PREPARATION OF A LAND USE MANAGEMENT PLAN FOR THE SELECTED GRAMA NILADHARI DIVISIONS ON THE BOUNDARY OF LUNUGAMVEHERA NATIONAL PARK

Prioritization and Identification of Hot spots

Rapid Assessment Report

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List of abbreviations

DS	Divisional Secretariat
DWC	Department of Wildlife Conservation
EPA	Environmental Protected Areas
ESA	Environmental Sensitive Areas
FD	Forest Department
GIS	Geographical Information Systems
GN	Grama Niladhari
GND	Grama Niladhari Division
LUPPD	Land Use Policy Planning Department

Introduction

In terms of biodiversity, Sri Lanka is one of the top countries in the world and the endemic species are also highly valued. Therefore, protected areas in Sri Lanka play on important role in biodiversity conservation. Currently, there are 26 National Parks in Sri Lanka, 20 of which are located in the dry zone. Out of that, 5 National Parks are located in Monaragala district and they are Galoya, Maduruoya, Udawalawa, Yala and Lunugmvehera.

Lunugamvehera national park is located in Monaragala district of Uva Province bordering Hambantota District in Southern Province. Extent of national park is about 23,498 Ha. Park was declared in 1995. Main objective of declaration was protecting the catchment area of Lunugamvehera reservoir and wildlife of the area. The natural park is an important habitat for water birds and elephants. Park consists of several forest layers. Dry evergreen, Mosaic of scrubland and grassland are main types of forest with rich in biodiversity. So many types of fish species, amphibians, reptiles, birds and mammals are lived in Natural Park. This natural park is also serve as a corridor for elephants to migrate between Yala and Udawalawa national park. Normally 1 mile (1.6Km) of buffer zone is allocated for a park. But most of time different uses can be seen in this region. Due to lack of planning and development controls, many issues are there. Those are human elephant conflict, land degradation, poaching with and outside of national park boundary, cattle grazing within the national park, deforestation due to agriculture (Chena and commercial) and forest degradation. Various land use issues arisen within National Park, in the buffer zone and nearby areas. In this plan, not only in the buffer zone but also in the national park zone, all the GNDs are considered.

A wide range of criteria were used in the rapid assessment to prioritize problem areas among GNDs. For this 13 Grama Niladhari Divisions have been selected from Monaragala District and another 09 from Hambantota District. Because we have to strengthen and developed well managed GNDs from the boundary of the Lunugamvehera National Park to fulfill the main objectives of the Federation of environmental organization.

According to a request made by federation of environmental organizations, on the guidance of Land Use Policy Planning Department, the problem of the relevant area were identified and prioritized among the GNDs to prepare the land use management plan.

This rapid assessment is expected to help conserve biodiversity and natural resources, uplifting the wellbeing the surrounding communities of the area by developing a sustainable land use management plan.

1. Objectives

To identify and prioritize the major challenges facing the GNDs that are located boundary of the National Park, the geographical location of these hotspots and identify preliminary solutions with relevant government stakeholders with undertake a rapid assessment.

2. Study area

The Lunugamvehera National Park is spread over four Divisional Secretariat Divisions in Monaragala District and that are Thanamalwila, Wellawaya, Buttala and Kataragama. The coordination location of the area is considered to be between 6.3405 - 6.7036 North Latitude and 81.0212 – 81.4924 East Longitudes.

GNDs located on the border of the National Park has been selected for this programme. The list of Grama Niladari Divisions that are surrounded by the National Park and the extent of land within and outside of the park are shown in below (Table 3.1). Map of the study area are also shown in (Figure 3.1)

Debaraara, Mahaaragama, Bodagama Grama Niladari Divisions are located outside of the boundries of the National Park. Uvakudaoya, Kivulara and Sellalataragama Grama Niladari Divisions are located on the boarder of the National Park and the Other 7 Grama Niladari Divisions namely Gonaganara, Rahatangama, Kithulkote, Sittarama, Seenukkuwa, Kandasurindugama and Karavile are located within and outside of the park.

Table 3.1: Grama Niladari Divisions surround the Lunugamvehera National Park covered under the Rapid Assessment

D.S. Division	G. N. Division	Area in Haters		
		Inside Park	**Outside park**	**Total**
Buttala	Rahathangama	902.01	6,518.65	7,420.66
	GonaganAra	362.10	29,345.18	29,707.28
Wellawaya	Kithulkote	7,268.30	2,224.37	9,492.67
	Debara Ara	-	3,860.69	3,860.69
	Uva Kudaoya	4.07	3,585.28	3,589.35
	Mahaaragama	-	4,015.38	4,015.38
Kataragama	Sella kataragama	0.20	4,440.28	4,440.48
	Karavile	7041.05	2,307.27	9,348.32
	Kandasurindugama	15.01	1,707.57	1,722.58
Thanamalvila	Bodagama		2,054.10	2,054.10
	Kivul Ara	0.56	538.04	538.60
	Sittarama	6,515.32	594.07	7,109.39
	Sinukkuwa	3,042.99	1,713.89	4,756.89
Total		25,151.60	62,904.79	88,056.39

Source: District Land Use Planning office, Monaragala

The total area selected for rapid assessment is about 88,056.9 hectares, out of which about 62,904.79 hectares are located outside the park and the remaining 25,151.60 hectares are located inside the park.

Lunugamvehera national park is situated in the dry zone of Sri Lanka. Therefore more quickly park is expose to drought. The rain mechanism that contributes to rain in this area is the Northeast Monsoon with rain between November to January. The elevation of park is 91m (299ft). Annual rain fall is about 900mm nearly Thanamalwila area. Mean annual Temperature is about 30ºC.

Figure 3.1: Map showing Lunugamwehera National Park and Selected D.S. Division

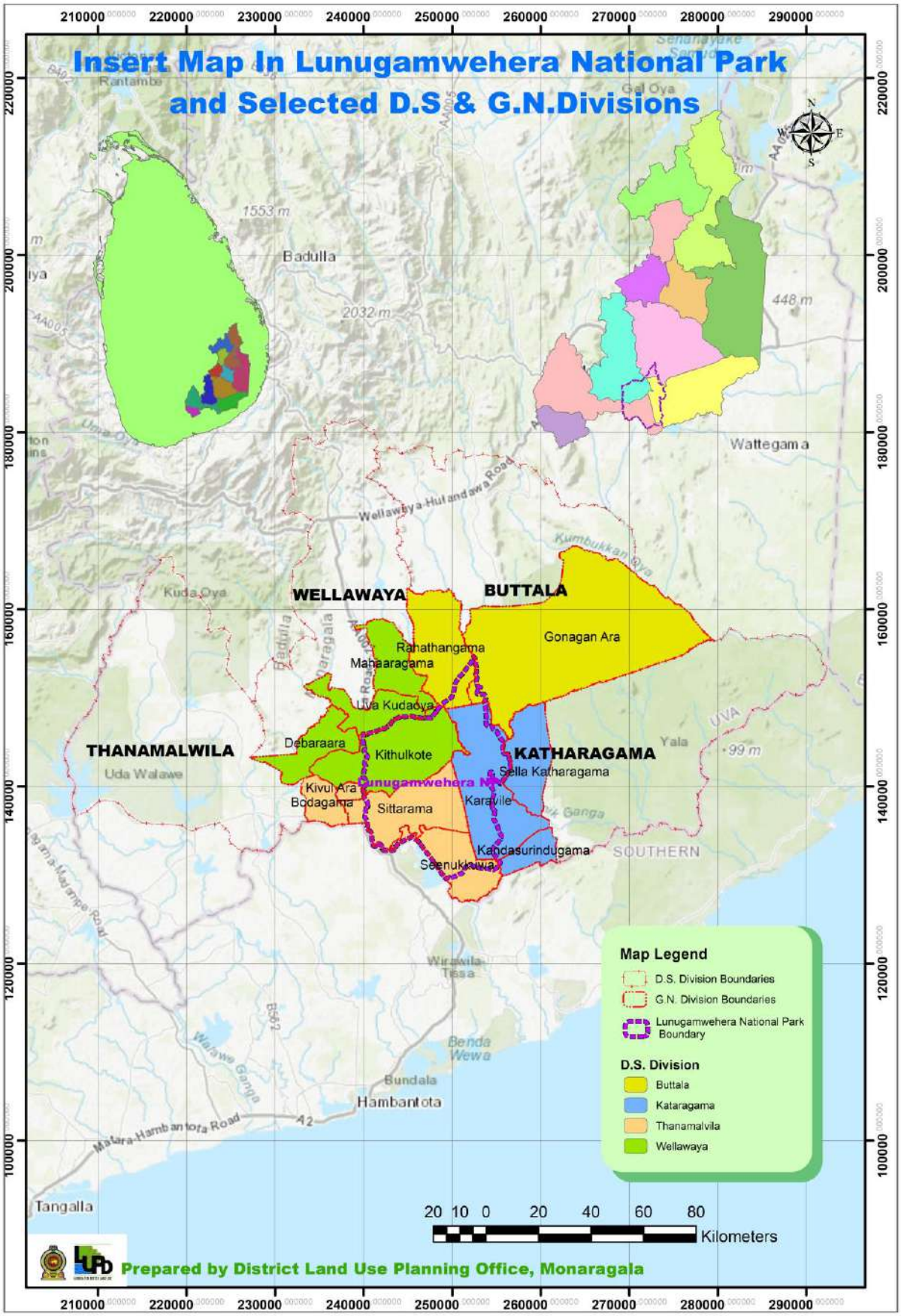
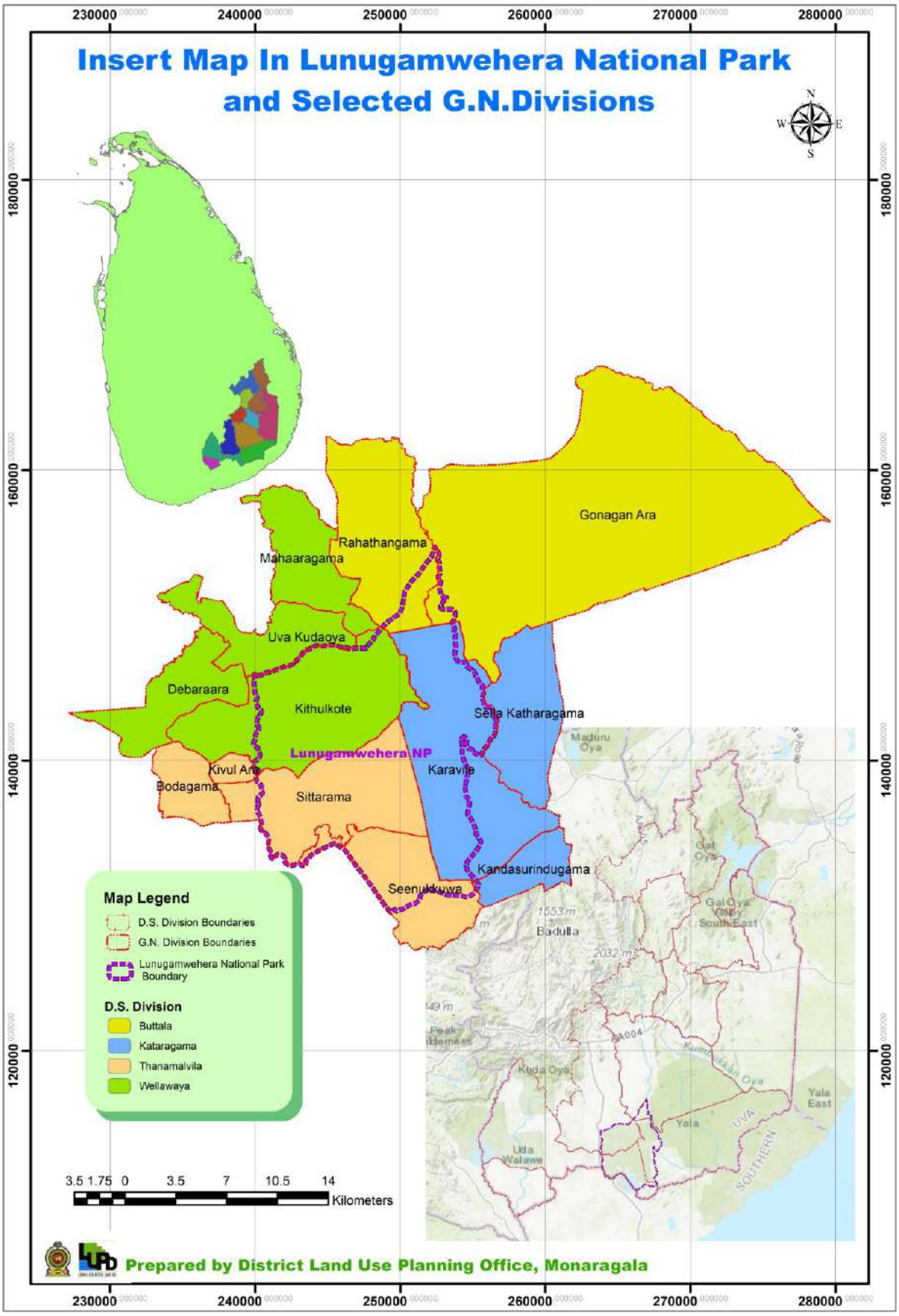


Figure 3.2: Map showing Lunugamwehera National Park and Selected G.N. Divisions



4.Data Used

Primary and secondary data used for this purpose. The department of wild life conservation, department of forest conservation, department of survey, department of animal production and health, department of archaeology, department of agriculture, department of irrigation, Regional veterinary office, Environmental authority, divisional secretariat, agricultural service centers, district disaster management center can be known as the institutions that obtained secondary data. Maps and records are gathered from those institutions.

Primary data was obtained through stakeholder meetings, community discussions and field visits. Stakeholder meetings were held for all the 04 divisional secretariats separately and information was obtained. Conducted separate community discussions for 13 Grama Niladari Divisions through which information was collected at village level. Some of hotspot areas were observed and gathered data and location after the community discussions with them.

5.Methodology

Preliminary discussion was conducted between the Federation of Environmental Organization and Land Use Policy Planning Department.

A methodology was developed with criteria and weights that could meet the goals of the relevant organization. (Shown in Table 5.1)

The District Secretary informed about this program and the District Secretary informed all the Divisional Secretaries, Wildlife Department Officers, Park Officers, District Forest Officer, Provincial Director of Animal Production and Health Department and other relevant officials in writing.

Under the leadership of the Divisional Secretary and with the participation of the District Land Use officers, all the officials who are suitable to be involved in this program were invited at the Divisional Secretariat Division level and a full awareness about the program was made for 04 divisions.

After that, discussions were held with the participation of farmer organizations and community leaders for all the 13 Grama Niladari Divisions and the information related to the above determinants was obtained at the village level. Here, field inspections of major issues areas were also conducted and GPS data was obtained.

In the discussion at the community level, they have a good understanding of the problems existing in the field and their practical situation and practical suggestions are also presented. There is also a need to have a good understanding of the problem areas and find solutions for them.

All numerical and recorded data required for the program were obtained by Southern and Uva Regional office of Wildlife Department, National Park Office, District Forest Office, Divisional Beat Office, District and Divisional office of the Animal Production and Health Department, District Environment Authority, Agrarian Development Office of relevant Area and the community of Farmer Organization. Analysis, weighting and prioritization of the problems were done according to the severity at the village officer domain level.

Using the information obtained through various institutions and the community and the information obtained through field visits, maps and tables were prepared with a view to achieving the objectives of the program, and geographic information systems were used here. At the end of the analysis, the report was prepared using the information, the opinions and suggestions of the stakeholder institutions and the community were presented.

Table 5.1: Criteria for the implementation of the Rapid Assessment, the assessment method of the relevant criteria and the weightage

No	Proposed Criteria	Method of Assessment	Description of Weightage
1	Percentage of land extent available in the GND	Extent of GNDs within the 1 km buffer (Extent calculation using GIS)	Give value from 1 to 10 depending on the extent of GNDs (0-3 ha = 1/ 3-6 ha = 2 etc.)
2	Percentage of land extent of Lunugamvehera National Park available in the GND	Updated GIS layers (DWC /LUPPD/ Survey Department)	Give value from 1 to 5 depending on the extent of GNDs (0-3 ha = 1)
3	Human elephant conflicts occurred during past 2 years within the GNDs	Secondary data from DWC/ DS, Community discussions	
3.1	Number of deaths (during past 2 years)	Secondary data from DWC/ DS, Community discussions	Deaths = 3
			Disabled =2
			Injured =1
3.2	Damage of houses (each household)	Secondary data from DWC/ DS, Community discussions	Fully damage = 3 (If 3 houses = 3*3= 9)
			Half damage = 2
			Minor damage = 1
3.3	Elephant fence	Secondary data from DWC/ DS, Community discussions	Already having = 1
			Under construction = 2
			Proposed fence = 3
			None = 4
3.4	Frequency of elephant's raid on village (per month)	Secondary data from DWC/ DS, Community discussions	> 5 = 3
			4_3 = 2
			<2 = 1
3.5	Number of elephants deaths (During past 2 years)	Secondary data from DWC/ DS, Community discussions	> 5 = 3
			4_3 = 2
			<2 = 1
3.6	Percentage of crop damaged land extent due to elephant's raid on cultivated lands	Secondary data from DWC/ DS, Community discussions	>2 = 3
			2_1 = 2
			<1 = 1

4	Other animal threats	Secondary data from DS/GN, Community discussions	Peacocks = 1
			Monkeys =1
			Porcupines =1
			Pigs =1
			Giant squirrels = 1
			Snail =1
			Jungle fowl =1
			Hornbill =1
			Coconut beetle =1
5	Severity/ magnitude of land degradation	Field observation + Community discussion	
5.1	Land degradation due to deforestation High	Field observation + Community discussion	High = 3
			Moderate =2
			Low =1
5.2	Land degradation due to cattle grazing	Field observation + Community discussion	High = 3
			Moderate =2
			Low =1
5.3	Land degradation due to mining (sand, dolomite etc.)	Field observation + Community discussion	High = 3
			Moderate =2
			Low =1
6	Occurrence of degradation of forest lands	Map Analysis + Discussion with forest and wildlife officers	Value on availability of considered land extent
7	Number of poaching incidences reported in one year	Secondary data from DWC/ DS/GN, Community discussions	>5 =3
			4_3 =2
			<3 =1
8	Cattle population in the GND >500	Farmer Organizations + Community discussion + Regional vet. Office + information from dept. of Animal production and health, GN	>500 = 5
			500_200 = 4
			<200 = 3
9	Number of families depend on animal husbandry	Community discussion + Regional vet. Office + information from dept. of Animal production and health, GN	Poultry farming =1
			Goat farming = 1
			Pigs farming = 1
			Other (Specify) =1
10	Availability of ESA/EPA areas in the GNDs Complete ESA/EPA	Use of GIS layer from the FD/DWC	Complete ESA/EPA = 5
			Part of ESA/EPA = 3
			None = 0
11	Availability of grazing lands in the GND	Community discussions + Discussion with GN and other field officers	Available = 2
			None=0
12	Percentage of land extent of chena in the GND	Community discussions + Discussion with Agric instructor and other relevant officers + Map Analysis	Give appropriate value on availability of considered land extent
13	Percentage of land extent of commercial cultivation in the GND	Community discussions + Discussion with Agric instructor and other relevant officers + Map Analysis	Give appropriate value on availability of considered land extent
14	Occurrence of degradation of forest lands	Map Analysis + Discussion with forest and wildlife officers	Give appropriate value on availability of considered land extent
15	Any protective/ conservation measures taken to protect/conserve buffer zone and their effectiveness	Discussion with DS, Officers of DWC and Community	Give appropriate value on availability of considered land extent

16	Percentage of extent of underutilized lands	Map analysis using updated land use layer	Give appropriate value on availability of considered land extent
17	Percentage of land extent of encroachment	Discussion with DS, Officers +GN+ Community Discussion	Give appropriate value on availability of considered land extent
18	Number of Archaeological sites in the GND - Available	Community discussions + Discussion with relevant officers + secondary data +GN	Available = 2
			None = 0
19	Availability of land allocated for the grazing purpose	Community discussions + Discussion with Agric instructor and other relevant officers + Map Analysis	Available = 2
			None = 0
20	Occurrence of migrated cattle in the GND for grazing	Discussion with Farmer Organization and community	Available = 2
			None = 0
21	Availability of unused lands in GND	Community discussions + Discussion with relevant officers + secondary data +GN + Map Analysis	Give appropriate value on availability of considered land extent
22	Present status of Tanks (Wewa) available in the GND	Community discussions + Discussion with relevant officers + secondary data +GN + Map Analysis	Working Tank = 1
			Proposed to be rehabilitated = 2
			Abandoned Tank = 3
23	Percentage of surface water bodies available in the GND	Map Analysis (Use GIS layers of updated water bodies)	Value on available percentage of water body
24	Irrigation canals and stream network available in the GND	Calculate the drainage density of the GND	Value on drainage density

6. Results

After analyzing the primary and secondary data obtained for the assessment, the following maps and tables were prepared based on the results obtained.

6.1. Status of Human-elephant conflict (During Past 02 years)

D.S. Division	G.N. Division	Damage to people			Damage to Houses			Damages to other properties (Agricultural machines & instruments)	Damages to crops (land extent (ha)	Frequency of raids per month (days)	Elephant deaths	Special remarks
		Number of deaths	Number of disabled	Number of injured	Fully damaged	Half damaged	Minor damages					
Buttala	Rahathangama	0	0	7	15	50	0	0	1215	20	1	
	GonaganAra	1	0	5	1	12	0	1*	200	20	3	* Motor Bik to full damage
Wellawaya	Kithulkote	1	0	0	0	0	10	0	200	30	0	
	Debara Ara	0	0	0	0	0	0	0	12	30	0	
	Uva Kudaoya	0	0	0	0	22	0	0	150	30	0	
	Mahaaragama	0	0	0	0	2	0	0	120	30	6	
Kataragama	Sella kataragama	0	0	0	0	0	0	0	122*	10	0	*Only one year
	Karavile	0	0	0	0	15	0	0	343*	30	4	*Only one year
	Kandasurindugama	0	0	0	0	1	0	0	100*	30	0	*Only one year
Thanamalvila	Bodagama	2	0	0	7	0	0	0	202	30	1	
	Kivul Ara	0	0	0	1	0	0	0	52	30	0	
	Sittarama	1	0	0	0	3	0	0	202	30	0	
	Sinukkuwa	0	0	0	20	6	0	0	60	30	1	

Source: Verified data in the Field & other Institute

When Buttala Divisional Secretariat is taken, due to the raid of elephants, the loss of life and property as well as the damage to crops is enormous. On average, elephants raid about 20 days a month. Field surveys confirmed that the same house was damaged multiple times in Gonaganara Grama Niladari Division. The community said that the route of elephants lies through this place.

Loss of life has been reported in Kithulkote domain of Wellawaya Divisional Secretariat Division and Bodagama and Sittarama Grama Niladari Divisions of Tanamalvila Divisional Secretariat Division in the relevant time frame.

House damage was reported in Kitulkote, Uvakudaoya and Mahaaragama Grama Niladari Divisions of Wellawaya Divisional Secretariat Division, Karawila and Kadasuridugama

Grama Niladari Divisions of Kataragama Divisional Secretariat Division and all four Grama Niladari Divisions of Tanamalvila Divisional Secretariat Division.

Wild elephants raid every day in all Grama Niladari Divisions and therefore crop damage also occurs on a large scale. Coconut, Mango, Papaya, Pomegranate, Banana, Sugarcane, Watermelon, Vegetables and Paddy can be named.

In 6 out of 1**3** Grama Niladari Divisions, elephants have been killed and the highest number of deaths are reported in Maharagama and Karawila Grama Niladari Divisions.

Figure 6.1. Present Status of Electric Fences

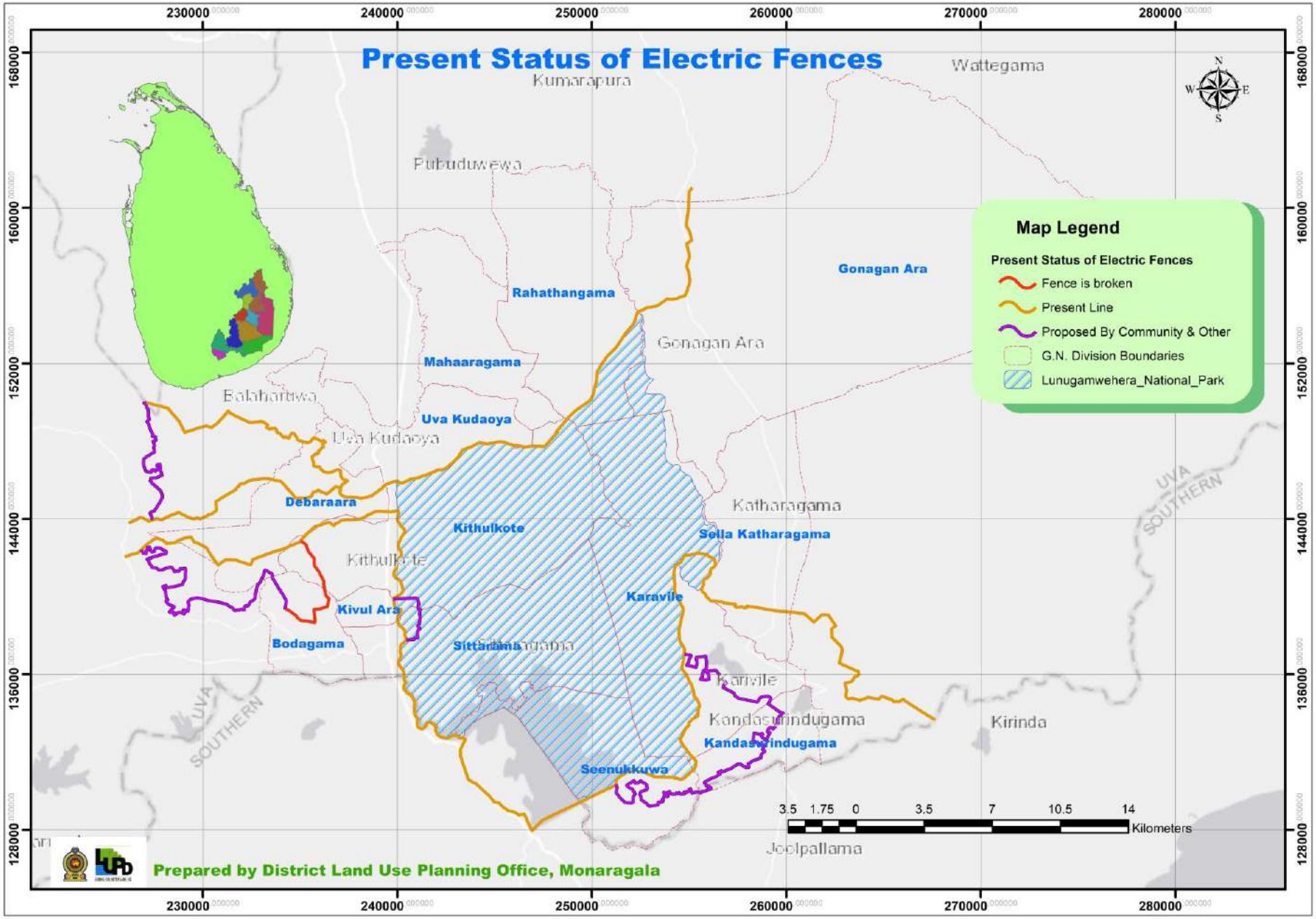
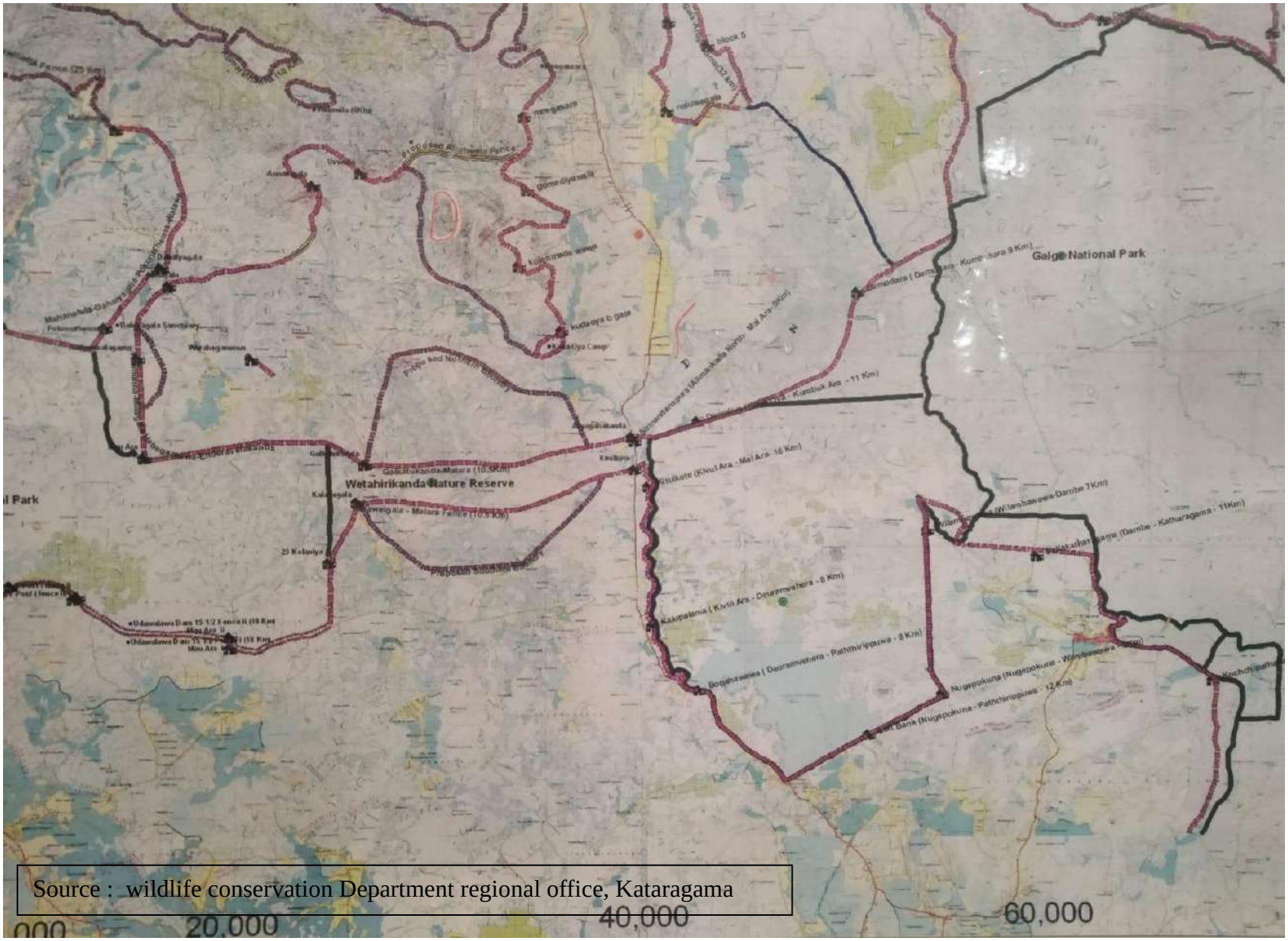


Figure 6.2. Status of Electric Fence in DWC



6.2. Availability of Electric Fences to protect the village

D.S. Division	G. N. Division	Available	Under construction	Proposed	None	If none suggested electric fence	Special Remarks
Buttala	Rahathangama	✓*	×	×	×	×	From Demodara to Kirindi Oya Kanda reserve & Along the National Park Boundary & kirindi Oya (Maintenance of the electric fence is a problem)
	GonaganAra	✓*	×	×	×	×	*From Demodara to Ayakapolla (Along the National Park Boundary) & From Diyakiriththa village to Diyakiriththa End (Maintenance of the electric fence is a problem)
Wellawaya	Kithulkote	✓*	×	✓**	×	×	*From Aliyagala Kanda to Wetahira Kanda reserve & Along the National Park Boundary & kirindi Oya (Maintenance of the electric fence is a problem) ** From Kiitulkote start Forest Land to Kiitulkote End in forest Land (Wetahirakanda Outside)
	Debara Ara	✓*	×	×	×	×	From Lunugamvehera to Udawalawa National Park & from Kuda Oya to Kahakurullan Pelessa (Maintenance of the electric fence is a problem)
	Uva Kudaoya	✓*	✓***	✓**	×	×	*From Buttala to Demaliya Sirinanadana Pura Along the National Park Boundary (Maintenance of the electric fence is a problem) ** From Ranawara wewa to Demaliya Pathanayaya & from Kuda Oya to Kudaoya bridge
	Mahaaragama	✓*	×	×	×	×	*From kadawara Wewa to Kukulkatuwa Kanda Along the National Park Boundary (Maintenance of the electric fence is a problem)
Kataragama	Sella kataragama	✓*	×	×	×	×	From Karavila to Sella Kataragama (Along the Forest Boundary (Maintenance of the electric fence is a problem)
	Karavile	✓*	×	✓**	×	×	* From Kadasurindu Gama to Karavila (Along the National Park Boundary (Maintenance of the electric fence is a problem) ** From Kandasurindu gama to Karavola Wildlife Sub office
	Kandasurindugama	✓*	×	✓**	×	×	*From Thammennawa wewa to Karavila GND (Along the National Park Boundary (Maintenance of the electric fence is a problem) ** From Tammennawa Wewa to karavila GN Boundary
Thanamalvila	Bodagama	×	×	×	×	×	
	Kivul Ara	✓*	✓	✓	×	×	* From Indipelessa to Mahawewa (Maintenance of the electric fence is a problem and damage to fence)
	Sittarama	✓*	✓	✓**	×	×	* From Kitulkote to Lunugamwehera National Park End (Along the National Park Boundary) (Maintenance of the electric fence is a problem) ** From Sarwodaya Land to Jeewan Gama
	Sinukkuwa	✓*	×	✓**	×	×	*From Tammennewa Wewa to Wildlife Office (Along the National Park Boundary (Maintenance of the electric fence is a problem) ** From Tammanne Wewa to Pilimahela Village

Source: Verified data in the Field & other Institute

Electric fences have been built to protect many villages. Electric fences are being constructed for some villages and fences are proposed for the rest. The community stated that the main problem here is that the electric fences are not properly maintained.

Details of existing, under construction and proposed electric fences have been presented under Special remarks.

6.3. Intensity of crop damage by other animals

D.S. Division	G. N. Division	Peacocks	Monkeys	Porcupines	Pigs	Giant squirrels	Snail	Jungle fowl	Hornbill	Coconut beetle
Buttala	Rahathangama	75%	X	X	X	50%	X	X	X	X
	GonaganAra	75%	40%	X	X	50%	X	X	X	X
Wellawaya	Kithulkote	60%	70%	20%	30%	30%	20%	X	X	X
	Debara Ara	75%	60%	30%	X	60%	X	40%	X	X
	Uva Kudaoya	60%	80%	10%	X	70%	X	X	40%	30%
	Mahaaragama	75%	75%	X	X	80%	X	X	X	X
Kataragama	Sella kataragama	80%	70%	X	X	X	X	X	X	X
	Karavile	90%	85%	X	X	X	X	X	X	X
	Kandasurindugama	85%	75%	X	X	X	X	X	X	X
Thanamalvila	Bodagama	80%	100%	X	X	60%	X	X	X	X
	Kivul Ara	80%	100%	X	X	60%	X	X	X	X
	Sittarama	80%	100%	X	X	60%	X	X	X	X
	Sinukkuwa	80%	100%	X	X	X	X	X	X	X

Source: Verified data in the Field & other Institute

When the damage from other animals was taken out, Peacocks and Monkeys were identified as leading among the damage to crops for all 13 Grama Niladari Divisions. Apart from this, all the 4 Grama Niladari Divisions of Kataragama and Thanamalwila Divisional Secretariat, except Sittarama Grama Niladari Division, are significantly damaged by Jaint Squirrels. In addition, Procupines, Pig, Jungle Fowl and Cooconut Beetle infestations are reported in Wellawaya Divisional Secretariat Division.

Both the community and the Stake holder officials were of the opinion that the damage caused by other animals outweighs the damage caused by elephants. In addition to crops, houses were also severely damaged. And the total damage of the coconut plantations was affected by the Monkeys.

6.4. Intensity of Land degradation

D.S. Division	G. N. Division	Deforestation	Cattle grazing	Mining	Special Remarks
Buttala	Rahathangama	75%	75%	00%*	*Not Mining
	GonaganAra	25%	10%	00%*	*Not Mining
Wellawaya	Kithulkote	50%	75%	50%	
	Debara Ara	50%	75%	50%	
	Uva Kudaoya	50%	75%	50%	
	Mahaaragama	50%	75%	50%	
Kataragama	Sella kataragama	50%	60%	5%	
	Karavile	80%	20%	5%	
	Kandasurindugama	80%	20%	00%*	*Not Mining
Thanamalvila	Bodagama	50%	50%	00%*	*Not Mining
	Kivul Ara	50%	50%	00%*	*Not Mining
	Sittarama	50%	50%	00%*	*Not Mining
	Sinukkuwa	50%	50%	00%*	*Not Mining

Source: Verified data in the Field & other Institute

Deforestation and grazing by cattle can be known as the main factors affecting land degradation. In Kataragama Divisional Secretariat Division, Karavila and Kadasuridugama Grama Niladari Divisions, land degradation due to grazing is less. Also due to mining, about 50% land degradation occurs in Wellawaya Divisional Secretariat Division and minor degradation in Kataragama Divisional Secretariat Division.

The main factor for deforestation can be considered to be the crops related to chena cultivation during the Maha season. Soil preparation and short-term crop cultivation, which is done constantly using machines, directly affects land degradation.

There is no grazing land for cattle. Therefore, the cattle owners have allowed the cattle to be free. In many cases, the grasses in the lake areas are released to graze, which directly affects land degradation. Some lakes in the Wellawaya area appear muddy throughout year. Other than that Crops are also severely damaged by stray cattle.

6.5. Number of poaching incidences reported in one year

D.S. Division	G. N. Division	No of poaching 2021	No of poaching 2022
Buttala	Rahathangama	50	55
	GonaganAra	6	1
Wellawaya	Kithulkote	4	3
	Debara Ara	8	11
	Uva Kudaoya	3	2
	Mahaaragama	6	4
Kataragama	Sella kataragama	16	13
	Karavile	16	14
	Kandasurindugama	9	6
Thanamalvila	Bodagama	4	6
	Kivul Ara	10	15
	Sittarama	3	5
	Sinukkuwa	8	13

Source: Verified data in the Field & other Institute

The recorded information about illegal hunting of wild animals was obtained by the police and wildlife department, where the highest amount of hunting is reported in Rahatangama Grama Niladari Divisions. But illegal hunting of wild animals is reported from every Grama Niladari Divisions. During discussions with the community, they stated that unrecorded poaching of wild animals is common.

The community stated that during the dry season, animals are hunted by using poisoned water for drinking in the wildlife zone and that these practices are illegal.

6.6. Present Status of Animal Husbandry

D.S. Division	G. N. Division	Number of cattle owners	Number of cows	Number of buffaloes	Number of cattle sheds	Grazing inside the National Park	Number of families depend on other types of animal husbandry					
							Poultry farming		Goat farming		Pig farming	
							Families	Numbers of chickens and hens	Families	Number of goats	Families	Number of pigs
Buttala	Rahathangama	29	425	750	20		7	70	0	0	1	800
	GonaganAra	43	249	182	2		10	186	0	0	0	0
Wellawaya	Kithulkote	47	94	932	2		9	43	0	0	1	14
	Debara Ara	56	547	2967	0		8	48	1	16	1	58
	Uva Kudaoya	32	62	595	1		5	55	1	11	0	0
	Mahaaragama	53	866	3672	2		15	60	0	0	0	0
Kataraga ma	Sella kataragama	19	220	537	14		7	1125	0	0	1	39
	Karavile	31	327	659	18		11	225	2	27	0	0
	Kandasurindugama	34	167	248	18		8	285	2	23	2	263
Thanamal vila	Bodagama	30	265	800	3	500	15	165	0	0	0	0
	Kivul Ara	45	232	630	1	0	25	1440	0	0	0	0
	Sittarama	71	290	700	1	0	30	470	0	0	0	0
	Sinukkuwa	58	240	300	3	700	10	110	0	0	0	0

Source: Verified data in the Field & other Institute

Details of registered families living under animal husbandry were obtained from the Provincial Deputy Director Animal Production and Health Department and the Regional Animal Production Office. Here, the people associated with a way of life based on animal production were identified in all the 13 Grama Niladari Divisions. The largest number of registered buffalo population lives in the 2 Grama Niladari Divisions of Wellawaya Division, Debarara and Mahaaragama. The community stated that the cattle population in almost every Grama Niladari Divisions, especially buffaloes, are being introduced into the park without the permission of many people. It was stated that this happens excessively in Wellawaya and Tanamalvila Divisional Secretariat Divisions. The community stated that the electric fence will also be damaged during the entry of these animals.

Although the above table shows the number of registered animals, it was stated in the community discussion that the population is more than that.

Apart from this, chicken farming, goat farming and piggery farming are more or less widespread in all the remaining 4 divisions except Thanamalvila Division.

Although it was stated in the stakeholder meetings that grazing lands were reserved for cattle and buffaloes in the past and currently other crops are spread on those lands, no specific information was received. Lack of grazing land for cattle and buffaloes are a major problem and the Department of Animal Production stated that it is important to propose a suitable program for it.

6.7. Archaeological sites

D.S. Division	G. N. Division	gazette	Proposed	
Buttala	Rahathangama	0	2*	*Bolhindagala reserve *Bambaragala Kanda reserve
	GonaganAra	3	1*	*Diyakiritha Holmangala
Wellawaya	Kithulkote	1	0	
	Debara Ara	0	0	
	Uva Kudaoya	2	0	
	Mahaaragama	3	0	
Kataragama	Sella kataragama	0	0	
	Karavile	1	2*	* Karavile wewa Lake swing * Stone pillars near Kalli wewa
	Kandasurindugama	0	1*	*Kaberi Mudukkuwa Kanda Caves
Thanamalvila	Bodagama	0	0	
	Kivul Ara	2	0	
	Sittarama	0	0	
	Sinukkuwa	1	3*	*Pilimahela *Sandagala *Padikepuhela

Source: Verified data in the Field & other Institute

There are no identified archeological sites in 04 Grama Niladari Divisions and the information about archaeological important sites gazette in the remaining 09 Grama Niladari Divisions and identified in this program is shown in Table 6.7. It is important to pay close attention to these places while making future plans.

6.8. Occurrence of migrated cattle in the GND for grazing

D.S. Division	G. N. Division	No of migrated cattle	Remark
Buttala	Rahathangama	1000	
	GonaganAra	500	
Wellawaya	Kithulkote	300	
	Debara Ara	200	
	Uva Kudaoya	400	
	Mahaaragama	1500	
Kataragama	Sella kataragama	1000	
	Karavile	0	
	Kandasurindugama	1000	
Thanamalvila	Bodagama	500*	*From Embilipitiya
	Kivul Ara	100*	*From Neluwa yaya
	Sittarama	0	
	Sinukkuwa	500	From Thissa ,Sadungama and Ha

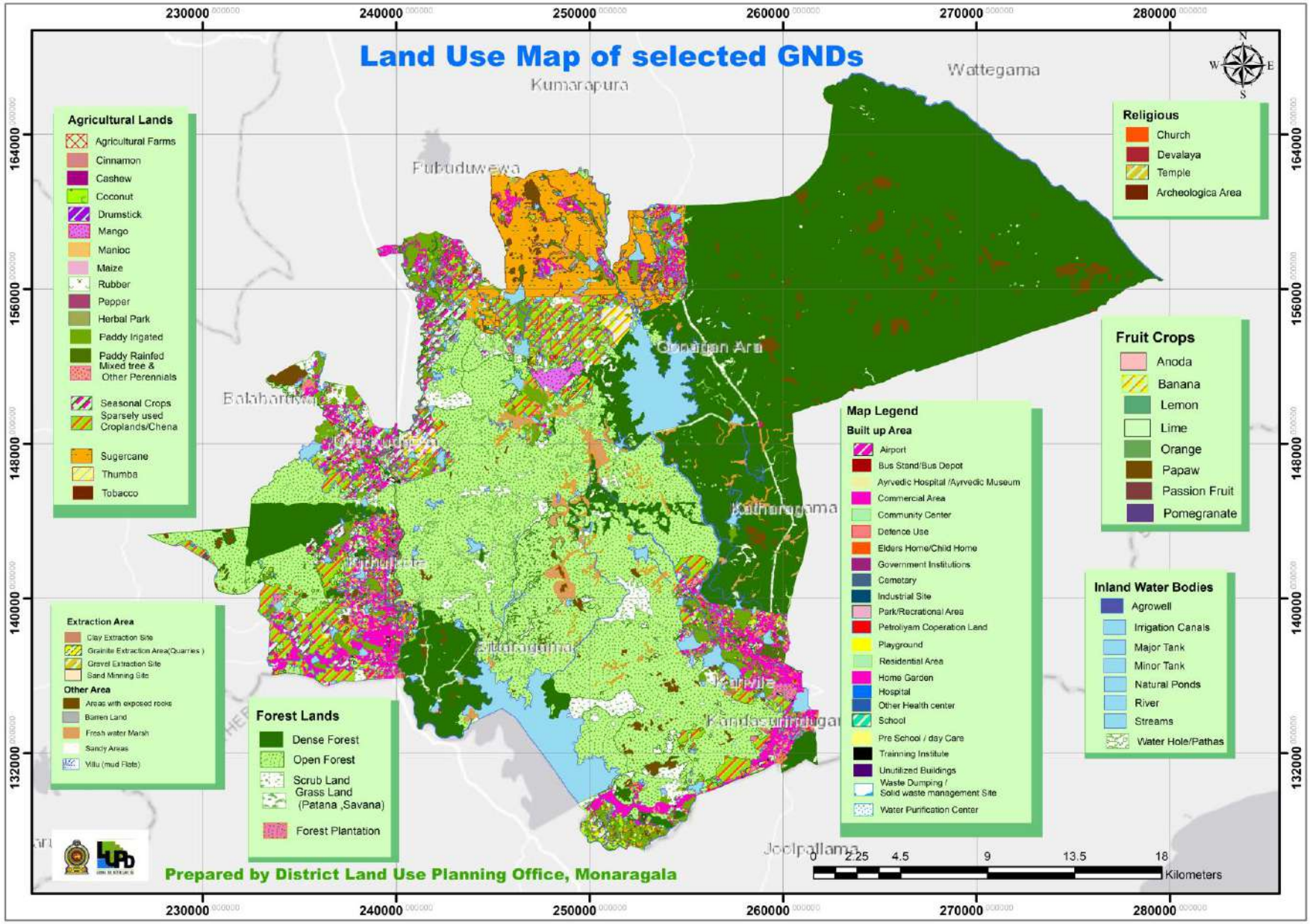
Source: Verified data in the Field & other Institute

Migration of cattle from other areas to relevant area can be identified as a major problem in Monaragala district. A large number of cattle migrate especially from Embilipitiya, Neluwaya, Tissa, Sadungama and Hambantota. These migrating cattle eventually enter forest reserves and wildlife areas as well as damage farmland.

The migration of cattle from other areas can be termed as a huge problem in the background where there is no grazing land for the cattle population in the Monaragala district.

Cattle migration from Tissa and Hambantota areas to Siambalanduwa area via Yala Park main road in Kataragama, Buttala Divisional Secretariat. In the meantime, agricultural lands are also damaged. Cattle migrating from Ambilipitiya and Tissa areas also damage the forest conservation, wildlife and farmlands in Rahatangama and Wellawaya and Thanamalwila areas.

Table 6.3. Present Land Use



6.9. Present Land Use 2022

Present Land Use			D.S. Divisions & G.N. Divisions Extent (ha)														As a% to the total land area
			Buttala		Kataragama			Wellawaya				Thanamalvila				Grand Total	
Main Category	Sub Category	Land Use Type	Gonagan Ara	Rahatha ngama	Kandasuri ndugama	Karavil e	Sella Katharaga ma	Kithulk ote	Debaraara	Mahaar agama	Uva Kudaoy a	Bodaga ma	Kivul Ara	Seenuk kuwa	Sittara ma		
Built up Area	Settlement	Residential Area	0.00	0.00	0.00	0.00	0.00	1.88	4.99	0.00	0.00	0.00	0.00	0.00	0.00	6.86	0.01%
		Home Garden	49.97	97.82	175.43	157.44	79.45	114.51	92.61	157.23	183.64	269.63	109.63	239.11	252.80	1979.26	2.25%
	Commercial/Servi ce Area	Government Institutions	0.16	0.07	1.10	2.77	0.10	0.81	0.16	0.10	0.00	1.59	0.00	0.27	5.17	12.30	0.01%
		Community Centre	0.00	0.13	0.00	0.13	0.09	0.12	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00%
		Commercial Area	0.66	0.00	39.81	44.61	16.35	3.13	0.73	3.28	10.13	0.00	1.41	0.00	14.58	134.70	0.15%
		Elders Home/Child Home	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.04	0.00%
	Industrial Area	Industrial Site	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00%
	Defence Use	Defence Use	1.31	0.00	2.49	0.00	0.00	0.00	0.00	0.00	27.31	0.00	0.00	0.00	0.25	31.37	0.04%
	Public Utility Area	Park/Recreational Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.20	1.20	0.00%
		Playground	1.28	4.60	0.89	0.67	0.00	0.59	0.00	0.00	0.86	0.00	0.85	0.67	2.86	13.28	0.02%
		Cemetery	1.26	0.00	1.44	0.00	0.00	0.86	1.07	0.00	0.31	0.00	0.00	0.92	0.64	6.48	0.01%
Built up Area	Archaeological Area	Archaeological Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.00%
	Religious	Temple	1.19	1.24	9.55	2.08	3.18	3.20	0.79	1.29	2.49	3.38	0.00	2.54	1.56	32.51	0.04%
		Church	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.37	0.00%
		Devala	0.00	0.00	0.00	1.12	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.99	0.00%
	Educational &Research	School	0.59	0.00	0.51	0.31	0.00	1.07	0.72	3.76	2.17	0.00	0.47	0.00	1.10	10.68	0.01%
		Pre School / day Care	0.04	0.17	0.75	0.00	0.00	0.00	0.20	0.25	0.00	0.00	0.00	0.00	0.00	1.40	0.00%
		Training Institute	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00%
Built up Area	Health	Hospital	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	0.97	0.00%
		Ayurveda Hospital	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00%
		Other Health centre	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.42	0.00%
	Infrastructure	Airport	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00%
		Bus Stand/Bus Depot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.23	1.23	0.00%
		Water Purification Centre	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00%
		Petroleum Cooperation Land	0.00	0.00	0.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.49	0.00%
Built up Area	Waste Dumping Site	Waste Dumping / Solid waste management Site	0.00	0.00	2.76	0.00	0.00	0.00	0.00	0.00	2.55	0.00	0.00	0.00	0.00	5.30	0.01%
	Farm	Agricultural Farms	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.32	3.32	0.00%
	Abandoned Built up Area	Unutilized Buildings	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.18	0.00%
Built up Area Sub Total			56.45	104.05	236.91	209.73	101.04	126.20	101.49	166.04	229.46	274.60	112.35	243.52	286.34	2248.14	2.55%
Agricultural Lands	Paddy	Paddy Irrigated	136.52	220.95	11.51	442.97	134.40	199.68	122.70	497.64	208.17	91.90	37.60	331.58	80.80	2516.42	2.86%
		Paddy Rained	1.70	54.49	0.00	16.97	89.63	2.85	0.64	12.82	6.48	4.58	0.38	0.00	0.00	190.54	0.22%
	Plantation Crops	Rubber	6.53	4.04	0.00	0.78	0.00	0.00	0.00	3.83	0.00	0.00	0.00	0.00	0.00	15.19	0.02%
		Coconut	12.29	69.43	13.43	70.03	33.10	47.77	19.80	107.50	39.25	10.00	15.56	85.37	8.92	532.44	0.60%
		Cashew	0.00	0.00	0.00	0.00	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53	0.00%
		Sugarcane	728.17	2661.57	0.00	0.00	0.00	0.09	5.61	250.68	11.96	4.92	0.00	79.88	17.48	3760.35	4.27%
Agricultural Lands	Export Crops	Cinnamon	0.00	0.00	0.00	14.07	0.00	0.82	0.00	1.63	0.32	0.00	0.00	0.00	0.00	16.84	0.02%
		Pepper	0.00	0.00	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.00%

	Fruit Crops	Banana	3.19	245.24	4.69	40.96	26.32	40.12	27.27	38.35	207.42	19.30	4.78	91.75	11.60	761.00	0.86%
		Mango	22.30	227.23	7.19	14.82	6.85	8.76	3.76	5.80	9.28	5.57	6.65	0.64	3.24	322.10	0.37%
		Papaw	0.00	4.84	0.25	2.93	0.00	3.68	7.71	6.18	6.93	0.00	0.00	0.00	0.00	32.52	0.04%
		Pomegranate	0.00	0.00	1.44	0.00	0.00	1.64	0.00	0.00	0.60	0.00	0.00	0.00	0.00	3.68	0.00%
		Orange	0.00	0.00	0.00	1.40	0.00	0.00	0.00	4.68	0.00	0.00	0.00	0.00	0.00	6.08	0.01%
		Passion Fruit	0.00	0.69	0.00	0.00	0.00	0.00	1.43	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00%
		Lemon	0.00	0.00	0.00	2.39	0.00	2.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.88	0.01%
		Lime	0.00	0.00	0.00	0.00	0.00	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67	0.00%
		Anoda	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42	0.00	0.00	0.00	0.00	0.00	3.42	0.00%
Agricultural Lands	Other Cultivation	Mixed tree & Other Perennials	194.36	168.68	122.80	178.22	102.88	177.30	49.05	121.26	45.12	10.63	115.79	29.88	87.06	1403.03	1.59%
		Sparsely used Croplands /Chena	231.42	1457.33	312.56	375.60	20.22	397.13	300.86	353.96	349.05	868.69	96.46	35.63	89.14	4888.06	5.55%
		Seasonal Crops	10.29	122.54	2.83	142.44	46.97	257.04	173.06	605.70	445.52	213.07	48.23	132.06	66.71	2266.46	2.57%
		Herbal Park	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.00%
		Drumstick	0.00	0.00	0.00	0.00	0.00	0.00	0.70	5.00	0.00	0.00	0.00	0.00	0.00	5.70	0.01%
		Thumba	0.00	0.00	0.00	0.00	0.00	26.71	0.00	0.00	0.00	0.00	0.00	0.00	0.23	26.93	0.03%
		Tobacco	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	0.00	0.00	0.00	0.00	0.00	1.76	0.00%
		Maize	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.00	0.00	0.00	0.00	0.00	0.00	2.40	0.00%
		Manioc	0.00	0.00	0.00	0.00	0.00	0.00	1.96	0.00	0.00	0.00	0.00	0.00	0.00	1.96	0.00%
	Agricultural Lands Sub Total		1346.78	5237.04	476.70	1303.87	462.91	1166.82	716.95	2020.22	1330.09	1228.65	325.43	786.79	365.17	16767.43	19.04%
Forest Land	Forest	Dense Forest	25345.62	473.43	188.54	591.10	3282.77	421.04	1079.63	11.67	3.90	3.40	0.00	308.09	1692.50	33401.71	37.93%
		Open Forest	120.14	553.13	609.35	5719.04	20.89	6500.64	1640.67	1373.59	1151.05	380.88	5.95	1371.80	3653.18	23100.32	26.23%
		Scrub Land	152.60	367.58	23.13	566.00	171.41	807.40	107.03	217.00	558.41	72.24	54.98	521.85	305.40	3925.03	4.46%
		Grass Land (Patana ,Savana)	209.22	27.96	0.00	35.25	4.59	2.86	24.34	12.22	0.00	7.90	0.00	0.25	6.81	331.39	0.38%
		Forest Plantation	7.83	35.63	73.30	72.89	18.71	23.92	12.12	12.01	6.24	24.89	11.51	0.00	15.74	314.80	0.36%
	Forest Land Sub Total		25835.41	1457.73	894.32	6984.29	3498.37	7755.88	2863.79	1626.51	1719.60	489.31	72.44	2201.98	5673.63	61073.24	69.36%
Wetland	Marsh	Fresh water Marsh	42.58	102.63	5.17	234.69	160.86	236.03	11.70	41.75	44.52	2.36	0.00	16.19	232.65	1131.12	1.28%
	Villu (mud Flats)	Villu (mud Flats)	0.00	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.56	0.00%
Bare land	Distorted Surface	Barren Land	0.41	19.37	0.00	0.00	0.00	0.00	0.00	0.00	1.37	0.00	0.00	0.00	0.62	21.77	0.02%
	Extraction Area	Clay Extraction Site	0.00	0.00	5.36	0.00	0.82	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.60	0.01%
		Gravel Extraction Site	0.00	0.00	6.34	0.00	0.00	0.00	0.00	0.00	0.00	1.66	0.78	0.00	1.73	10.51	0.01%
		Granite Extraction Area(Quarries)	0.00	0.00	0.91	4.01	0.00	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00	6.19	0.01%
		Sand Mining Site	0.00	0.06	0.00	0.90	0.00	4.95	0.00	0.00	11.05	0.00	0.00	0.00	0.00	16.96	0.02%
Rocky Area	Rocky Area	Areas with exposed rocks	1041.62	129.22	5.55	87.96	74.75	35.55	64.08	3.34	135.03	5.67	19.74	89.10	88.91	1780.54	2.02%
Sandy Area	Sand Area	Sandy Areas (Inland Sand)	0.00	0.00	0.00	0.00	2.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.56	0.00%
Wetland, Bare land, Rocky Area & Sand Area Sub Total			1084.61	252.85	23.32	327.56	238.99	276.96	75.78	46.36	191.98	9.69	20.52	105.29	323.91	2977.81	3.38%
Water Bodies	Inland Water Bodies	Major Tank	1110.31	237.91	0.00	128.90	0.00	8.20	0.00	4.18	0.00	0.00	0.00	1365.09	313.85	3168.44	3.60%
		Minor Tank	143.59	100.44	91.01	295.35	51.73	123.78	98.00	134.98	93.54	51.65	6.06	22.04	110.78	1322.94	1.50%
		Natural Ponds	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00%
		River	126.54	14.94	0.15	81.25	87.44	28.45	4.58	9.70	23.24	0.00	1.80	17.88	27.99	423.95	0.48%
		Streams	2.47	4.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.85	0.01%
		Irrigation Canals	0.10	11.32	0.00	17.37	0.00	6.37	0.00	7.40	1.44	0.00	0.00	14.31	7.72	66.04	0.07%
		Water Hole/Pathas	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.00%
		Agrowell	0.00	0.01	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.19	0.00	0.00	0.00	0.30	0.00%
	Water Bodies Sub Total		1384.03	369.00	91.32	522.87	139.17	166.81	102.68	156.25	118.22	51.84	7.86	1419.31	460.34	4989.71	5.67%
	Grand Total		29707.28	7420.66	1722.58	9348.32	4440.48	9492.67	3860.69	4015.38	3589.35	2054.10	538.60	4756.89	7109.39	88056.34	100.00%

Source: District Land Use Planning office, Monaragala

According to the above table, the information about land use related to the GNDs selected for rapid assessment is as follows. The total land area of this area is about 88056.4 hectares, of which nearly 69% (61073 hectares) belongs to forest related land use. About 25151 hectares of forested land belongs to the Lunugamvehera Park and the rest of the Yala and Vatahirakanda Nature Reserves which are under the control of wildlife, can be termed as forests owned by the Department of Forest and government owned forests. About 2.55% (2248 ha) of the total land area is home gardens and other built-up areas and 5.38% (2977 ha) can be described as Wetland, Rocky area, Bare land and sandy areas.

About 19.04% (16767 ha) of the total land area can be termed as agricultural land under which Paddy cultivation, Sugarcane cultivation, Chena, Short term crops (Seasonal crops) and Other mixed crops occupy a major place. In addition, Coconut, Mango, Other fruit crops are cultivated on a medium scale and other crops such as Thumba are cultivated on a small scale. It is clear from the above table that when we consider the crops spread over 04 divisional secretariat divisions, it varies from division to division. Paddy, Coconut, Banana and Mango are spread over the 4 divisions and other crops are unique to their respective divisions.

An area of about 5.67% (4989 ha) of the total land area can be termed as water table and this includes main reservoirs, small reservoirs, rivers, streams, irrigation canals and ponds.

6.10. Commercial Cultivation

D.S. Division	G. N. Division	Coconut	Sugarcane	Cinnamon	Banana	Mango	Papaw	Seasonal Crops *	Drumstick	Thumba	Forest Plantation
Buttala	Gonagan Ara	12.29	728.17		3.19	22.30		10.29			7.83
	Rahathangama	69.43	2661.57		245.24	227.23	4.84	122.54			35.63
Kataragama	Kandasurindugama	13.43			4.69	7.19	0.25	2.83			73.30
	Karavile	70.03		14.07	40.96	14.82	2.93	142.44			72.89
	Sella Katharagama	33.10		0.00	26.32	6.85		46.97			18.71
Wellawaya	Kithulkote	47.77	0.09	0.82	40.12	8.76	3.68	257.04		26.71	23.92
	Debaraara	19.80	5.61	0.00	27.27	3.76	7.71	173.06	0.70		12.12
	Mahaaragama	107.50	250.68	1.63	38.35	5.80	6.18	605.70	5.00		12.01
	Uva Kudaoya	39.25	11.96	0.32	207.42	9.28	6.93	445.52			6.24
Thanamalvila	Bodagama	10.00	4.92		19.30	5.57		213.07			24.89
	Kivul Ara	15.56			4.78	6.65		48.23			11.51
	Seenukkuwa	85.37	79.88		91.75	0.64		132.06			0.00
	Sittarama	8.92	17.48		11.60	3.24		66.71		0.23	15.74

Source: District Land Use Planning office, Monaragala

* Maize, Water Melon, Red onion, Vegetable, Green gram, Finger Millet, Capsicum,

Sugarcane and Seasonal crops were identified as large-scale commercial crops. Watermelon, Maize, Red onion, green gram, Finger millet and Capsicum can be named as Seasonal crops. Also, the cultivation of Coconut, Mango and Banana is spreading as commercial crops. In

addition, although not widespread in a large number of GNDs, the cultivation of Cinnamon, Papaya, Drumstick and Thumba is also widespread in some GNDs as commercial crops.

Forest Plantation is widespread as commercial cultivation in all other GNDs except Seenukkuwa GND. is Forest Plantation done here by the Department of Forest as well as through agreements between the farmers and the Department of Forest.

In addition to the entrepreneurs of the district, it was observed that the entrepreneurs of the districts of Ratnapura, Hambantota and Matara are engaged in commercial cultivation in Monaragala district.

6.11. Unused and Underutilized Lands

D.S. Division	G. N. Division	Extent(ha)	
		Unused Lands	Underutilized Lands
Buttala	Rahathangama	0	1457.33
	GonaganAra	0	231.42
Wellawaya	Kithulkote	0	397.13
	Debara Ara	0	300.86
	Uva Kudaoya	50	349.05
	Mahaaragama	0	353.96
Kataragama	Sella kataragama	0	20.22
	Karavile	0	375.60
	Kandasurindugama	10	312.56
Thanamalvila	Bodagama	0	868.69
	Kivul Ara	0	96.46
	Sittarama	0	89.14
	Sinukkuwa	0	35.63

Source: Verified data in the Field & other Institute, District Land Use Planning office, Monaragala

The information about the unused government land was obtained by the Grama Niladari and only from Uvakudaoya and Kadasuridugama GNDs and a total of 60Ha have been reported.

Underutilized land is reported in all the 13 GNDs, of which the highest amount of underutilized land is reported in the 2 GNDs of Rahatangama and Bodagama. The lowest amount of underutilized land is recorded in Sella Kataragama and Sinukkuwa GNDs. The main reason for the existence of underutilized land is that cultivation is done only during the Maha season. The reason for this is that cultivation under rain water can be done only during the Maha season. The lack of water facilities can be identified as the main reason that interrupted the cultivation activities in these areas. If there was a system to store and use the excess water received in the Maha season, the amount of underutilized land could be reduced.

Figure 6.4. Unused and Underutilized Lands

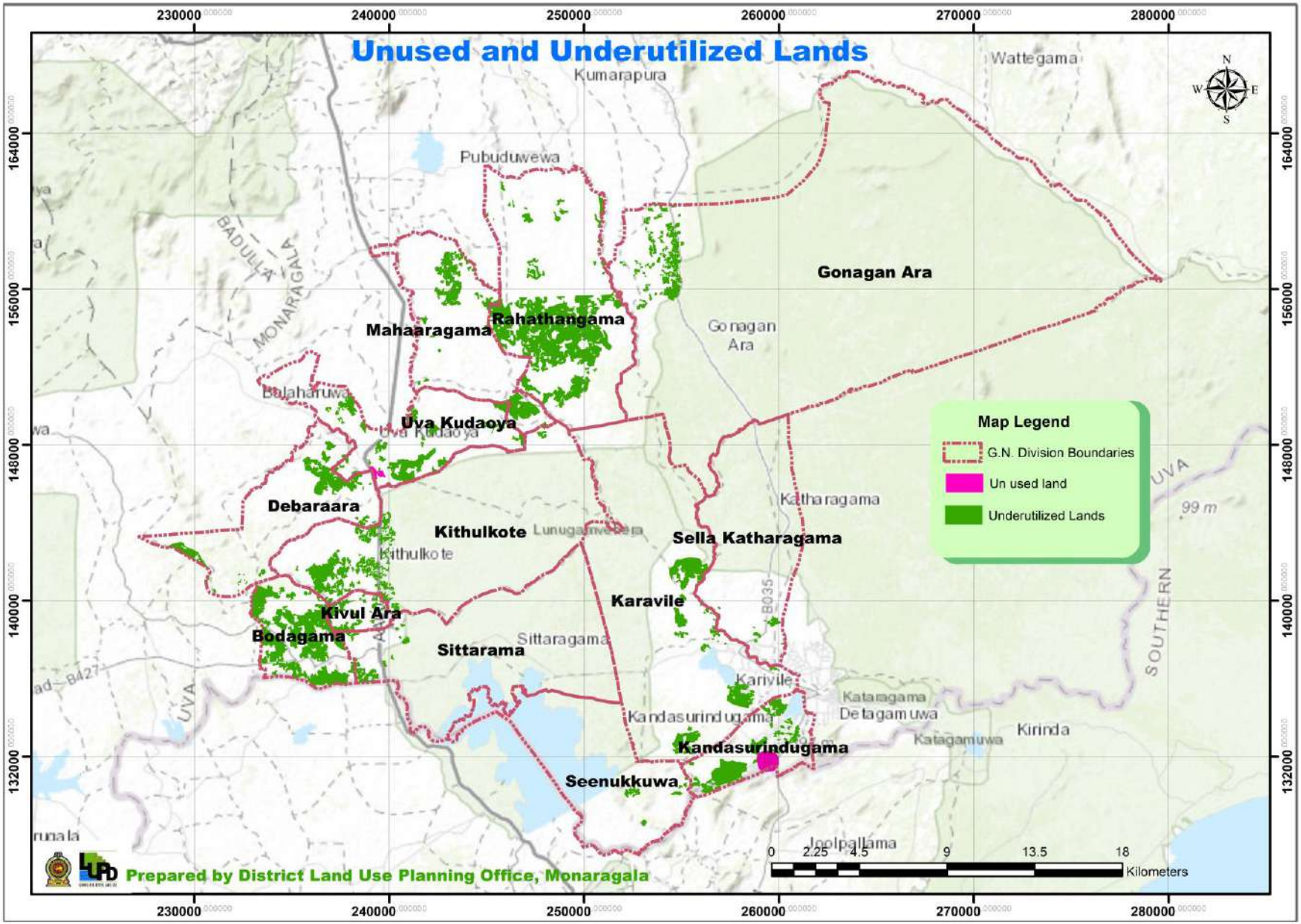
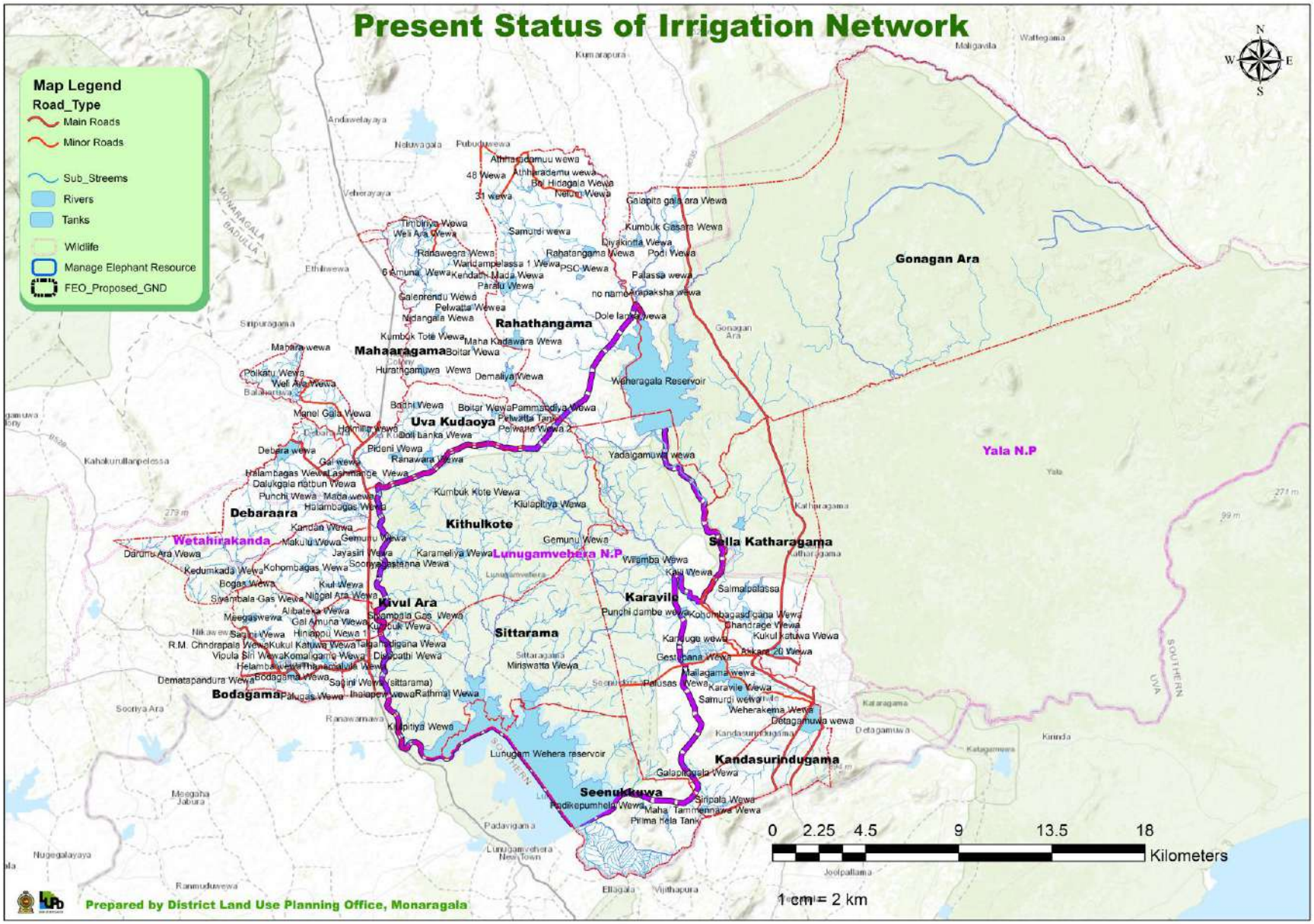


Figure 6.5. Present Status of Irrigation Network



6.12. Present Status of Irrigation Network

D.S. Division	G.N. Division	Name of the Tank	Rehabilitated	Not rehabilitated	Proposed for rehabilitation	Drainage Density	Length of Streams(km)
Kataragama	Sella kataragama	Chandare Wewa	✓	×	Dam & Canal	2.25	110.28
		Gerikatu wewa	✓	×	Dam & Canal		
		Akkaea 20 Wewa	✓	×	Dam & Canal		
		Kohomba digana wewa	✓	×	Dam & Canal		
		Salmal Pelessa Wewa	✓	×	Dam & Canal		
Kataragama	Karavile	Karavile wewa	✓	×	Dam & Canal	2.50	257.81
		Kimbulkema Wewa	×	×	×		
		Samurdhi Wewa	✓	×	Dam & Canal		
		Wehera Kema Wewa	✓	×	Dam & Canal		
		Palugas Wewa	✓	×	Dam & Canal		
		Punchi Dambe wewa	✓	×	Dam & Canal		
		Gestupana Wewa	✓	×	Dam & Canal		
		Maila Gama Wewa	×	×	×		
Kataragama	Kandasurindugama	Siripala Wewa	✓	×	Dam & Canal	2.66	50.73
		Weuwala Wewa	✓	×	Dam & Canal		
		Jayasumana Wewa	✓	×	Dam & Canal		
		Galapitagala Wewa	✓	×	Dam & Canal		
Buttala	Gonagan ara	Galapita ara wewa	×	×	×	2.34	695.19
		Arapassa Wewa	×	×	×		
		Diyakiriththa wewa	×	×	×		
		Kumbukgas Ara Wewa	×	×	×		
		Podi Wewa	×	×	×		
		Palessa Wewa	×	×	×		
		Hirigalpotta Wewa	×	×	×		
Buttala	Rahatangama	Indigas Wewa	×	×	×	2.26	167.57
		Some wewa	×	×	×		
		Medagalayaya Wewa	×	×	×		
		Paralu Wewa	×	×	×		
		Block 10 Wewa	×	×	×		
		Wandama Pelessa 1 Wewa	×	×	×		
		Nelum Wewa	×	×	×		
		Lolugas Wewa	×	×	×		
		Block 10 akkara 2 Wewa	×	×	×		
		Wandama Pelessa 2 Wewa	×	×	×		
		Bambaragala Ara Wewa	×	×	×		
		Bolhindagala Wewa	×	×	×		
		48 Wewa	×	×	×		
		Rahathangama Wewa	×	×	×		
		Bulathgas ara Ihala Wewea	✓	×	×		
		Bulathgas ara pahala Wewea	✓	×	×		
Wellawaya	Kithulkote	Sepala wewa	✓	×	Dam	2.28	215.43
		Kotigale Wewa	✓	×	Full Repair		
		Kiuwl Wewa	✓	×	Canal		

		Jayasirikada Wewa	✓	×	Do excavated		
		Dinna Wewa	✓	×	Dam		
		Makulu Wewa	✓	×	Do excavated		
		Kohombagas Wewa	✓	×	Dam		
Wellawaya	Debara Ara	Debara Ara Wewa	✓	×	Spiel	2.34	90.14
		Daluggala Wewa	✓	×	Full		
		Jayasena Wewa	×	×			
Wellawaya	Uva Kudaoy	Pideni Wewa	✓	×	Do excavated	2.53	90.42
		Weliara Wewa	✓	×	Do excavated		
		Gal Wewa	✓	×	Ralapanawa		
		Ranawara Wewa	✓	×	Canal		
		Manelgala Wewa	×	×	×		
		Boitar Wewa	✓	×	Do excavated		
Wellawaya	Mahaaragama	Demaliya Wewa	✓	×	Dam & Excavation	2.47	98.80
		Thimbiriya Wewa	✓	×	Dam Canal & Excavation		
		Hurathgamuwa Wewa	✓	×	Cannel		
		Galen Renduwa wewa	×	×			
		Kumbukkote Wewa	✓	×	Canal		
		Rathnayake Wewa	✓	×	Dam & Excavation		
		Guneris Wewa	✓	×	Canal		
Thanamalvila	Bodagama	Dematapandura Wewa	×	×	×	2.11	43.71
		Kukulkatuwa Wewa	×	×	×		
		Komaligama Wewa	×	×	×		
		Bogas Wewa	×	×	×		
		Meegas Wewa	×	×	×		
		Bodagama Wewa	×	×	×		
		Helamba Wewa	✓	×	×		
		Sagini Watta Wewa	×	×	×		
Thanamalvila	Kiul Ara	Kiul Wewa	×	×	×	2.00	10.85
		Gal amuna Wewa	×	×	×		
		Indipelessa Wewa	✓	×	Dam		
Thanamalvila	Sittarama	Aluth goda Sagini Wewa	×	×	×	2.32	165.81
		Nelum Wewa	✓	×	Canal		
		Muvan pelessa Wewa	✓	×	Canal		
		Sampath Wewa	✓	×	Canal & sluice		
		Nuge Wewa	×	×	×		
		Siyambala Gas Wewa	×	×	×		
		Kumbuk Wewa	×	×	×		
		Sarwodaya Punchi Wewa	×	×	×		
Thanamalvila	Seenukuwa	Padikepuhela Wewa	×	×	×	1.79	85.65
		Pilima hela Wewa	×	×	×		
		Tammanna Wewa	✓	×	Dam & Canal		

Source: Verified data in the Field & other Institute

Information about tanks in these divisions was obtained through Irrigation and Agricultural Service Centers. The largest number of tanks is located in the Rahatangama GNDs and out of the 17 tanks located in the respective GND of the Kataragama Divisional Secretariat Division, except for 2 tanks, all the tanks are at the level to be reformed. Out of the 23 tanks located in the respective GND of the Buttala Divisional Secretariat Division, all the tanks except 2 tanks are at the level to be reformed. Bambaragalaara Lake located in settlement 14 of Rahatangama domain is being rehabilitated under the Smart Irrigated Agriculture Project (CSIAP).

Out of the 23 tanks located in the respective GNDs of the Wellawaya Divisional Secretariat Division, except for 3 tanks, all the tanks are at the level to be reformed. 4 tanks located in the Kudo Oya GNDs are being rehabilitated under the Smart Irrigated Agriculture Project (CSIAP).

Out of the 23 tanks located in the respective GNDs of the Wellawaya Divisional Secretariat Division, except for 3 tanks, all the remaining tanks are at the level to be reformed. 4 tanks located in the Kuda Oya GNDs are being rehabilitated under the Suhuru Irrigated Agriculture Project. Out of the 22 tanks located in the respective GNDs of the Thanamalwila Divisional Secretariat Division, except for 6 tanks, all the remaining tanks are at the level to be rehabilitated.

Sinking of the bank of the Idipalassa lake has taken place at 2 places. If the bank of the lake breaks, the crops in the lowlands will be damaged and there will be no water for paddy cultivation.

In addition, a large number of lakes are located in these GNDs and information about them has been presented through maps

6.13. Important Socio-economic data

D.S. Division	G.N.Division	Total Population	Number of families	Number of Samurdhi recipient families	Major source of income	Other types of income sources	Number of persons engaged in Tourism	Number of persons benefiting from the National Park	Special remarks
Buttala	Rahathangama	3803	698	473	Agriculture	-	1*	-	*Tourism Hotel
	GonaganAra	2380	740	291	Agriculture	-	-	-	
Wellawaya	Kithulkote	2825	750	516	Agriculture	Government. Private, animal husbandry, Self-Employment	-	-	
	Debara Ara	1511	460	321	Agriculture		-	-	
	Uva Kudaoya	2663	798	475	Agriculture		-	-	
	Mahaaragama	2425	465	329	Agriculture		-	-	
Kataragama	Sella kataragama	2689	696	290	Agri culture Tourism Self-Employment	Tourism Self-Employment	800	0	Food and accommodation facilities (Not for National Park Tourist)
	Karavile	5807	1381	612	Agriculture Tourism Self-Employment	Tourism Self-Employment	200	0	Food and accommodation facilities (Not for National Park Tourist)
	Kandasurindugama	5913	1521	675	Agri culture Tourism Self-Employment	Tourism Self-Employment	180	0	* Food and accommodation facilities (Not for National Park Tourist)
Thanamalvila	Bodagama	2240	727	347	Agriculture		0		
	Kivul Ara	1742	520	254	Agriculture		0		
	Sittarama	3981	1108	378	Agriculture		0		
	Sinukkuwa	2440	737	173	Agriculture		0		

Source: Verified data in the Field & other Institute

Socio-economic information was obtained from the District Senses and Statistics Office, Divisional Secretariat, GNDs Level Officers and the community. Overall, more than half of the total number of families were identified as Samurdhi beneficiaries. Their main source of income is based on agriculture and in Kataragama division there were also people engaged in tourism and self-employment. In addition to agriculture in Wellawaya Division, private and government jobs, animal husbandry and self-employment can be mentioned as another source of income.

A large number of families in Kataragama Divisional Secretariat Division live a lifestyle based on the tourism industry, providing food and lodging facilities to the devotees who come to Kataragama Devalaya.

One person in Rahatangama GNDs of Buttala Divisional Secretariat Division is engaged in a tourism business based on the park and a group of people working there.

There is a significant potential to develop the tourism industry in the vicinity of Lunugamvehera Park and the community stated that it is appropriate to prepare an entrance road to enter the park

from the old Thanamalvila road through Karavila in the Karavila GNDs of Kataragama Divisional Secretariat division. They said that a bird paradise has been created around the Weherakema and Karavila lakes.

The community said that the buffaloes and cows belonging to many people in charge of animal control have been accustomed to a food pattern related to the park and are being brought into the park with and without permission. In this way, their livelihood and economy are linked to the park.

Although there are no gazette ecological conservation or ecological protection areas in the induction zone, there are places where the forest conservation department has taken steps to protect the forested areas with boundary posts and some places have been referred for gazette. For ex.

The forest conservation department has used boundary posts to demarcate Beralihela forest area in Sinukkuwa GNDs.

Boundary posts have been placed around the Kadasuridugama Government Forest in the Kadasuridugama GNDs. It has been forwarded to the Forest Conservation Department for publication in the Gazette.

Elephant corridors which connect Udawalawa and Lunugamwehera National Park in Kivulaara GNDs, is adjacent to the Mahawewa Government Forest belonging to the Department of Forest. This area is a frequent wild elephant raiding zone.

The garbage of the local council is disposed of in the government forest belonging to the forest conservation department of Kadasuridugama GNDs. Therefore, the wild elephants in the jungle come to this place and damage the crops.

Although a pit has been prepared for dumping garbage in the village of Sitthara Boraluwalaya, environmental problems have arisen due to the dumping of garbage on the open land.

Due to the activities related to the existing quarries in Bodhagama GNDs, the accumulation of rock dust in the surrounding fields causes damage to the crops as well as to the environment.

The Demiliya Kudo Oya Proposed Reserve is located in Maha Aragama Kudo Oya GNDs and is an area rich in wildlife.

Figure 6.6. Environmental Sensitive Areas /Protected areas

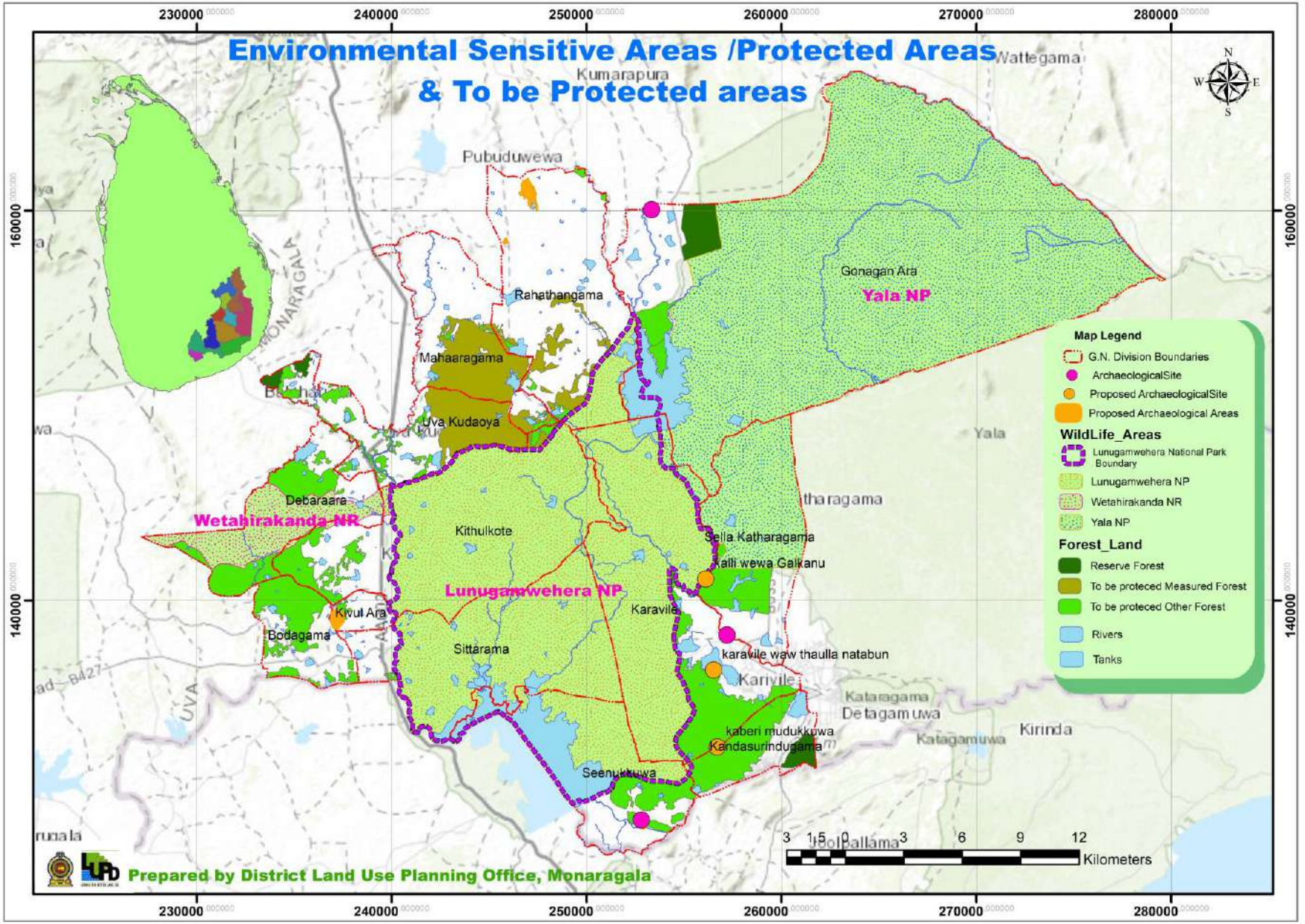


Figure 6.7. Location Map of Different Issues

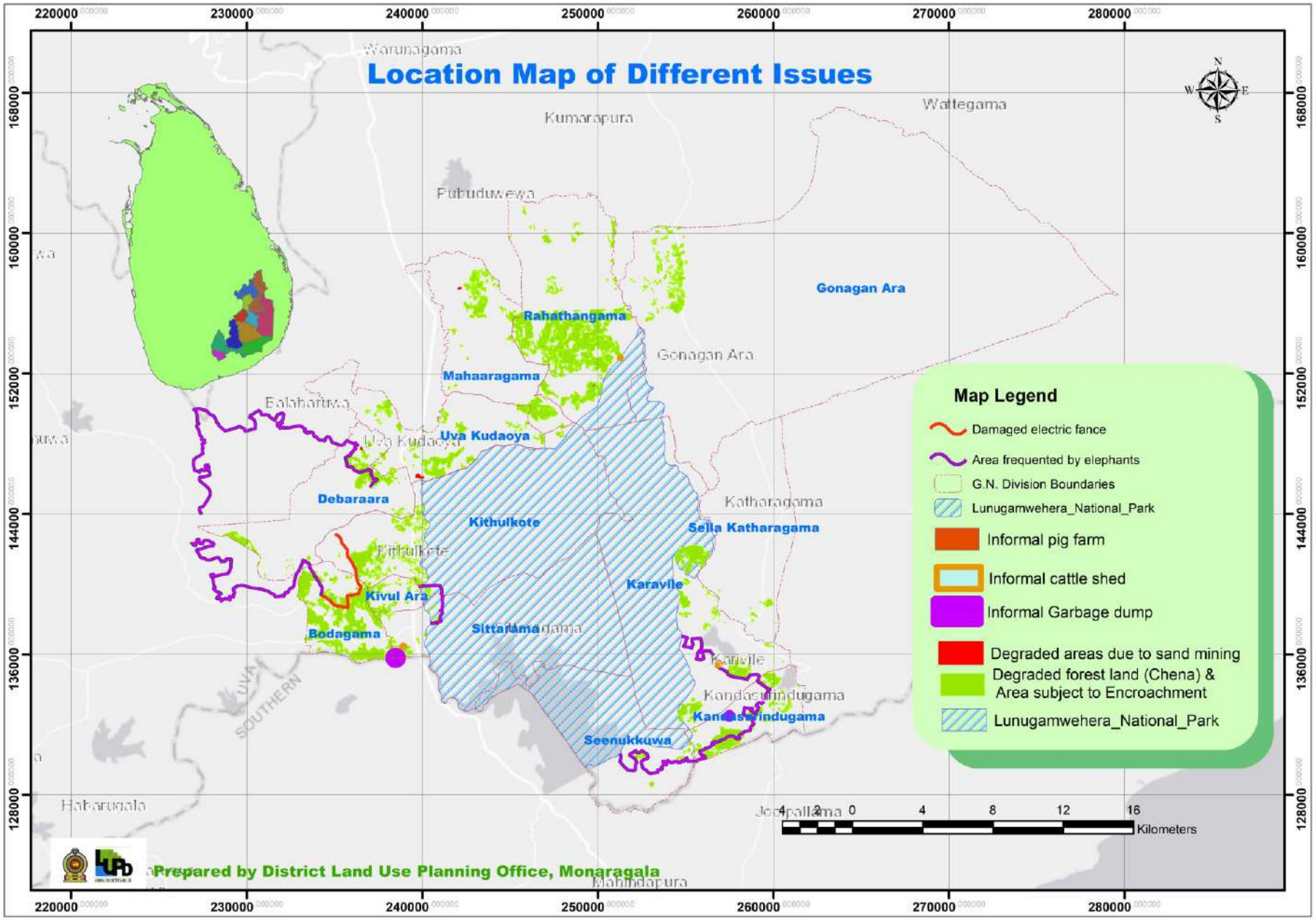


Table 6.11. Prioritization of Grama Niladari Divisions according to selected criteria

No	Proposed Criteria	Method of Assessment	Name of G.N.Division and weights given for each criteria												
			Buttala		Wellawaya				Kataragama			Thanamalvila			
			Rahathangama	GonaganAra	Kithulkote	Debara Ara	Uva Kudaoya	Mahaaragama	Sella kataragama	Karavile	Kandasurindugama	Bodagama	Kivul Ara	Sittarama	Sinukkuwa
1	Percentage of land extent available in the GND	Extent of GNDs within the 1 km buffer (Extent calculation using GIS)	5	10	6	4	4	4	4	6	5	4	4	5	5
2	Percentage of land extent of Lunugamvehera National Park available in the GND	Updated GIS layers (DWC /LUPPD/ Survey Department)	4	3	5	0	2	0	0	5	4	0	1	5	4
3	Human elephant conflicts occurred during past 2 years within the GNDs														
3.1	Number of deaths (during past 2 years)	Secondary data from DWC/ DS, Community discussions	0	1	1	0	2	0	0	0	0	3	0	3	0
	Number of Disabled (during past 2 years)		0	0	0	0	0	0	0	0	0	0	0	0	0
	Number of Injured (during past 2 years)		1	1	0	0	0	0	0	0	0	0	0	0	0
3.2	Damage of houses (each household)	Secondary data from DWC/ DS, Community discussions	45	3	0	0	0	0	0	0	0	21	3	0	60
	Half damage		100	24	0	0	44	4	0	30	2	0	0	6	12
	Minor damage		0	0	10	0	0	0	0	0	0	0	0	0	0
3.3	Elephant fence	Secondary data from DWC/ DS, Community discussions	1	1	1	1	1	1	1	1	1	0	1	1	1
	Under construction		0	0	0	0	2	0	0	0	0	0	2	2	0
	Proposed fence		0	0	0	3	3	0	0	3	3	0		3	3
	None		0	0	0	0	0	0	0	0	0	0	2	0	0
3.4	Frequency of elephants raid on village (per month) > 5 = 3	Secondary data from DWC/ DS, Community discussions	3	3	3	3	3	3	3	3	3	3	3	3	3
	4_3 = 2		0	0	0	0	0	0	0	0	0	0	0	0	0
	<2 = 1		0	0	0	0	0	0	0	0	0	0	0	0	0
3.5	Number of elephants deaths (During past 2	Secondary data from DWC/ DS,	0	0	0	0	0	3	0	0	0	0	0	0	0

	years)	Community discussions													
	4_3		0	2	0	0	0	0	0	2	0	0	0	0	0
	<2		1	1	0	0	0	0	0	0	0	1	0	0	1
3.6	Percentage of crop damaged land extent due to elephant's raid on cultivated lands	Secondary data from DWC/ DS, Community discussions	3	3	3	3	3	3	3	3	3	3	3	3	3
	2_1		0	0	0	0	0	0	0	0	0	0	0	0	0
	<1		0	0	0	0	0	0	0	0	0	0	0	0	0
4	Other animal threats	Secondary data from DS/GN, Community discussions													
	Peacocks		1	1	1	1	1	1	1	1	1	1	1	1	1
	Monkeys		1	0	1	1	1	1	1	1	1	1	1	1	1
	Porcupines		0	0	1	1	1	0	0	0	0	0	0	0	0
	Pigs		0	0	1	0	0	0	0	0	0	0	0	0	0
	Giant squirrels		1	1	1	1	1	1	0	0	0	1	1	1	1
	Snail		0	0	1	0	0	0	0	0	0	0	0	0	0
	Jungle fowl		0	0	0	1	0	0	0	0	0	0	0	0	0
	hornbill		0	0	0	0	1	0	0	0	0	0	0	0	0
	Coconut beetle		0	0	0	0	1	0	0	0	0	0	0	0	0
5	Severity/ magnitude of land degradation														
5.1	Land degradation due to deforestation - High	Field observation + Community discussion	3	0	0	0	0	0	0	3	3	0	0	0	0
	Moderate		0	0	2	2	2	2	2	0	0	2	2	2	2
	Low		0	1	0	0	0	0	0	0	0	0	0	0	0
5.2	Land degradation due to cattle grazing	Field observation + Community discussion	3	0	3	3	3	3	3	0	0	0	0	0	0
	Moderate		0	0	0	0	0	0	0	0	0	2	2	2	2
	Low		0	1	0	0	0	0	0	1	1	0	0		0
5.3	Land degradation due to mining (sand, dolomite etc.)	Field observation + Community discussion	0	0	0	0	0	0	0	0	0	0	0	0	0
	Moderate		0	0	2	2	2	2	0	0	0	0	0	0	0
	Low		1	1	0	0	0	0	1	1	0	1	1	1	1

6	Occurrence of degradation of forest lands	Map Analysis + Discussion with forest and wildlife officers	2	0	2	2	2	2	1	1	1	1	1	0	1
7	Number of poaching incidences reported in one year >5	Secondary data from DWC/ DS/GN, Community discussions	3	3	3	3	3	3	3	3	3	3	3	3	0
	4_3		0	0	0	0	0	0	0	0	0	0	0	0	2
	<3		0	0	0	0	0	0	0	0	0	0	0	0	0
8	Cattle population in the GND >500	Farmer Organizations + Community discussion + Regional vet. Office + information from dept. of Animal production and health, GN	5	0	5	5	5	5	5	5	0	5	5	5	5
	500_200		0	4	0	0	0	0	0	0	4	0	0	0	0
	<200		0	0	0	0	0	0	0	0	0	0	0	0	0
9	Number of families depend on animal husbandry	Community discussion + Regional vet. Office + information from dept. of Animal production and health, GN													
	Poultry farming		1	1	1	1	1	1	1	1	1	1	1	1	1
	Goat farming		1	0	0	1	1	0	0	1	1	0	0	0	0
	Pigs farming		1	0	1	1	0	0	1	0	1	0	0	0	0
	Other (Specify)		0	0	0	0	0	0	0	0	0	0	0	0	0
10	Availability of ESA/EPA areas in the GNDs Complete ESA/EPA	Use of GIS layer from the FD/DWC	0	0	0	0	0	0	0	0	0	0	0	0	0
	Part of ESA/EPA		3	3	3	3	3	3	0	0	0	3	3	3	3
	None		0	0	0	0	0	0	0	0	0	0	0	0	0
11	Availability of grazing lands in the GND	Community discussions + Discussion with GN and other field officers	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Percentage of land extent of Chena in the GND	Community discussions + Discussion with Agri instructor and other relevant officers + Map Analysis	2	1	1	1	1	1	1	1	1	5	2	1	1

13	Percentage of land extent of commercial cultivation in the GND	Community discussions + Discussion with Agri instructor and other relevant officers + Map Analysis	5	1	1	1	3	3	1	1	1	2	2	1	1
14	Any protective/ conservation measures taken to protect/conserve buffer zone and their effectiveness	Discussion with DS, Officers of DWC and Community	4	10	5	1	4	4	4	6	4	1	3	4	4
15	Percentage of extent of underutilized lands	Map analysis using updated land use layer	2	1	1	1	1	1	1	1	1	5	2	1	1
16	Percentage of land extent of encroachment	Discussion with DS, Officers +GN+ Community Discussion	2	1	1	1	2	2	1	1	2	4	2	1	1
17	Number of Archaeological sites in the GND - Available	Community discussions + Discussion with relevant officers + secondary data +GN	2	2	2	0	2	2	0	2	0	0	2	0	2
	None		0	0	0	0	0	0	0	0	0	0	0	0	0
18	Availability of land allocated for the grazing purpose Available	Community discussions + Discussion with Agri instructor and other relevant officers + Map Analysis	0	0	0	0	0	0	0	0	0	0	0	0	0
	None		0	0	0	0	0	0	0	0	0	0	0	0	0
19	Occurrence of migrated cattle in the GND for grazing Available	Discussion with Farmer Organization and community	2	2	2	2	2	2	2	0	2	2	2	0	2
	None		0	0	0	0	0	0	0	0	0			0	
20	Availability of unused lands in GND	Community discussions + Discussion with relevant officers + secondary data +GN + Map Analysis	0	0	0	0	3	0	0	0	3	0	0	0	0

21	Present status of Tanks (Wewa) available in the GND- Working Tank	Community discussions + Discussion with relevant officers + secondary data +GN + Map Analysis	1	1	1	1	1	1	1	1	1	1	1	1	1
	Proposed to be rehabilitated		2	2	2	2	2	2	2	2	2	2	2	2	2
	Abandoned tank		0	0	0	0	0	0	0	0	0	0	0	0	0
22	Percentage of surface water bodies available in the GND	Map Analysis (Use GIS layers of updated water bodies)	6	3	3	2	3	4	2	3	1	3	3	5	1
23	Irrigation canals and stream network available in the GND	Calculate the drainage density of the GND	4	4	5	4	4	4	4	4	4	4	4	4	2
	Total value		221	96	81	58	120	68	49	93	60	85	65	71	130
	Priority ranking		Very High	High	Medium	Medium	High	Medium	Low	High	Medium	Medium	Medium	Medium	High

Source: Verified data in the Field & other Institute

Rapid assessment was carried out by weighting the above-mentioned proposed criteria, and then the marks received related to those determinants were collected and prioritized. According to the above table, the total value of weightings ranged from 49-221. Accordingly, the selected GNDs were ranked into 04 main categories namely Very High, High, Medium & Low.

0 -50 Low
51- 90 Medium
91 -131 High
131< Very High

Table 6.12. Ranking the Grama Niladari Divisions According Priority

	D.S. Division	G. N. Division	Priority ranking
1	Buttala	Rahathangama	Very High
2	Thanamalvila	Sinukkuwa	High
3	Wellawaya	Uva Kudaoya	High
4	Buttala	GonaganAra	High
5	Kataragama	Karavile	High
6	Thanamalvila	Bodagama	Medium
7	Wellawaya	Kithulkote	Medium
8	Thanamalvila	Sittarama	Medium
9	Wellawaya	Mahaaragama	Medium
10	Thanamalvila	Kivul Ara	Medium
11	Kataragama	Kandasurindugama	Medium
12	Wellawaya	Debara Ara	Medium
13	Kataragama	Sella kataragama	Low

Source: Verified data in the Field & other Institute

According to the above classification, Rahatangama GNDs is the GND with the highest priority. Gonaganara, Uvakudaoya, Karavila and Seenukkuwa GNDs can be named as high priority GNDs. Bodagama, Kithulkote, Sittarama, Mahaaragama, Kivullara, Kandasuridugama and Debaraara can be named as medium priority respectively. Sellakataragama GND can be considered as low priority GND.

7. Comments and suggestions submitted by the community to develop Lunugamvehera National Park and surrounding area

Under the leadership of the Divisional Secretary and with the participation of the District Land Use officers, all the officials who are suitable to be involved in this program were invited at the Divisional Secretariat Division level and a full awareness about the program was made for 04 divisions.

After that, discussions were held with the participation of farmer organizations and community leaders for all the 13 Grama Niladari Divisions

Here, more attention was paid to the views and suggestions of the stakeholder institutions as well as the community and they are given below and it is important to pay close attention to it while preparing future plans.

1. The community said that in the areas where there are elephants, it is not active and proper maintenance is not being done. Besides, the entry of cows and buffaloes into the park damages the elephant fence. And elephant fences have not been built across some areas. Therefore, elephants are suggested for the following areas. The community stated that it is necessary to put fences across the following places.

- From started point of Kitulkote Forest Land to End of that forest Land (Wetahirakanda Outside)
- From Ranawara wewa to Demaliya Pathanayaya & from Kuda Oya to Kudaoya bridge
- From Kandasurindu gama to Karavila Wildlife Sub office.
- From Tammennawa Wewa to karavila GN Boundary.
- From Sarwodaya Land to Jeewan Gama.
- From Tammanne Wewa to Pilimahela Village.

2. To reduce the raiding of elephants in farm lands and villages, we create ditches for the necessary places in addition to the elephant enclosure. Also, the agricultural consultant informed that elephants do not travel from the places where the plant named “Gajamadara” is located and it was suggested that a method of popularizing the plant and measuring its practicality should be set up.
3. In addition to elephants, it was stated that the damage to forest by Peacocks, Monkeys and Vaduras are significant, and for this, it can be done successfully by preparing a method of continuous sterilization, the officer representing the Department of Animal Production and Health stated. He said that he has practical experience in that regard.

4. Instead of rearing the cows in the free system, rearing them in a semi-intensive or intensive system. The officials representing the animal production department stated that it is appropriate to provide the necessary land to establish the cultivation of high-grade nutritious grass in order to increase the nutrition of dairy cows, which directly contributes to milk production.
5. Also, efficient use of high-quality cows in the farms and removal of non-contributing animals from the herd.
6. Depletion of water capacity due to siltation of lake bed due to cultivation in lake reserves. A large number of tanks in this area are in need of rehabilitation. The current status of irrigation systems is shown in the table.

   For example, the banks of Bodhagama Idipalassa Lake have sunk in 2 places. Due to this, it was stated that if the dam of the lake is damaged, all the crops in the lowlands may be destroyed.
7. The reason for the abundance of underutilized land is that the people state that due to water scarcity, cultivation activities are carried out only in the Maha season. If a system of water supply is prepared for the cultivation of Yala season, it will undoubtedly be a great relief to the farmers.
8. Large-scale plantations are widespread in these divisions, and by directing the growers to carry out these plantations using modern technology, soil and water conservation methods, the productivity of the land as well as the living conditions of the community related to it are the reasons.
9. Most of the land where cultivation is carried out is land that is being used without permission. By identifying these lands and regularizing them through a proper method, the productivity of the lands will be increased as well as revenue generation for the government.
10. And if the Pilimahela left bank canal is prepared, around 200 acres of paddy fields can be fed.

    Kotidora Lake and Timbiriya Lake are currently in ruins and since these lakes are located inside the proposed Kudo Oya reserve, if they are restored, they can be used for animals during the dry season, so the community says that the raiding of the wild animals will be reduced.
11. Unauthorized cultivation takes place in the buffer zone. It was realized that the people do not have a clear idea about the buffer zone and therefore taking actions to specifically identify and protect the buffer zone and to inform the community about the uses that can be allowed in that zone.

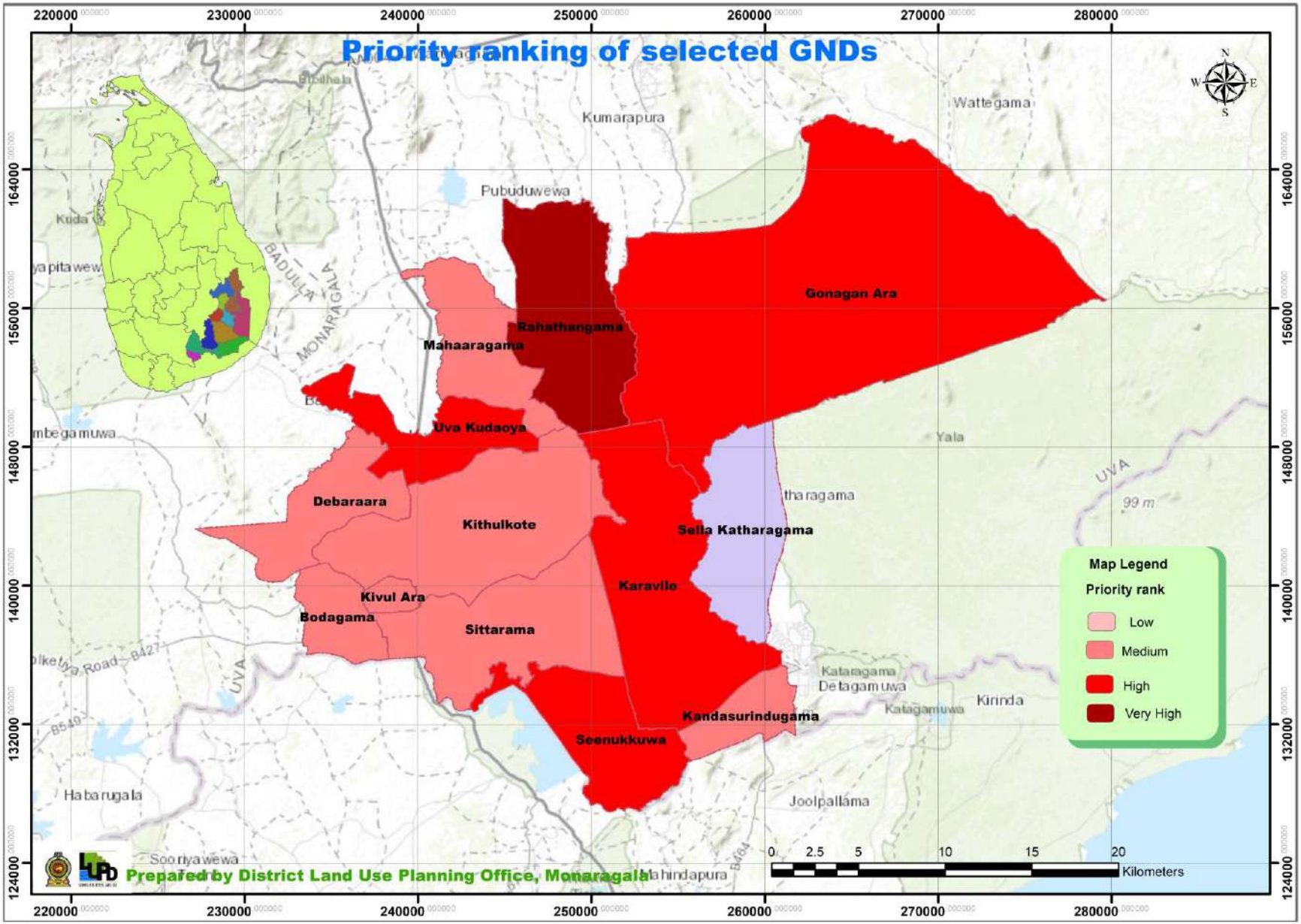
12. A large number of tourists come to Kataragama to visit Kataragama Devalaya. The community expressed that it is appropriate to prepare a gate to enter the park from the old Thanamalvila road through Kataragama to guide those tourists to visit the park. It was stated that a friendly environment for tourists has been created due to the high biodiversity of the lakeside ecological area.
13. It was stated that since the awareness of the tourists coming from other areas about the park is very low, it is appropriate to implement programs using modern technology to raise awareness and it will help to improve the living conditions of the local people.
14. In Sittarama GNDs the village of Boraluwayaya, a garbage disposal pit has been prepared, but without dumping the garbage into the land, an ecologically problematic situation has arisen.

8. Conclusion

By carrying out the rapid assessment, the information regarding the current situation and the economic, social and environmental problems related to the GNDs adjacent to the Lunugamwehera National Park was obtained at the level of the GNDs and by analyzing them, the results shown above can be shown. It is clear that economic, social and environmental issues are interconnected. The problematic situation mentioned above has arisen due to the absence of a planned land use plan.

Prioritization was done after the assessment of the criteria used for this purpose and by preparing and implementing land use management plans based In addition to the results obtained in the preparation of this plan, it is important to pay attention to the opinions and suggestions of the community and stakeholder institutions. On those results, problems can be minimized.

Figure 6.8. Priority ranking of selected GNDs



Annexes

Annexes. 01 - Photos of the discussions with the officers in Buttala Divisional Secretary office

Discussions with the officers in Kataragama Divisional Secretary office

Discussions with the officers in Wellawaya Divisional Secretary office

Annexes 02 -Photos of the discussions with the community

Discussions with the community in Uva Kuda Oya GND

Discussions with the community in Kithulkote GND

Discussions with the community in Maha Aragama GND


Discussions with the community in Debaraara GND


Discussions with the community in Rahathangama GND



Discussions with the community in Sella kataragama GND

Annexes. 03- Photos of the places with different issues

Human-Elephant Conflict in Gonaganara GND


Proposed Archaeological Sites in Rahatangama

Gazetted Archaeological Sites in Gonanganara

Electric Fence in Rahatangama

Electric Fence in Gonaganara

Forest lands that are being degraded due to land clearing for china cultivation in Rahatangama

Eco-Friendly Tourist Places in Rahtangama

Eco-Friendly Tourist Places in Gonaganara

Informal cattle-shed in Rahatangama

Forest lands that are being degraded due to land clearing for chena cultivation in Kandasurindu gama

Pits dug in the tank to collect water in Kandasurindu gama

Electricity supply point for the electric fence in Kandasurindu gama

Garbage disposal Centre in Kandasurindugama and how elephants are coming to eat the garbage

Indigested part of the garbage eaten by the elephants (Kandasurindu gama)

Crop damage done by elephants (Kandasurindugama)

Crop damage by elephants and cattle (Karavila)

Land preparation for Chena cultivation & land degradation in Karavile

Proposed Archeological Sites & illegal treasure hunting (Karavila Kalliwewa kanda)

Houses damaged by the elephants in Gonagan ara & Maha Aragama


Inproper disposal of garbage in Bodagama


Electric fence broken due to not maintaining properly in Kiul Ara


Forest lands that are being degraded due to land clearing for chena cultivation and the illegal electric fence in Seenukkuwa GND

Annexes 04–Photos of Field observations conducted with Head office officers of LUPPD

Field observation & making known the problems arisen

Annexes 05

Team members

i. Conducting field work, coordinating all activities and technical advising - Ms. H.S.U Wanasingha, Assistant Director (District Land Use), Monaragala

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