LC
Monarchidae	<i>Terpsiphone paradise</i> (Linnaeus, 1758) R/M	E: Asian Paradise Flycatcher	
	<i>Muscicapa muttui</i> (Layard, 1854) M	E: Brown-breasted Flycatcher	
	<i>Hypothymis azurea</i> (Boddaert, 1783)	E: Black-naped Monarch S: Kalu gelasi radamara T: Karumpidari arasae Pidipaan	LC
	<i>Terpsiphone paradise</i> (Linnaeus, 1758)	E: Asian Paradise Flycatcher S: Asia rahanmara, Redi hora T: Arasavaal eepidipaan	LC
Motacillidae	<i>Anthus rufulus</i> Vieillot, 1818	E: Paddyfield Pipit S: Keth waratichcha T: Vayal nettaikkaadi	LC

Muscicapidae	<i>Copsychus saularis</i> (Linnaeus, 1758)	E: Oriental Magpie Robin S: Polkichcha T: Karuppu vellai solaippadi	LC
	<i>Saxicoloides fulicatus</i> (Linnaeus, 1766)	E: Indian Robin S: Kalukichcha, Kalu polkichcha T: Karunj chittu	LC
	<i>Copsychus malabaricus</i> (Scopoli, 1788)	E: White Rumped Shama S: Vana Polkichcha T: Solanippaadi	LC
	<i>Cyornis tickelliae</i> Blyth, 1843	E: Tickell's Blue Flycatcher S: Layaran nil-masimara Kopi kurulla T: Tickell neelaee pidippaan	LC
Nectariniidae	<i>Nectarinia zeylonica</i> (Linnaeus, 1766)	E: Purple Rumped Sunbird S: Nithamba dam sutikka T: Oothapitta thenchittu	LC
	<i>Nectarinia lotenia</i> (Linnaeus, 1766)	E: Long Billed Sunbird S: Dikthudu Sutikka T: Loten thenchittu	LC
	<i>Nectarinia asiatica</i> (Latham, 1790)	E: Purple Sunbird S: Dam sutikka T: Ootha thenchittu	LC
Oriolidae	<i>Oriolus xanthornus</i> (Linnaeus, 1758)	E: Black Hooded Oriole S: Kahakurulla T: Karunthalai maangkuyil	LC
Pelecanidae	<i>Pelecanus philippensis</i> Gmelin, 1789	E: Spot-billed Pelican S: Thithhota pasthuduwa T: Pullialahu koolikkada	LC
Phalacrocoracidae	<i>Phalacrocorax niger</i> (Vieillot, 1817)	E: Little Cormorant S: Punchi diyakava T: Siriya neerkaham	LC
	<i>Phalacrocorax fuscicollis</i> Stephens, 1826	E: Indian Cormorant S: Indu diyakava T: Naduthoura neerkaaham	LC
Phasianidae	<i>Galloperdix bicalcarata</i> (Forster, 1781)	E: Sri Lanka Spurfowl S: Sri Lanka haban kukula T: Sinnak kaatuk koli	NT/En
	<i>Gallus lafayetii</i> Lesson, 1831	E: Sri Lanka Junglefowl S: Sri Lanka Wali kukula T: Kattu-koli	LC/En
	<i>Pavo cristatus</i> Linnaeus, 1758	E: Indian Peafowl S: Monara T: Neela mayil	LC

Ploceidae	<i>Ploceus philippinus</i> (Linnaeus, 1766)	E: Baya Weaver S: Ruk Wadukurulla T: Thookkanaang kuruvi	LC
Podicipedidae	<i>Tachybaptus ruficollis</i> (Pallas, 1764)	E: Little Grebe S: Punchi gembithuruva T: Sinna mookulippan	LC
Psittacidae	<i>Loriculus beryllinus</i> (Forster, 1781)	E: Sri Lanka Hanging Parrot S: Sri Lanka giramaliththa T: Ilankai sinna kili	LC/En
	<i>Psittacula eupatria</i> (Linnaeus, 1766)	E: Alexandrine Parakeet S: Labu girawa T: Periya pachai Kili	LC
	<i>Psittacula krameri</i> (Scopoli, 1769)	E: Rose-ringed Parakeet S: Rena girawa T: Pachai Kili	LC
Pycnonotidae	<i>Pycnonotus melanicterus</i> (Gmelin, 1789)	E: Black-crested Bulbul S: Kalu isasi kondaya T: Karungkondai sinnaan	LC/ proposed En
	<i>Pycnonotus cafer</i> (Linnaeus, 1766)	E: Red-vented Bulbul S: Kondaya T: Sinnaan	LC
	<i>Pycnonotus luteolus</i> (Lesson, 1841)	E: White Browed Bulbul S: Bamasudu Kondaya T: Ven puruva sinnaan	LC
	<i>Hypsipetes leucocephalus</i> (Gmelin, 1789)	E: Asian Black Bulbul S: Kalu piri-kondaya T: Karung sinnaan	LC
Rallidae	<i>Amaurornis phoenicurus</i> (Pennant, 1769)	E: White-breasted Waterhen S: Layasudu korawakka T: Ven maarbu kaanaang koli	VU
	<i>Porphyrio porphyrio</i> (Linnaeus, 1758)	E: Purple Swampphen S: Dam madi-kithala T: Neela thodai koli	LC
Ramphastidae	<i>Megalaima zeylanica</i> (Gmelin, 1788)	E: Brown-headed Barbet S: Polos Kottoruwa T: Paluppu thalai kukkuruvan	LC
	<i>Megalaima rubricapillus</i> (Gmelin, 1788)	E: Crimson-fronted Barbet S: Rathmunath Kottoruwa Mal Kottoruwa T: Sennettri kukkuravan	LC/En
	<i>Megalaima haemacephala</i> (Müller, 1776)	E: Coppersmith Barbet S: Rathlaya Kottoruwa, Mal	LC

		Kottoruwa T: Senmaarbu Kukkuruvan	
Recurvirostridae	<i>Himantopus himantopus</i> (Linnaeus, 1758)	E: Black-Winged Stilt S: Kalupiya ipalpava Kalapu-kirala T: Nedungkaal ullaan	LC
Rhipiduridae	<i>Rhipidura aureola</i> Lesson, 1830	E: White-browed Fantail S: Bamasudu pavanpenda T: Venpuruva visirivaal Eepidippaan	LC
Scolopacidae	<i>Tringa glareola</i> (Linnaeus, 1758) M	E: Wood Sandpiper S: Wana Silibilla	
	<i>Actitis hypoleucos</i> (Linnaeus, 1758) M	E: Common Sandpiper S: Podu Siliththa	
Sittidae	<i>Sitta frontalis</i> Swainson, 1820	E: Velvet Fronted Nuthatch S: Villuda yatikuriththa T: Velvetnettri maram irangi	LC
Sturnidae	<i>Acridotheres tristis</i> (Linnaeus, 1766)	E: Common Myna S: Myna T: Naakanavai	LC
Sturnidae	<i>Gracula religiosa</i> Linnaeus, 1758	E: Hill Myna S: Salalihiniya T: Malai naakanavai	LC
Sylviidae	<i>Orthotomus sutorius</i> (Pennant, 1769)	E: Common Tailorbird S: Battichcha T: Thaiyat kaara kathir kuruvi	LC
Threskiornithidae	<i>Threskiornis melanocephalus</i> (Latham, 1790)	E: Black-headed Ibis S: Hisakalu dekettha T: Vellai arivaal mookan	LC
	<i>Platalea leucorodia</i> Linnaeus, 1758	E: Eurasian Spoonbill S: Hendialava T: Karandi vaayan	LC
Timaliidae	<i>Pellorneum fuscicapillus</i> (Blyth, 1849)	E: Sri Lanka Brown Capped Babbler S: Sri Lanka Boraga piridemalichcha T: Ilankai kabilakulla velaikkara kuruvi	LC/En
	<i>Dumetia hyperythra</i> (Franklin, 1831)	E: Tawny-bellied Babbler S: Kusakaha landudemalichcha T: Karunj chirappu vayittru silamban	LC
	<i>Rhopocichla atriceps</i> (Jerdon, 1839)	E: Dark Fronted Babbler S: Vathaduru pandurudemalichcha	LC

		Parandelkurulla T: Karunthalai chilamban	
	<i>Chrysomma sinense</i> (Gmelin, 1789)	E: Yellow Eyed Babbler S: Nethkaha thanademalichcha T: Manjal kan silamban	LC
	<i>Turdoides affinis</i> (Jerdon, 1845)	E: Yellow Billed Babbler S: Demalichcha T: Manjal alahu silamban	LC
Trogonidae	<i>Harpactes fasciatus</i> (Pennant, 1769)	E: Malabar Trogon S: Lohavannichcha, Ginikurulla T: Malabar theekakai	NT
Turnicidae	<i>Turnix suscitator</i> (Gmelin, 1789)	E: Barred Buttonquail S: Punchi bola watuyuruwa T: Kadai	LC
Zosteropidae	<i>Zosterops ceylonensis</i> Holdsworth, 1872	E: Sri Lanka White Eye S: Sri Lanka sithasiya, Mal kurulla T: Ilankai ven vilik kuruvi	NT/En

Annexure 18: Amphibians recorded from Kahalle-Pallekele Sanctuary

Family	Scientific name	Common Name	RL category
Bufonidae	<i>Duttaphrynus melanostictus</i> Schneider, 1799	E: Common toad S: Gey gamba	LC
Dicroglossidae	<i>Euphlyctis cyanophlyctis</i> (Schneider, 1799)	E: Indian skipper frog S: Uthpathana madiya	LC
	<i>Euphlyctis hexadactylus</i> (Lesson, 1834)	E: Indian green frog S: Sayangili pala Madiya	LC
	<i>Hoplobatrachus crassus</i> (Jerdon, 1853)	E: Jerdon's bullfrog S: Jurdonge diya madiya	LC
	<i>Fejervarya cf. syhadrensis</i> (Annandale, 1919)	E: Common paddy field frog S: Vel madiya	LC
Microhylidae	<i>Microhyla mihinthalai</i> Wijayathilake et al, 2016	E: Red narrow mouthed frog S: Rathu muva patu madiya	LC/En
Rhacophoridae	<i>Polypedates maculatus</i> (Gray, 1834)	E: Spotted tree frog S: Pulli gas madiya	LC
Ranidae	<i>Hydrophylax gracilis</i> Gravenhorst, 1829 Gravenhorst, 1829	E: Sri Lanka wood frog S: Lanka diya madiya	LC/En

Annexure 19: Reptiles recorded from Kahalle-Pallekele Sanctuary

Family	Scientific name	Common Name	RL category
Agamidae	<i>Calotes versicolor</i> (Daudin, 1802)	E: Common garden lizard S: Gara katussa	LC
	<i>Calotes ceylonensis</i> (Müller, 1887)	E: Painted lip lizard S: Tholavisituru katussa	NT
	<i>Calotes versicolor</i> (Daudin, 1802)	E: Common garden lizard S: Gara katussa	LC
	<i>Otocryptis nigristigma</i> Bahir and Pethiyagoda 2005	E: Black spotted kangaroo lizard S: Wiyali Pinum katussa katussa	LC
Colubridae	<i>Ptyas mucosa</i> (Linnaeus, 1758)	E: Rat snake S: Gerandiya	LC
	<i>Dendrelaphis bifrenalis</i> (Boulenger, 1890)	E: Boulenger's bronze back S: Pandura haldanda	NT
	<i>Chrysopelea taprobanica</i> Smith, 1943	E: Striped flying snake S: Dangara danda	LC
Gekkonidae	<i>Cnemaspis alwisi</i> Wickramasinghe & Munundradasa, 2007	E: Alwis's day gecko; S: Alwisge divasarihuna	NT/En
Natricidae	<i>Amphiesma stolatum</i> (Linnaeus, 1758)	E: Buff striped keelback S: Aharukuka	LC
Scincidae	<i>Eutropis carinata</i> (Schneider, 1801)	E: Common skink S: Sulaba hikanala	LC
Testudinidae	<i>Geochelone elegans</i> (Schoepff, 1795)	E: Indian star tortoise S: Mevara ibba/Taraka ibba T: Katu Amai	NT
Trionychidae	<i>Lissemys ceylonensis</i> (Gray, 1856)	E: Flapshell turtle S: Kiri ibba T: Pal Amai	LC
Varanidae	<i>Varanus salvator</i> (Laurenti, 1768)	E: Water monitor S: Kabaragoya	LC
	<i>Varanus bengalensis</i> (Daudin, 1802)	E: Land monitor S: Talagoya	LC

Annexure 20: Fish species recorded from Kahalle-Pallekele Sanctuary

Family	Scientific name	Common Name	RL
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			category
Anabantidae	<i>Anabas testudineus</i> (Bloch,1795)	E: Climbing Perch S:Kaavaiya/Pol kaavaiya	LC
Aplocheilidae	<i>Aplocheilus parvus</i> (Raj,1919)	E: Dwarf Panchax S:Kalapu handaya/Uda handaya	LC
Bagridae	<i>Mystus vittatus</i> (Bloch,1794) <i>Mystus nanus</i>	E: Striped Dwarf Catfish S: Iri ankutta, Hiri ankutta	LC
Belontiidae	<i>Belontia signata</i> (Gunther 1861)	E: Sri Lanka Combtail S: Thalkossa/Pulutta, Kola moda	NT
	<i>Pseudosphromenus cupanus</i> (Cuvier, 1831)	E: Spike Tailed Paradise Fish S: Pulutta/Thalkossa/Thal kaday	LC
Channidae	<i>Channa striata</i> (Bloch,1793)	E: Murrel S: Loola/Halpath maha	LC
Cobitidae	<i>Lepidocephalichthys thermalis</i> (Valenciennes, 1846)	E: Common Spiny Loach S: Ahirava/Wairan ahirava	LC
Cyprinidae	<i>Devario malabaricus</i> (Jerdon,1849)	E: Giant Danio S: Rath kailaya/Damkola saalaya	LC
	<i>Garra ceylonensis</i> Bleeker,1863	E: Sri Lanka Stone Sucker S: Gal paanduruva/Gal Paandiya	VU
	<i>Labeo dussumieri</i> (Valenciennes,1842)	E: Common Labeo S:Hiri kanaya/Gan kanaya	LC
	<i>Puntius vittatus</i> (Day,1865)	E: Silver Barb S: Bandi thiththaya/Podi pethiya/Ipili kaday	LC
	<i>Rasbora dandia</i> (Valenciennes, in Cuvier & Valenciennes, 1844)	E: Broad line Strip Rasbora; S: Dandiya/Kudamassa	LC
Heteropneustidae	<i>Heteropneustes fossilis</i> (Bloch,1797)	E: Stinging Catfish S: Hunga/Kaha hunga, Le hunga	LC
Mastacembelidae	<i>Mastacembelus armatus</i> (Lacepede, 1803)	E: Marbled Spiny Eel S:Gan theliya/Oya theliya	LC
Siluridae	<i>Ompok ceylonensis</i> (Bloch,1794)	E: Butter Catfish S: Walapoththa/Penavalaya/ Kokassa	LC
	<i>Wallago attu</i> (Bloch & Schneider, 1801)	E: Shark Catfish S: Walaya/Maha Walaya	EN

Annexure 21: Invertebrate species recorded from Kahalle-Pallekele Sanctuary

Family	Scientific name	Common Name	RL category
Hesperiidae	<i>Potanthus pallida</i> Evans, 1932	E: Indian Dart S: Indu-sara	DD
Lycaenidae	<i>Chilades pandava</i> Horsfield, 1829	E: Plains Cupid S: Meewana-sara	LC
	<i>Rathinda amor</i> Fabricius, 1775	E: Monkey-puzzle S: Rathinda	LC
Nymphalidae	<i>Ideopsis similis</i> Linnaeus, 1764	E: Blue Glassy Tiger S: Maha Nil-kotithiya	VU
	<i>Tirumala limniace</i> Cramer, 1775	E: Blue Tiger S: Neela Gomara	LC
	<i>Danaus genutia</i> Cramer, 1779	E: Common Tiger S: Agni Gomara	LC
	<i>Danaus chrysippus</i> Linnaeus, 1758	E: Plain Tiger S: Pahan Gomara	LC
	<i>Euploea core</i> Cramer, 1779	E: Common Indian Crow S: Indu Kakaya	LC
	<i>Mycalesis patnia</i> Moore, 1857	E: Gladeye Bushbrown S: Min-neth panduru (Guruwa)	LC
	<i>Lethe rohria</i> Fabricius, 1787	E: Common Treebrown S: Podu Gas-dumburuwa	EN
	<i>Ypthima ceylonica</i> Hewitson, 1864	E: White Four-ring S: Sithiri Siwwa	LC
	<i>Euthalia aconthea</i> Cramer, 1777	E: Baron S: Sitano	LC
	<i>Neptis jumbah</i> Moore, 1857	E: Chestnut-streaked Sailor S: Wairan Selaruwa	LC
	<i>Neptis hylas</i> Linnaeus, 1758	E: Common Sailor S: Selaruwa	LC
	<i>Kallima philarchus</i> Westwood, 1848	E: Sri Lanka Blue Oakleaf S: Sri Lanka Nil Kela kolaya	EN
	<i>Junonia lemonias</i> Linnaeus, 1758	E: Lemon Pansy S: Pangiri Pansaya	LC
	<i>Junonia iphita</i> Cramer, 1779	E: Chocolate Soldier S: Miyuru-Hewa	LC
	<i>Kaniska canace</i> Linnaeus, 1763	E: Blue Admiral S: Nil Seneviya	LC
	<i>Phalanta phalantha</i> Drury, 1773	E: Leopard S: Maha Diwi-Pulliya	LC
	<i>Ariadne ariadne</i> Linnaeus, 1763	E: Angled Castor S: Naw-Risiya	LC
<i>Acraea violae</i> Fabricius, 1807	E: Tawny Coster S: Viyola	LC	

	<i>Caleta decidia</i> Hewitson, 1876	E: Angled Pierrot S: Mulu Konangiya	LC
	<i>Chilades lajus</i> Stoll, 1780	E: Lime Blue S: Dehi-neelaya	LC
Papilionidae	<i>Pachliopta hector</i> Linnaeus, 1758	E: Crimson Rose S: Arunu Sewwandiya	LC
	<i>Papilio polymnestor</i> Cramer, 1775	E: Blue Mormon S: Neela Parindaya	LC
	<i>Papilio crino</i> Fabricius, 1792	E: Banded Peacock S: Mayurabada	VU
	<i>Papilio polytes</i> Linnaeus, 1758	E: Common Mormon S: Wesgaththi	LC
	<i>Papilio demoleus</i> Linnaeus, 1758	E: Lime Butterfly S: Dehirisiya	LC
	<i>Graphium nomius</i> Esper, 1784	E: Spot Swordtail S: Thith Kaga-waligaya	VU
	<i>Graphium antiphates</i> Cramer, 1775	E: Fivebar Swordtail S: Pancha iri kaga waligaya	EN
	<i>Graphium sarpedon</i> Linnaeus, 1758	E: Bluebottle S: Neelabomi	LC
	<i>Graphium doson</i> Felder, 1864	E: Common Jay S: Pralapani	LC
	<i>Graphium agamemnon</i> Linnaeus, 1758	E: Tailed Jay S: Thudanga Pralapani	LC
	<i>Hasora taminatus</i> Hübner, 1818	E: White Banded Awl S: Sudu iri-leesa	NT
Pieridae	<i>Leptosia nina</i> Fabricius, 1793	E: Psyche S: Manahari	LC
	<i>Delias eucharis</i> Drury, 1773	E: Jezebel S: Pilila Risiya	LC
	<i>Cepora nerissa</i> Fabricius, 1775	E: Common Gull S: Lihini Samanalaya	CR
	<i>Appias albina</i> Boisduval, 1836	E: Common Albatross S: Dingupath Samanalaya	LC
	<i>Catopsilia pomona</i> Fabricius, 1775	E: Lemon Emigrant S: Dehi seriya	LC
	<i>Catopsilia pomona</i> Fabricius, 1775	E: Lemon Emigrant S: Dehi seriya	LC
	<i>Catopsilia pyranthe</i> Linnaeus, 1758	E: Mottled Emigrant S: Lapa seriya	LC
	<i>Eurema blanda</i> Boisduval, 1836	E: Three-spot Grass Yellow S: Thun pulli Thruna Pithaya	LC
	<i>Eurema hecabe</i> Linnaeus, 1764	E: Common Grass Yellow S: Thruna Pithaya	LC
	<i>Pareronia ceylanica</i> Felder, 1865	E: Dark Wanderer S: Anduru seriya	LC

Annexure 22: Plant species recorded from Kahalle-Pallekele Sanctuary

Family	Scientific name	Common Name	RL category
Acanthaceae	<i>Pseuderanthemum angustifolium</i> Ridley		CR
	<i>Justicia procumbens</i> L.	S: Mayani	LC
	<i>Rhinacanthus polonnaruwensis</i> Cramer		LC
	<i>Rungia repens</i> (L.) Nees	S: Sulu-Nayi	LC
	<i>Hydnocarpus venenata</i> Gaertn.	S: Makulu T: Makul	LC
Amaranthaceae	<i>Aerva lanata</i> (L.) Juss. ex Schult.	S: Pol-Kudu-Pala/Pol- Pala	LC
	<i>Alternanthera sessilis</i> (L.) DC.	S: Mukunu-wenna Mugunuwenna T: Ponankani	LC
Anacardiaceae	<i>Mangifera zeylanica</i> (Blume) Hook.f.	S: Et-Amba, Wal- Amba T: Kaddu-Ma	LC
	<i>Spondias pinnata</i> (L.f.) Kurz	E: Hog Plum S: Wal-Amberella T: Ampallai	VU
Annonaceae	<i>Uvaria cordata</i> (Dunal) Alston		VU
	<i>Miliusa indica</i> Leschen. ex A. DC.	S: Kekili-Messa	LC
	<i>Polyalthia korinti</i> (Dunal) Thw.	S: Mi-Wenna, UI-Kenda T: Uluvintai	LC
	<i>Uvaria macropoda</i> Hook.f. & Thoms.	S: Attu-Muddah	NT
	<i>Uvaria sphenocarpa</i> Hook. f. & Thoms.		LC
	<i>Xylopiia nigricans</i> Hook.f. & Thoms.	S: Heen-Kenda T: See-Vindai	NT
	<i>Xylopiia parvifolia</i> (Wight) Hook. f. & Thoms.	S: Atu-Ketiya, Netawu T: Chiddavintai	LC
	Apocynaceae	<i>Carissa spinarum</i> L.	S: Heen-Karamba T: Chirukila, Chirukula, Kilatti
<i>Gymnema lactiferum</i> (L.) R. Br. ex Schult.		T: Kurinnan	LC
<i>Hemidesmus indicus</i> (L.) R. Br.		S: Iramusu/Heen-Iramusu T: Nannari	LC

	<i>Ichnocarpus frutescens</i> (L.) R. Br.	S: Gerandi Dul/Gerandi Wel/Gopi/Priyawarna/Kiri-Wel	LC
Araceae	<i>Lasia spinosa</i> (L.) Thw.	S: Angili Kohila/Kohila/Maha-Kohila	LC
	<i>Pothos scandens</i> L.	S: Pota-Wel	LC
Asparagaceae	<i>Asparagus racemosus</i> Willd.	S: Hathawariya T: Chattavari	LC
	<i>Sansevieria zeylanica</i> (L.) Willd.	E: Bow-String Hemp S: Niyanda T: Maral	NT
Asteraceae	<i>Vicoa indica</i> (L.) DC.	S: Ran-Hiriya	LC
	<i>Xanthium indicum</i> Koenig	S: Wal-Rambutang/Uru-Kossa	LC
Balsaminaceae	<i>Impatiens grandis</i> Heyne ex Wall.		EN
Bignoniaceae	<i>Stereospermum suaveolens</i> DC.	S: Ela-Palol/Palo	LC
	<i>Stereospermum colais</i> (Dillwyn) Mabb.	S: Dunu-madala/Lunu Madala T: Padri	LC
	<i>Stereospermum suaveolens</i> DC.	S: Ela-Palol/Palol	DD
Blechnaceae	<i>Stenochlaena palustris</i> (Burm.) Beddo.		LC
Boraginaceae	<i>Carmona retusa</i> (Vahl) Masamune	S: Heen-Thambala T: pakkuvetti	LC
Burseraceae	<i>Commiphora caudata</i> (Wight & Arn.) Engl.	T: Kilivai	LC
Calophyllaceae	<i>Calophyllum calaba</i> L.	S: Guru-Keena/Heen Keena T: Chirupunnai	LC
	<i>Mesua ferrea</i> L.	S: Na T: Naka	LC
Capparaceae	<i>Capparis brevispina</i> DC.	S: Wal-Dehi	NT
	<i>Capparis rotundifolia</i> Rottler	S: Kalu-Illan-Gedi T: Punai-Virandi/Velungiriya	LC
	<i>Capparis sepiaria</i> L.	S: Rila-Katu T: Karunchurai	LC
Celastraceae	<i>Cassine balae</i> Kosterm.	S: Nareloo/Neraloo T: Perun/Piyaree	LC
	<i>Maytenus emarginata</i> (Willd.) Ding Hou		LC

	<i>Pleurostyliia opposita</i> (Wall.) Alston	S: Panakka/Piyari T:Chiru/Piyari	LC
	<i>Reissantia indica</i> (Willd.) Halle		LC
	<i>Salacia oblonga</i> Wall. ex Wight & Arn.	S: Himbutu/Gal-Himbutu	EN
	<i>Salacia reticulata</i> Wight	S: Himbutu/Himbutu-Wel/ Kotala-Himbutu	EN
Clusiaceae	<i>Garcinia spicata</i> (Wight & Arn.) Hook.f.	S: Ela-Gokatu/Gonapana T: Kokotta	NT
Colchicaceae	<i>Gloriosa superba</i> L.	S: Niyangala T: Kartikai Kilanku/Ventonti	LC
Combretaceae	<i>Terminalia arjuna</i> (Roxb.) Wight & Arn.	S: Kumbulu/Kumbuk T: Marutu	LC
Commelinaceae	<i>Commelina diffusa</i> Burm.f.	S: Gira Pala	LC
Connaraceae	<i>Connarus monocarpus</i> L.	S: Radaliya T: Chettupulukodi	LC
	<i>Rourea minor</i> (Gaertn.) Alston	S: Kirindi-Wel/Goda Kirindi	LC
Convolvulaceae	<i>Evolvulus alsinoides</i> (L.) L.	S: Visnu-Kranti T: Vichnu Kiranti	LC
Cyperaceae	<i>Cyperus rotundus</i> L.	S: Kalanduru T: Korai	LC
	<i>Schoenoplectus articulatus</i> (L.) Palla	S: Maha Geta-Pan	LC
	<i>Scleria lithosperma</i> (L.) Sw.		LC
Dilleniaceae	<i>Acrotrema lanceolatum</i> Hook.		EN
Dioscoreacea	<i>Trichopus zeylanicus</i> Gaertn.	S: Bim-Pol	VU
Ebenaceae	<i>Diospyros ferea</i> Koenig	E: Ebony S: Kaluwara T: Karunkali	EN
	<i>Diospyros malabarica</i> (Desr.) Kostel.	E : Gaub Persimmon S: Timbiri T :Panichchai	LC
	<i>Diospyros ovalifolia</i> Wight	S: Habara, Kunumella T: Vedukkanari Vedukunari	LC
Elaeocarpaceae	<i>Elaeocarpus serratus</i> L.	E: Wild Olive S: Weralu	LC
Erythroxylaceae	<i>Erythroxylum zeylanicum</i> O. Schulz		LC
Euphorbiaceae	<i>Croton aromaticus</i> L	S: Wel-Keppetiya T: Teppaddi	LC

	<i>Croton laccifer</i> L.	S: Gas- Keppetiya, Keppetiya T: Teppaddi	LC
	<i>Croton officinalis</i> (Klotzsch) Alston		LC
	<i>Dimorphocalyx glabellus</i> Thw.	S: Weli-Wenna; T: Tentuikki/Tentukki	LC
	<i>Euphorbia antiquorum</i> L.	S: Daluk T: Chatura Kalli	LC
	<i>Euphorbia trigona</i> Haw.		VU
	<i>Macaranga peltata</i> (Roxb.) Muell.Arg	S: Kenda/Pat-kenda T: Vattakanni	LC
	<i>Mallotus eriocarpus</i> (Thw.) Muell.Arg	S: Bulu-Petta/Vel-Keppetiya T: Maratin	LC
	<i>Mallotus philippensis</i> (Lam.) Muell. Arg.	S: Hamparila/Hamparilla T: Kapila	LC
	<i>Mallotus resinusus</i> (Blanco) Merr.	S: Ma-Endaru	LC
	<i>Mallotus rhamnifolius</i> (Willd.) Muell. Arg.	S: Molabe T: Marai-Tinni, Maraitium	LC
	<i>Sapium insigne</i> (Royle) Benth.	S: Kaduru/Tel-Kaduru	LC
	<i>Suregada lanceolata</i> (Willd.) Kuntze	<i>Suregada lanceolata</i> (Willd.) Kuntze	LC
Fabaceae	<i>Abrus precatorius</i> L.	E: Crab's Eyes/Indian Liquorice S: Olinda/OlindaWel T: Kundu-Mani/KuntuMani	LC
	<i>Acacia chundra</i> Willd.	S: Rat-Kihiriya E: Redcutch T: karangali/kodalimurukai	LC
	<i>Atylosia scarabaeoides</i> (L.) Benth.	S: Wal-Kollu/Wa- Undu Wal-Undu-Wel	LC
	<i>Bauhinia racemosa</i> Lam.	E: Atti S: Maila/Mayila	LC
	<i>Cassia auriculata</i> L.	S: Ranawara E: Matara Tea T: Avarai	LC
	<i>Cassia hirsuta</i> L.		LC
	<i>Cassia tora</i> L	S: Peti-Tora/Tora	LC
	<i>Dalbergia pseudo-sissoo</i> Miq.	E: Hornet Creeper S: Bambara-Wel	LC

	<i>Derris parviflora</i> Benth	S: Kala-Vel/Sudu-Kala-Wel	LC
	<i>Derris scandens</i> (Roxb.) Benth.	S: Ala-Vel/Bo-Kala-Wel/ Kala-Wel T: Kalungu Kodi/Telil/Welan- Tekal	LC
	<i>Desmodium triflorum</i> (L.) DC.	S: Heen-Undupiyali	LC
	<i>Dialium ovoideum</i> Thw.	E: Velvel Tamarind S: GalSiyambala T: Kaddupuli	VU
	<i>Saraca asoca</i> (Roxb.) de Wild.	S: Ashoka/Asoka/Diya- Rathambala/Diya-Ratmal T: Asogam	VU
	<i>Tephrosia purpurea</i> (L.) Pers.	S: Pila/Gam-Pila T: Kavilai/Kawati/Kolinchi	LC
	<i>Tephrosia purpurea</i> (L.) Pers.	S: Pila/Gam-Pila T: Kavilai Kawati/Kolinchi	LC
	<i>Teramnus labialis</i> (L. f.) Spreng.	S: Wal-Kollu	LC
Gentianaceae	<i>Fagraea ceilanica</i> Thunb.	S: Etamburu	NT
Hypoxidaceae	<i>Curculigo orchioides</i> Gaertn.	S: Bim-Thal/Heen-Bin-Tal T: Wolappanai	LC
Lamiaceae	<i>Gmelina asiatica</i> L.	E: Asiatic Beechberry S: Demata/Gatta Demmata T: Kumil/Kainadi/Gumadi/ NelaKumi/Nilacumal/ NilKumi	LC
	<i>Premna tomentosa</i> Willd.	S: Boo-Seru/Noo-Sairou/ Boo Sera/Boo-Sairoo-Gas/ Bu-Seru T: Koluk-Kutti/Loluto-Kutti/ Kollay-Cottaynellay/Kolkutti	LC
	<i>Vitex altissima</i> L.f.	S: Kaha-Milla/Mililla-Gas/ Millla/Miyan- Milla/Sapu- Milla T:Kaaddmanakku/ Kadamanakku/Kadamanana kku/Maila/Mayila	NT
	<i>Vitex leucoxydon</i> L.f.	S: Nabudda/Nabada/ Nebedda T: Kaddu-Nochchi/Kardu- Nochi/Nir/Kardu-Noch	LC
Lauraceae	<i>Alseodaphne semecarpifolia</i> Nees	S: Wewaranai	VU

		T: Yavaranai/Ranai	
	<i>Neolitsea cassia</i> (L.) Kosterm.	E: Wild Cinnamon S: Dawul-Kurundu	LC
Lecythidaceae	<i>Barringtonia acutangula</i> (L.) Gaertn.	S: Ela Midella/Era Midella T: Adampu	LC
Linaceae	<i>Hugonia mystax</i> L	S: Bu-Getiya/Maha-Getiya/ Watti-Weti T: Motirakanni	LC
Loganiaceae	<i>Strychnos minor</i> Dennst.	S: Kaduru/Kaduru Ketiya- Wel T: Kachchalkodi	LC
	<i>Strychnos nux-vomica</i> L.	E: Nux-Vomica S: Godakaduru T: Eddi/Kanchurai	VU
	<i>Strychnos potatorum</i> L. f.	S: Ingini T: Tetta	VU
	<i>Strychnos trichocalyx</i> A.W. Hill	S: Thelatiya/Gona-Karaba/ Kaduru	VU
Malpighiaceae	<i>Hiptage benghalensis</i> (L.) Kurz	S: Puwak-Gediya-We	LC
Malvaceae	<i>Abutilon hirtum</i> (Lam.) Sweet	T: Vaddattutti	LC
	<i>Abutilon indicum</i> (L.) Sweet	S: Wal Anoda/Panagedi/ Anoda T: Peruntulli/Peruntutti/ Vaddattutti	LC
	<i>Berrya cordifolia</i> (Willd.) Burret	E: Trincomalee Wood S: Hal-Milla T: Chavandalai	LC
	<i>Corchorus olitorius</i> L.	E: Jute	VU
	<i>Diplodiscus verrucosus</i> (Thw.) Kosterm	S: Dik Andhe/Dik Wenna T: Vid Pani/Yakada Maram	LC
	<i>Grewia carpinifolia</i> Juss.		LC
	<i>Grewia damine</i> Gaertn.	S: Daminiya T: Cadachi/Chadachchi	LC
	<i>Hibiscus eriocarpus</i> DC.	S: Kapu-Kinissa T: paritti	LC
	<i>Hibiscus furcatus</i> Roxb.	S: Na Pirittha	LC
	<i>Melochia corchorifolia</i> L.	S: Gal Kura/Maha-Galkura	LC
	<i>Pavonia odorata</i> Willd.		LC

	<i>Pterospermum suberifolium</i> (L.) Willd.	S: Welang	LC
	<i>Sida cordata</i> (Burm. f.) Borssum Waalkes	S: Bevila T: Palampadu/Palampasi	LC
	<i>Sida cordifolia</i> L.	S: Wal-Bevila/Heen Anoda T: Cheevakanpudu	LC
	<i>Sida rhombifolia</i> L.	S: Kotikan-Bevila/Bebila T: Chittamaddi	LC
	<i>Sterculia foetida</i> L.	S: Telambu/Telembu T: Kadutenga/Kaduteynga/ Pinari	LC
	<i>Wissadula periplocifolia</i> (L.) Presl ex Thw	S: Kiri-kaju	NT
Marsileaceae	<i>Marsilea minuta</i> L.	S: Hathara pethiya	LC
Melastomataceae	<i>Memecylon capitellatum</i> L.	S: Dedi-Kaha/Dodan-Kaha/Wel-Kaha/Weli-Kaha T: Katti-Kaya/Pavaddai-Kaya/Venkali-Kaya	LC
	<i>Memecylon petiolatum</i> Trimen ex Alston		NT
	<i>Memecylon sylvaticum</i> Thw.		NT
	<i>Memecylon umbellatum</i> Burm.f.	E: Blue Mist S: KoraKaha T: Kaya/KurreKaya/ Pandikaya	LC
	<i>Osbeckia aspera</i> (L.) Blume	S: Bowitiya	NT
Meliaceae	<i>Chukrasia tabularis</i> A.Juss.	E: Chittagong Wood S: Hiri-Kita/Hulan-Hik T: Aglai/Kaloti	NT
	<i>Walsura trifoliolata</i> (A.Juss.) Harms	S: Kirikon/Mal-Petta T: Chadavakku/Chokala Kanjimaran/Malaivirali	LC
Menispermaceae	<i>Cissampelos pareira</i> L.	S: Diya-Mitta T: Appatta	LC
	<i>Tiliacora acuminata</i> (Lam.) Miers	<i>Tiliacora acuminata</i> (Lam.) Miers	VU
Moraceae	<i>Ficus amplissima</i> Smith	S: Ela-Nuga T: Kalatti	LC
	<i>Ficus callosa</i> Willd.	S: Wal-Gona	LC
	<i>Ficus hispida</i> L.f.	S: Kota-Dimbula	LC

	<i>Ficus microcarpa</i> L.f.		LC
	<i>Plecospermum spinosum</i> Trecul	S: Katu-Timbol	VU
	<i>Streblus taxoides</i> (Heyne) Kurz	S: Gon-Gotu E: Fig-Lime	LC
Myristicaceae	<i>Horsfieldia irya</i> (Gaertn.) Warb.	S: Iriya	LC
	<i>Myristica ceylanica</i> A. DC.	S: Maloboda/Malabodde	VU
Myrtaceae	<i>Eugenia willdenowii</i> DC.		LC
	<i>Syzygium cumini</i> Skeels	S: Madan/Maha Dan T: Naval/Perunaval	LC
Ochnaceae	<i>Ochna lanceolata</i> Spreng.	S: Gal Kena/Bo-Kera/Ge-Karal/Mal-ker T: Katharai/Katkarai	LC
	<i>Ochna obtusata</i> DC.	S: Mal-ker T: Chilanti/Sellindi	LC
Olacaceae	<i>Olax scandens</i> Roxb.	T: Kadalranchi	LC
	<i>Chionanthus albidiflora</i> Thw.	S: Embul-Korakaha GalMetta/Taccada-Gas	VU
	<i>Chionanthus zeylanica</i> L.	S: Dambu/ Geratiya/Geriata T: Kattimuruchan	LC
Onagraceae	<i>Ludwigia perennis</i> L.	S: Piduruwella	LC
Orchidaceae	<i>Piper sylvestre</i> Lam.	S: Mala Miris/Mala-Miris-Wel/Wal-Gam-Miris-Wel	LC
	<i>Vanda tessellata</i> (Roxb.) Lodd. ex G. Don		VU
Passifloraceae	<i>Adenia hondala</i> (Gaertn.) de Wilde	S: Hondala	LC
Phyllanthaceae	<i>Actephila excelsa</i> (Dalz.) Muell. Arg.	S: Et-Pitawakka	LC
	<i>Antidesma alexiteria</i> L.	S: Heen-Embiliya	LC
	<i>Blachia umbellata</i> (Willd.) Baill.	S: Goda-Ratmale/Kosatta	LC
	<i>Bridelia retusa</i> (L.) A. Juss.	S: Ketakala T: Mul-Venkai	LC
	<i>Phyllanthus polyphyllus</i> Willd.		LC

	<i>Flueggea leucopyrus</i> Willd.	S: Heen-Katu-Pila T: Mudpulanthi	LC
Poaceae	<i>Aristida setacea</i> Retz.	S: Et-Tuttiri	LC
	<i>Cyrtococcum trigonum</i> (Retz.) A.Camus		LC
	<i>Cymbopogon nardus</i> (L.) Rendle	E: New Citronella Grass S: Heen-Pangiri/Lena Batu/Lena- Batu- Pengiri/Pegiri/Mana	LC
	<i>Cynodon dactylon</i> (L.) Pers	E: Bermuda Grass/Doob Grass S: Ruha T: ArugamPillu/Arugam-Pul	LC
	<i>Cyrtococcum trigonum</i> (Retz.) A.Camus		LC
	<i>Dichaetaria wightii</i> Nees ex Stude		VU
	<i>Eragrostis japonica</i> (Thumb.) Trin.		LC
	<i>Eragrostis tenuifolia</i> (A.Rich) Hochst. Ex Steud.		VU
	<i>Eriochloa procera</i> (Retz.) C.E. Hubb.		LC
	<i>Garnotia scoparia</i> Thw.		NT
	<i>Imperata cylindrica</i> (L.) Rausch.	S: Illuk	LC
	<i>Isachne globosa</i> (Thunb.) Kuntze	S: Bata-Della	
	<i>Iseilema laxum</i> Hack.		LC
	<i>Panicum sparsicomum</i> Nees ex Steud.		LC
	<i>Paspalidium flavidum</i> (Retz.) A.Camus	E: Arisi-Pul S: Ha-Thana	LC
	<i>Sacciolepis curvata</i> (L.) Chase		LC
Pteridaceae	<i>Adiantum caudatum</i> L.	S: Thuda-vediya	LC
Putranjivaceae	<i>Drypetes sepiaria</i> (Wight & Arn.) Pax & Hoffm.		LC
	<i>Putranjiva zeylanica</i> (Thw.) Muell. Arg.	S: Pelan	LC
Rhamnaceae	<i>Scutia myrtina</i> (Burm.f.) Kurz	T: Tudari/Tuvadi	LC

	<i>Ventilago madraspatana</i> Gaertn. var. <i>madraspatana</i>	S: Yakada-Wel T: Vempadam	LC
	<i>Ziziphus oenoplia</i> (L.) Miller	S: Heen Eraminiya T: Churai/Perilantai	LC
Rhizophoraceae	<i>Cassipourea ceylanica</i> (Gardner) Alston	S: Pana/Kos Daththa/Gal Guliya T: Kannu	LC
Rubiaceae	<i>Haldina cordifolia</i> (Roxb.) Ridsd.	S: Kolon T: manchal Kadampa, Raja Murunkai	LC
	<i>Benkara malabarica</i> (Lam.) Tirv.	S: Pudan	LC
	<i>Canthium coromandelicum</i> (Burm. f.) Alston	S: Kara T: Karai	LC
	<i>Canthium puberulum</i> Thw. ex Hook. f.		NT
	<i>Canthium rheedii</i> DC.		NT
	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	S: Kukuruman T: Karai	LC
	<i>Discospermum sphaerocarpum</i> Dalz. Ex Hook. f.	T: Vella	LC
	<i>Gardenia fosbergii</i> Tirv.		VU
	<i>Ixora pavetta</i> Andr.	S: Maharatambala T: Kanmuttankirai, Karankutti/Painkuray	LC
	<i>Mitragyna parvifolia</i> var. <i>parvifolia</i> (Roxb.) Korth.	T: Nir-Kadampa/Chelampi	LC
	<i>Mussaenda frondosa</i> L.	S: Mus-Wenna/Wal-But- Sarana/Mussenda	LC
	<i>Psilanthus wightianus</i> (Wight & Arn.) Leroy	T: Kaddumallikai	VU
	<i>Psydrax dicoccos</i> Gaertn.	E: Ceylon Boxwood S: Gal Karanda/Panakarawa/ Panduru T: Vatchikuran/Yerkoli	LC
	<i>Spermacoce hispida</i> L.	S: Hin Geta Kola T: Nattaichchuri/Yar	LC
	<i>Tarena asiatica</i> (L.) Kuntze ex Schumann	S: Tarana T: Karanai	LC
Rutaceae	<i>Acronychia pedunculata</i> (L.) Miq	S: Ankenda	LC

	<i>Chloroxylon swietenia</i> DC	E: Satin Wood S: Buruta T: Moodudad Marum/Muritai	VU
	<i>Clausena dentata</i> (Willd.) Roem.	S: Ganda-Pana/Et Kara/ Bembiya/Weda-Pana	LC
	<i>Clausena indica</i> (Dalz.) Oliver	S: Migon Karapincha T: Pannai/Purankainari	LC
	<i>Glycosmis angustifolia</i> Lindley in Wall. Ex Wight & Arn.	S: Bol-Pana	LC
	<i>Glycosmis mauritiana</i> (Lam.) Tanaka		LC
	<i>Glycosmis pentaphylla</i> (Retz.) A.DC.	S: Dodan-Pana T: Kulapanna	LC
	<i>Limonia acidissima</i> L	E: Elephant-Apple/Wood Apple S: Divul T: Mayaladikkuruntu/Vila Vilatt	LC
	<i>Murraya koenigii</i> (L.) Spreng.	E: Curry Leaf S: Karapinch T: Karivempu	LC
	<i>Murraya paniculata</i> (L.) Jack	E: Orange Jessamine S: Etteriya	LC
	<i>Atalantia monophylla</i> (Roxb.) DC.	S: Dodan Pana	LC
	<i>Pleiospermium alatum</i> (Wight & Arn.) Swingle	S: Tumpat Kurundu/Tunpat Kurundu	LC
	<i>Toddalia asiatica</i> (L.) Lam.	S: Kudu Miris T: Kandai	LC
Salicaceae	<i>Casearia zeylanica</i> (Gaertn.) Thw.	S: Wal-Waraka T: Kakapalai/Kakapelar Kakkaipalai/Tey Pala	LC
Sapindaceae	<i>Cardiospermum halicacabum</i> L.	S: Wel-Penela/ Penela-We	LC
	<i>Dimocarpus longan</i> Lour.	S: Penni-More/Mora/Mora Mora/Rasa-Mora	LC
	<i>Glenniea unijuga</i> (Thw.) Radlk.	S: Wal-Mora T: Kuma	LC
	<i>Lepisanthes tetraphylla</i> (Vahl) Radlk.		LC
	<i>Sapindus emarginata</i> Vahl	E: Soap Nut Tree S: Kaha- Penela/Matambala/Embilla/ Gas-Penela/Penela	LC
Sapindaceae	<i>Schleichera oleosa</i> (Lour.) Oken	E: Ceylon Oak	LC

		S : Kon T: Kula/Puvu	
	Schleichera oleosa (Lour.) Oken	E: Ceylon Oak	LC
		S: Kon T: Kula/Puvu	
Sapotaceae	<i>Manilkara hexandra</i> (Roxb.) Dubard	S: Palu T: Palai	VU
Verbanaceae	<i>Phyla nodiflora</i> (L.) Greene		LC
Violaceae	<i>Rinorea virgata</i> (Thw.) Kuntze		VU
Vitaceae	<i>Cissus heyneana</i> Steud.	S: Wal-Muddarappalam	LC
	<i>Leea indica</i> (Burm.f.) Merr.	S: Burulla/Gurulla; T: Nyckki/Otta-Nali	LC
	<i>Tetrastigma nilagiricum</i> (Miq) Shetty		LC

Annexure 23: List of wetlands

Kala Wewa – Area between FSL and HFL = 780 ha

Hakwatuna oya reservoir- Area between FSL and HFL = 128 ha

Annexure 24: List of sensitive sites

Spring forest at Na-maluwa, Kahalle
Ipulvehera

Annexure 25: List of organizations and participants involved in preparing the strategic management plan

Name of the event	Date and place	Organizations and participants
<p>1st stakeholder consultation</p> <p>Regional level</p> <p>for identification of stakeholders, threats and issues, current status of the protected area, regional administrative structure and links</p>	<p>21 November 2016</p> <p>Hotel Senaragiri</p> <p>Nikawaratiya</p>	<ul style="list-style-type: none"> • Department of Wildlife Conservation • Provisional Irrigation Engineering Department • Divisional Secretariat (Kekirawa ,Polpithigama ,Ahatuwewa, Palagala) • NAQDA • Mahaweli Development Authority • Department of Survey • Forest Department • Sri Lanka Police • Govijana Seva Madayasthanaya
<p>2nd stakeholder consultation</p> <p>Regional level</p> <p>for identification of stakeholders, threats and issues, current status of the protected area, regional administrative structure and links</p>	<p>15 December 2016</p> <p>NAQDA Training Centre Kala Wewa</p>	<ul style="list-style-type: none"> • Kossinne, Rathana Jothi Thera • Department of Wildlife Conservation • Sri Lanka Police • Provisional Irrigation Engineering Department • Central Environmental Authority • NAQDA • Divisional Secretariats (Palagala, Galnawa, Polpithigama, Ahatuwewa) • Department of Civil Security • Govijana Sewa Madasthanaya (Ahatu wewa, Rambe, Moragolla, Madaha pala) • Forest Department Galgamuwa • Department of Archaeology (Anuradhapura, Panduwasnuwara) • UNDP • Mahaweli Authority of Sri Lanka (Meegalawa) • Forest Department

		<ul style="list-style-type: none"> • Department of Irrigation
<p>3rd stakeholder consultation</p> <p>National level</p> <p>for identification of stakeholders, threats and issues, current status of the protected area, regional administrative structure and links</p>	<p>17 January 2017</p> <p>Sri Lanka Foundation Institute Colombo</p>	<ul style="list-style-type: none"> • Department of Wildlife Conservation • UNDP • Department of Irrigation • NAQDA • Mahaweli development Authority • Ministry of Fisheries • Divisional Secretariats (Palagala, Polpithigama) • Central Environmental Authority • Land use planning Director • National Housing Development Authority • Ministry of Mahaweli Development and Environment • Department of Forest • Department of Archeology • Road Development Authority • IUCN • Ministry of Mahaweli Development & Environment • DFAR • Federation of Environment Organization • Mr. Samantha Gunasekara • Dr. Nishanthi Perera
<p>Validation of the first draft</p>	<p>15 March 2017</p> <p>Sri Lanka Foundation Institute Colombo</p>	<ul style="list-style-type: none"> • Department of Wildlife Conservation • UNDP

		<ul style="list-style-type: none">• Department of Irrigation• NAQDA• Mahaweli Authority of Sri Lanka• Ministry of Fisheries• IUCN• Ministry of Mahaweli Development & Environment• DFAR• Federation of Environment Organization• Mr. Samantha Gunasekara• Minister of Parliament (Mr. Chandima Gamage)
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The Gazette of the Democratic Socialist Republic of Sri Lanka

EXTRAORDINARY

අංක 566/5 - 1989 ජූලි 11 දිනේ දසවැනිදාද - 1989.07.11

No.566/5-TUESDAY, JULY 11, 1989

(Published by Authority)

PART I: SECTION (I) - GENERAL

Government Notifications

LD-B 9/73 II.

THE FAUNA AND FLORA PROTECTION ORDINANCE

ORDER made by the Minister of Lands, Irrigation and Mahaweli Development under subsection (2) of section 2 of the Fauna and Flora Protection Ordinance (Chapter 469), as amended by Act, No. 44 of 1964 and Act, No. 1 of 1970.

P. DABARATNA, Minister of Lands, Irrigation and Mahaweli Development.

Colombo, 10th July, 1989.

Order

The area of land, specified in the Schedule hereto, is hereby declared to be a Sanctuary for the purposes of the Fauna and Flora Protection Ordinance (Chapter 469), as amended by the Act, No. 44 of 1964 and Act, No. 1 of 1970.

SCHEDULE

KARALLA-PALLEKELE SANCTUARY

All that area of land situated in Galgamuwa and Polpithigama Assistant Government Agent's Division in Kurunegala District, in the North Western Province and Kalagam Palatha South, Kekirawa and Palagala Assistant Government Agent's Divisions in Anuradhapura District in North Central Province, containing in extent approximately 21,690 Hectares and bounded as follows:—

North: By a line commencing at the intersection of

the roads from Hettiarachchigama to Bongama and Bulanewa at Weliyaya proceeding eastwards along the southern edges of the roads to Siyambalawa upto the point of intersection of the village boundary of Thammanewa (F.V.P. 1991) village and thence along the western and southern boundaries of Pahala Galatabendiwewa, Ihala Calatabendiwewa, Kallanchiya, Uda Negama, Kulandulugama and Galigoda, Kumbukwewa villages upto the point of intersection of the road from Hettiarachchigama to Nanwattigama and thence proceeding south east along the southern boundary of the said road upto the intersection of the road from kumbukwewa to Balaluwewa and thence proceeding eastwards along the said road upto the intersection of the road, from Ambagahawewa to Balaluwewa and thence proceeding south-eastwards along the said road upto the intersection of the main road from medagama

to Kalawewa and thence northwards along the said road upto the point of intersection of the southern village boundary of Puliyanikulama (F.V.P. 849), thence eastwards along the village boundaries of Puliyanikulama, Kanchanankulama, Maminiya, Telambiyagama and Mylagaswewa upto the point of intersection of the main road from Eppawala to Kekirawa and thence proceeding eastwards along the southern boundary of the said road upto the point of intersection of the western village boundary of Malawa village;

East: From the last mentioned point proceeding south and south westwards along the western village boundaries of Malawa, Sembukuliya, Tibbatuwawa, Elagamuwa, Unagollewa, Horapola, Wirandawatawana Unduruwa, Galkiriya-gama thence westwards along the northern village boundaries of P-harniniyagama Havaneli Oya and village boundaries of Kirindiwatta, Medagama, Moragoddayagama, Medagama and Aliyamalagalla villages and thence southwards along the western boundaries of Aliyamalagalla, Ulpothwewa, Uтуруwadunna, Patakara-gama, Weheragama, Kudagama, Marasinghe Halmillewa, Andiyagala, Gambirigawewa, Millagoda, Aramadakotuwa and F. T. P. 14 upto the point of intersection of the right bank of Moragolla Oya, thence proceeding southwards along right bank of Moragolla Oya upto the point of the intersection of the provincial boundary between the North Central Province and Central Province and thence westwards and southwards along the western boundary of the Central Province upto the point of intersection of the Left Bank of Hakwatuna Oya;

South: From the last mentioned point proceeding south and westwards along the left bank of the southern branch of Hakwatuna Oya upto the intersection of the water edge of Hakwatuna Oya Reservoir;

West: From the last mentioned point proceeding northwards along the water edge of the Hakwatuna Oya Reservoir upto the point of intersection of the right bank of the northern branch of Hakwatuna Oya, thence proceeding along the right bank of said stream upto the point of intersection of the foot path from polpithigama to Pibidunagama and thence westwards along the foot path upto the intersection of the Left Bank of Ulpotha Ela and thence along the left bank of Ulpotha Ela upto the point of intersection of the Eastern

village boundary of Ulpotha (F.V.P. 3030) and thence northwards along the eastern village boundaries of Ulpotha, Dambe, Ehetugahadalupotha, Rambawa, Palugolla, Mahattewa, Maha Kirula, Herathgama, Galahitiyagama, Tibbotuwewa, Hatangama, Siyabalewa, Pothana, Talawa and Katupatwewa upto the point of intersection of the boundary of the North Western Province, thence north westwards along the provincial boundary upto the eastern village boundary of Indigollegama and thence northwards along the eastern village boundaries of Indigollegama and Ihala Habarawatta villages upto the point of intersection of the road from Mudiyanne-gama to Kalanchiya, thence proceeding west-wards and north westwards along the said road upto the point of intersection of the boundary of the North Western Province, thence pro-ceeding northwards along the province boundary upto the point of intersection of the cart track from Weliyaya to Tammennawa, thence proceeding westwards and north west-

wards along the northern edge of the road up to the point of commencement.

The following area of land situated within the limits of the Kahalla-Pallekelle Sanctuary specified above in the Anuradhapura District, North Central Province the boundaries of which are specified below shall be excluded from, and shall not form part of the area comprising the Kahalle-Pallekelle Sanctuary

North: Northern village boundaries of Ambagaswewa and Talakolawewa;

East: Eastern village boundaries of Talakolawewa, Ambagaswewa, Wambatuwawa, Rambewakolungaswewa, Kolamunnegama and Ramaluwa;

South: Southern village boundary of Ratmaiwewa

West: Boundary of the N.W.P., Northern boundary of Kolamunnegama village and Siyambalan-gamuwe Oya.

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