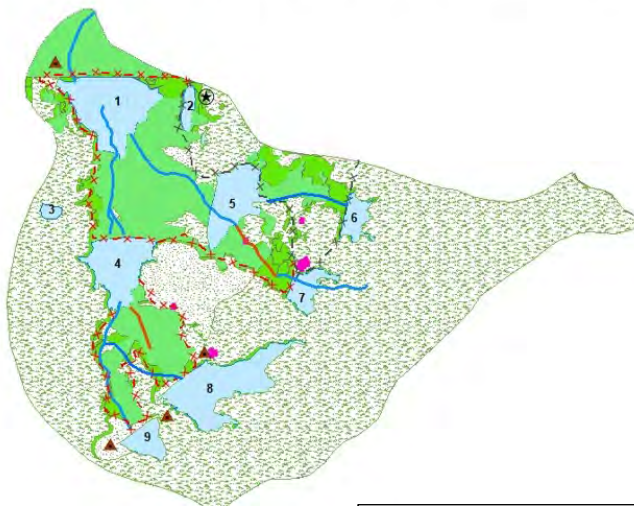




Rambawewa

Cascade Profile & Basic Development Plan

Map showing Irrigation schemes at Rambawewa
cascade in Trincomalee District



Climate Smart Irrigated Agriculture Project (CSIAP)

Yan Oya River Basin
Gomarankadawala DSD
Trincomalee District
Eastern Province

Draft

Rambawewa Cascade Profile (CP) and Basic Cascade Development Plan (CDP)

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Introduction:

Small water storages are recognized as a key invention that facilitated the colonization of the dry zone of Sri Lanka. These small reservoirs are referred to as ‘tanks’. In the dry zone of Sri Lanka, natural or man-made tanks have served for the collection, storage and distribution of rainfall and runoff and provided irrigation water for the cultivation of paddy and OFC for 2000 years. During the two main rainy seasons in April - May and September - December, surface runoff is collected and stored in these tanks and successively distributed during the dry periods to the fields located in the downslope.

The tanks are arranged in a cascade-like fashion along shallow valley courses. They are connected by canals, natural drains and spillways and build a complex system of floodwater harvesting, water storage and water distribution. The tank cascade system (wewa-ellangava in Sinhala or viluneer kulathodar in Tamil) is an ancient Sri Lankan irrigation infrastructure. The system is a network of small tanks draining to large reservoirs that store rainwater and surface runoff for later use.

Besides irrigation, the stored water is used for domestic purposes, desiccated tank beds serve as pasture for the cattle and deposited sediments are used as raw material for brick production. Thus, the tanks have characterized the cultural landscape and have become an identity-generating factor for the rural culture.

The main principle behind the Tank Cascade System is recycling and re-using of water through a network of small to large-scale tanks. The advantage of such system is that excess water flowing from a reservoir along with the water used in its command area is captured by the next downstream reservoir and, thus, put to use again in the command area of the second reservoir. This water is continuously filtered and recycled in subsequent tanks. Tank Cascade Systems buffer the effects of climatic fluctuations and work as a cornerstone in coping with future climate change in the dry zone of Sri Lanka.

The management of Tank Cascade Systems is intimately associated with their sociological setting and the evolution of rural settlements. Therefore, the overall objective of cascade management is to enhance the living standards of rural communities and the environment through the restoration and improvement of the system on a sustainable basis.

The World Bank Funded Climate Smart Irrigated Agriculture Project (CSIAP) implementing under the Ministry of Agriculture has formed Cascade Management Committees consisting of the project beneficiaries, government officers and other community-based organizations in the cascade area. In order to maintain sustainability of the development of the “Climate Smart Irrigated Agriculture Project” by protecting and conserving the cascade system, which is one of the most magnificent creations of the irrigation management. The primary responsibility of the Cascade Management Committees is to bring together all the stakeholders in the cascade and manage all the resources well, and to facilitate that task.

A Cascade Profile is prepared for each Cascade in the province to collect the necessary information to prepare a Cascade Management Plan. Through the Cascade Management Committee, the Cascade Management Plan has been prepared with a participatory approach with the aim of protecting the Cascade and the watershed area.

1.1 Brief introduction to the cascades situated in the area

The hotspot area of Trincomalee District was selected mainly based on the “Yan Oya” river basin. CSIAP selected three cascades in Morewewa and Gomarankadawala DS Divisions linked with Yan Oya River basin for rehabilitation namely; Kadawaththa, Bakmeegama and Rambawewa cascades. Kadawaththa and Bakmeegama are the nearby cascades of Rambawewa. The General information of nearby cascades of Rambawewa cascades are given below in Table – 01.

Table 01: General information of nearby cascades

Details	Name of nearby cascade	
	Kadawaththa	Bakmeegama
Name of District	Trincomalee	Trincomalee
Name of the Divisional Secretariat/s	Morewewa	Gomarankadawala
Name of the river basin	Yan oya	Yan oya
Name of the Agrarian Development Centre/s	Pankulam	Gomarankadawala
Name/s of Grama Niladari Division/s	Panikkettiyawa	Gomarankadawala
Extent of the cascade (ha)	34 km ²	33 km ²
Command area in the cascade (ha)	132	42
Number of Total tanks in cascade	05	03
Number of families living in the command areas of the Cascade	130	55
Number of tanks located within the forest	01	02

The tank cascade system did not exist in Yan oya river basin until the implementation of CSIAP. Tank cascade systems were identified from the Participatory Rural Appraisal (PRA), Hydrology studies, engineering surveys, and Preliminary Investigation Report (PIR) reports during the project period. There were none (9) tanks identified as a cascade and named as “Rambawewa Cascade” according to the consultation with all stakeholders, including farmers and officers. Finally, it was declared as a cascade by Department of Agrarian Development (DAD).

1.2 Rambawewa cascade system

The Rambawewa cascade is situated in two Divisional Secretariat’s administrative Divisions, called Gomarankadawala and Morewewa. There are nine tanks in Rambawewa cascade, out of those four tanks namely; Ralapanawa wewa, Kuda Panikkettiyawa wewa, Maha Panikkettiyawa wewa and Bellankadawala wewa are under Morewewa Divisional Secretariat area. Existing capacity of the Rambawewa cascade is 2,375.4 ac. Ft. and the designed capacity of the cascade is 2,734.7 ac. Ft..

There are two Grama Niladari Divisions in the cascade area, namely Panikkettiyawa and Kanthamalawa. The general information of the Rambawewa cascade is given in Table 2.

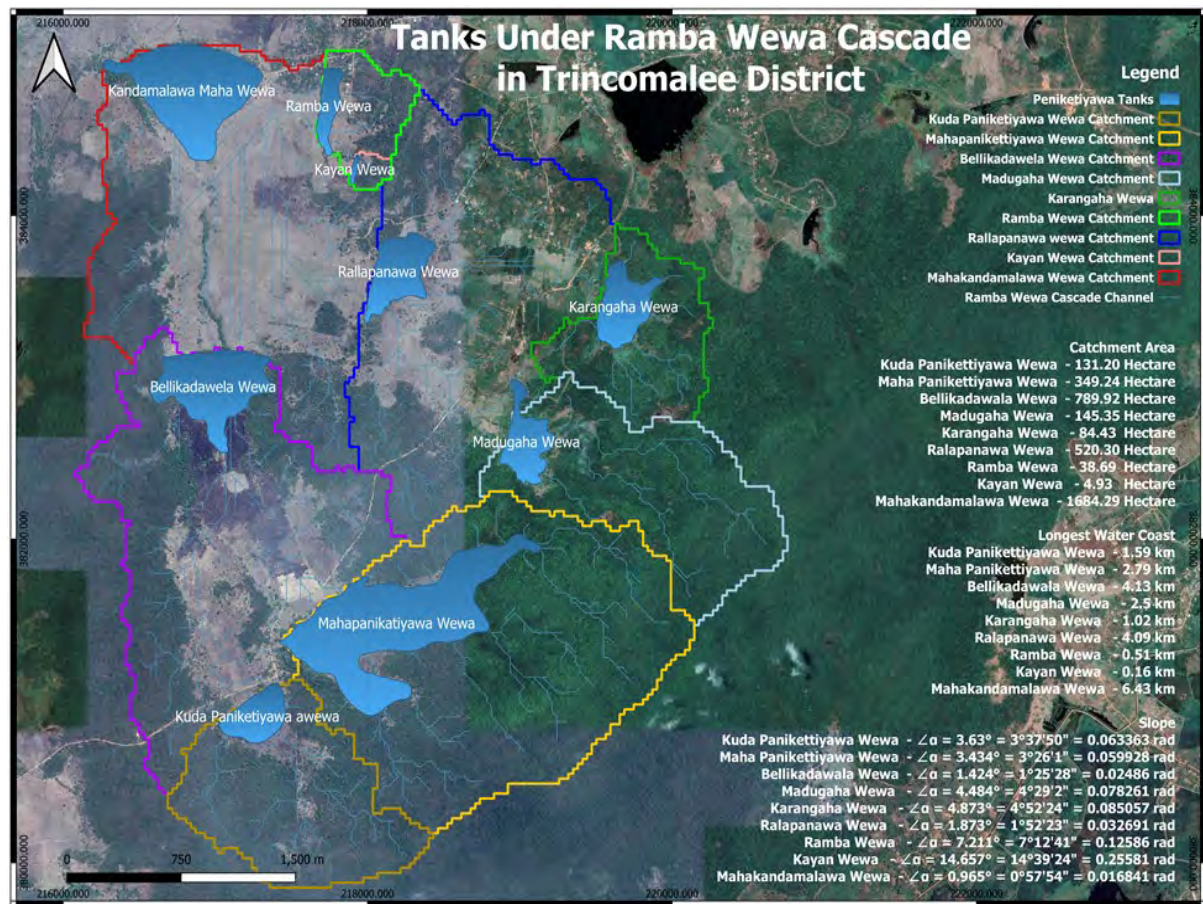
Table 2: The general information of the Rambawewa cascade

Information	Details
Name of the District	Trincomalee
Name of the Divisional Secretariat/s	Gomarankadawala and Morawewa
Name of the electorate	Trincomalee
Name of the river basin	Yan Oya
Name of the Cascade:	Rambewa Cascade
Name of the Agrarian Development Center/s.	Gomarankadawala and Pankulam
Name/s of Grama Niladari Division/s	Panikkettiyawa & Kandamala
Extent of the cascade in hectares	340 ha.
Number of sub watersheds	
Number of clear catchments	4162 acres
Number tanks used for agriculture	09

Restricted forest areas, if any	No
Number of families living in the command area	500
Number of tanks located within the forest	05

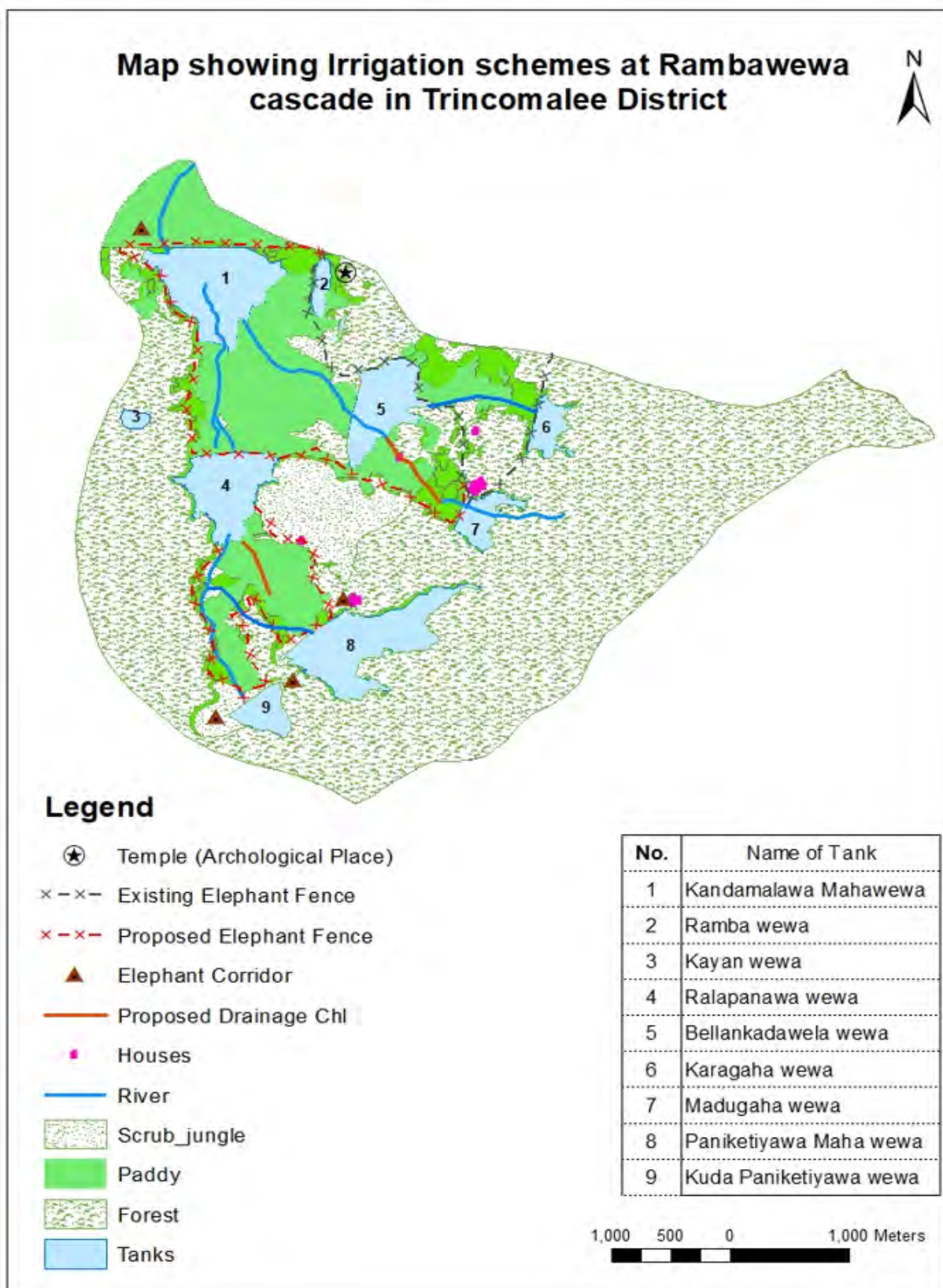
1.2.1 Map of the Rambawewa cascade system

The Rambawewa cascade map is given below;



Map 1: The Cascade Map

Source: Climate Smart Irrigated Agriculture Project



Map 2: Map of the Rambawewa Cascade
Source: Climate Smart Irrigated Agriculture Project

The map no. 1 was developed earlier by the DPD's office CSIAP and that was updated after the transact walk and drawn a latest one (Map no. 2) by the project team.

1.2.2 Information of the small tanks within the cascade system

There are 500 farm families directly benefited by this cascade with 849 ha. of paddy lands. All nine tanks belong to the Department of Agrarian Development. Last three decades there were no rehabilitation activities for the tank development handled by the department because of the inadequate fund allocation.

The details of tank wise GN Divisions, tank capacity, command area and farm family details given in the table 3.

Table 3: Details of Capacity of tanks and Beneficiaries of tanks

No	Tank name	GND	Capacity (Acre feet)	Command area (Hectares)	No of farmer families
1	Kandamalawa maha wewa	Kandamalawa	589	296	200
2	Rambawewa	Kandamalawa	37	35	14
3	Kayan wewa	Panikatiyawa	10	15	30
4	Ralapanawa wewa	Panikatiyawa	288	107	62
5	Bellunkadawala wewa	Panikatiyawa	309	117	70
6	Karangaha wewa	Kandamalawa	217	35	45
7	Madugaha wewa	Kandamalawa	153	70	40
8	Maha panikketiyawa wewa	Panikketiyawa	589	100	19
9	Kuda panikketiyawa wewa	Panikketiyawa	183	74	20
			2,375	849	500

Details of tank coordinates of Rambawewa cascade is given in Table 4

Table 4: Details of tanks and coordinates

No	Tank name	GND	Coordinate	
1	Kandamalawa maha wewa	Kandamalawa	8.672261	80.92117
2	Rambawewa	Kandamalawa	8.668250	80.93524
3	Kayan wewa	Panikatiyawa	8.666059	80.93664
4	Ralapanawa wewa	Panikatiyawa	8.656295	80.93724
5	Bellunkadawala wewa	Panikatiyawa	8.656812	80.93126
6	Karangaha wewa	Kandamalawa	8.659501	80.95118
7	Madugaha wewa	Kandamalawa	8.650719	80.94506
8	Maha panikketiyawa wewa	Panikketiyawa	8.640115	80.93206
9	Kuda panikketiyawa wewa	Panikketiyawa	8.635920	80.92806

1.3. Importance of managing the Rambawewa cascade for its sustainability

The Rambawewa cascade refers to a system of interconnected irrigation channels and downstream water flows that are strategically designed to provide water to agricultural fields and ensure efficient water distribution. This system is often employed in areas where water scarcity is a challenge and where there is a need to optimize water usage for agricultural purposes.

The need for a well-designed cascade profile arises due to several reasons. Firstly, it enables equitable water distribution, ensuring that all agricultural fields within the system receive their required share. By following the natural contours of the land, the cascade profile helps in minimizing water wastage and reduces the risk of waterlogging or erosion.

Secondly, the Rambawewa cascade profile helps manage the gravity-driven flow of water. By constructing the channels and structures at appropriate elevations, the system can take advantage of the natural force of gravity to move water from higher to lower elevations, reducing the need for pumping and energy consumption.

Additionally, the cascade profile allows for the regulation of water flow and storage. By incorporating storage reservoirs at different levels, excess water can be stored during periods of high rainfall or low irrigation demand, ensuring a steady water supply during dry spells.

Overall, the Rambawewa cascade profile plays a vital role in maximizing water conveyance efficiency, minimizing losses, and promoting Climate Smart Agricultural practices in water-scarce regions. It allows for the optimal utilization of available water resources and helps farmers to meet their irrigation needs while minimizing environmental impact.

1.4. Forming of Cascade Management Committees (CMCs) for sustainable management

Small tank cascade systems (STCS) are part of Sri Lanka's hydraulic civilization. These systems interconnected small man-made reservoirs which capture seasonal rainwater for agriculture, household, and environmental purposes are considered the lifeblood of communities in the Dry Zone of Sri Lanka. These time-tested drought and flood mitigation systems are now increasingly being seen as excellent community resilience systems for adaptation to climate change in the Dry Zone of Sri Lanka. Somewhat neglected by the authorities, the systems are now being revived, and restoration of degraded STCS is being recognised as a viable option for adaptation in the National Action Plan for Climate Change Adaptation in Sri Lanka as well as articulated as adaptation actions in the Nationally Determined Contributions (NDCs) under the Paris Agreement. This chapter brings out the unique features of these systems and discusses how the systems have been helpful in addressing drought and flood mitigation historically; in building climate change resilience in small-scale farming communities in the Dry Zone in the present context in; how they were managed over time and what future they hold in climate change adaptation planning in the country.

Role and responsibilities of the cascade management committee

- The committee should take necessary decisions to manage the resources of the cascade with a joint approach of all agencies and beneficiaries of the cascade and follow up the implementation of those decisions and make the necessary corrections accordingly.
- The committee should discuss the maintenance work to be carried out in the cascade by respective farmer organizations.
- It should organize participatory activities of the development programs at the cascade level
- The committee should discuss the outcomes of cultivation committee meetings and issues that can be solved at the cascade level.
- They should plan cultivation, water issues, input supply, training programs, and other production activities and make arrangements for the marketing of products.
- They should bear the overall responsibility of the development and production programs within the cascade and the management of water and associated resources (including ecosystems) in the cascade.
- Through integrated management, ensure drinking, agricultural, livestock, and inland fisheries requirements are equitably met.

- Promote climate-smart agriculture practices and technologies.
- Prepare/ update an agriculture development plan for the entire cascade.
- Facilitate market access to the production from the agriculture plan implementation.
- Facilitate the community to access the weather and agriculture advisories.

During the Participatory Rural Appraisal (PRA) time, number of cascades identified in Eastern Province. Cascade system is new concept of Eastern area. Therefore, the necessity of cascade management committee formation and development of cascade management plan is identified by the CSIA Project. It will be a route map of the future investors and planners as well as the government and non-government officers who are interested to the cascade system development.

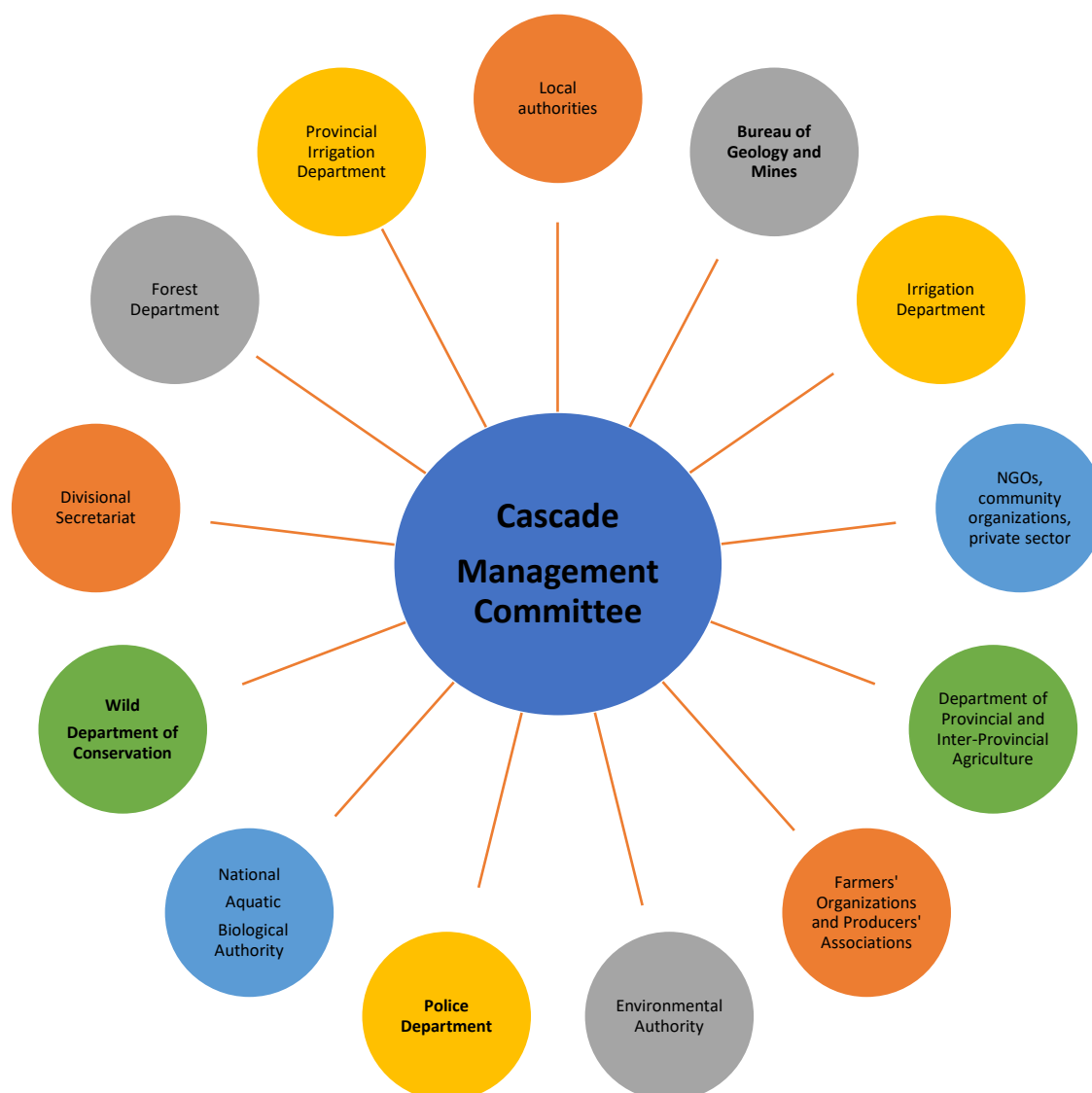


Figure I: Major stakeholder agencies currently involve the CMC

Composition of the cascade management committees

- i. Representative of the Divisional Secretary (DS) - Chairman
- ii. Divisional officer of Department of Agrarian Development (DAD) - Secretary
- iii. Agriculture Instructors (AIs) in the cascade
- iv. Representative of the Department of Irrigation (DOI)
- v. Representative of the Department of Wildlife Conservation (DOWC)
- vi. Representative of the Provincial Irrigation Department (PID)
- vii. Representative of Department of Forest Conservation (DOFC)
- viii. Representative of Geological Survey and Mines Bureau (GS & MB)
- ix. Representative of Water Resources Board (WRB)
- x. Representative of the Local Government Authority (Pradheshiya Saba)
- xi. Representatives of the Grama Niladhari level Committee
- xii. Representatives of Department of Land Use Planning
- xiii. Representatives of NACTA
- xiv. Department of Police
- xv. Representative of Farmer Organizations (FOs)
- xvi. Representative of Community Base Organizations (CBOs) in the cascade

The Co-Chairman of the CMCs must be a representative of the farmer organization.

1.5. Necessity of a Cascade Management Committee

The established of Rambawewa Cascade Management Committee is essential to ensure the coordinated and effective management of a series of interconnected tanks. This committee would oversee critical aspects such as tank maintenance, operational protocols, safety measures, and resource allocation, optimizing the functionality, water sharing, water safety and maintaining ecosystem of the entire cascade system. The appointed CMC concluded the representative from each & every tank for centralizing decision-making and fostering collaboration among relevant stakeholders, the committee would help prevent disruptions, minimize downtime, and enhance the overall efficiency and reliability of the tank cascade

A Cascade secures the surface and ground water level of the catchment area and as a result provides water for domestic and agricultural activities. According to Figure 1, there are public, private stakeholders involving with farmer and other community-based organization's representatives have responsibilities to protect the Cascade. However, as mentioned in section 3, the Cascade has been seriously degraded due to the lack of attention of the stakeholders and natural and human activities. Therefore, a coordinating body like the Cascade Management Committee has become more necessary to take action to protect the Cascade.

- Tanks serve multiple purposes: agriculture, water for livestock, inland fisheries, groundwater recharge, etc.
- Groundwater supports domestic water and upland agriculture, including home gardens.

- Other than agriculture water users, there is hardly any contribution from the other users for the maintenance of the irrigation system.
- The resources are used by other users without any limitation.
- Common resources, such as water and the environment, could not manage individual perspectives.

1.6. Necessity of preparing a profile for Rambawewa Cascade

Preparing a profile for Rambawewa Cascade system is essential as it provides a comprehensive overview of the system's design, components, and operational parameters. This profile serves as a valuable reference for engineers, operators, stakeholders and layman farmers involved in the system's installation, maintenance, and management. By detailing factors such as tank specifications, interconnections, control mechanisms, safety features, critical issues and fluid transfer dynamics, the profile enables a clear understanding of how the cascade system functions and how it fits within the entire command and catchment areas. Ultimately, this profile facilitates effective decision-making, troubleshooting, and optimization, ensuring the tank cascade system operates reliably and efficiently to meet its intended purpose.

The sustainable existence of cascade was established due to the rural institutional structure and socio-economic practices, traditions and customs of the past to maintain the cascade and gradually with the change of these conditions, the cascade system deteriorated and at present it is deteriorating very rapidly. It is very important to identify the current situation and existing problems of the cascade and the critical issues among them in order to restore the cascade systems, prevent resource degradation and manage them properly.

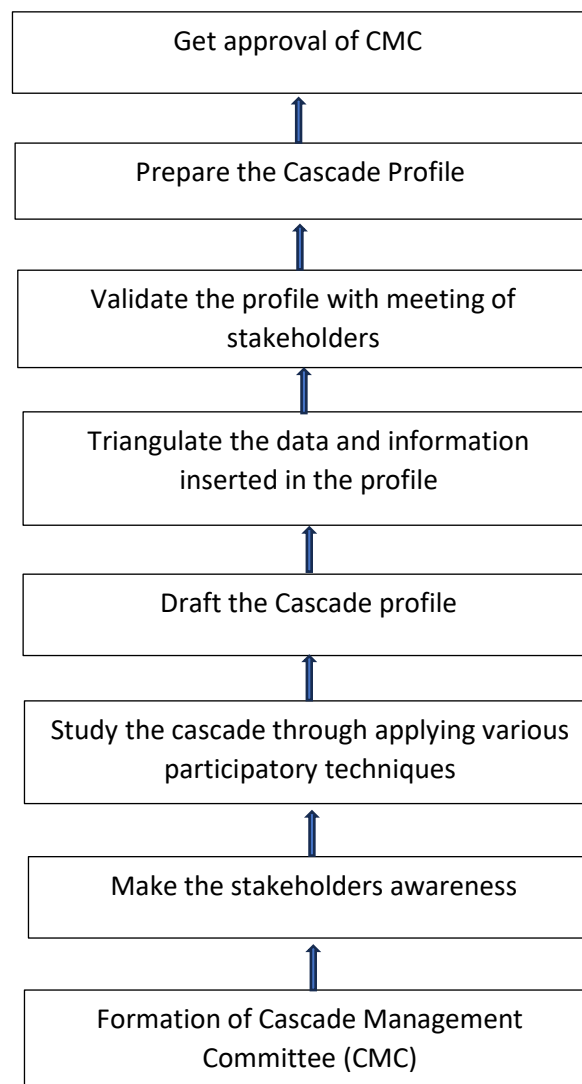
1.7. Preparation of Rambawewa Cascade Profile

Information was obtained from several sources to develop the Cascade profile. Transact walk, secondary data and group discussions were the main, among them as secondary data, information was obtained from the hotspot area agriculture development plan prepared for the hotspot areas of the project, engineering survey, hydrological survey and other statistical information of the Divisional Secretariat, Wildlife and Forest Conservation Department. Apart from this, a transect walk was also conducted with the participation of all stakeholder organizations to generate primary data. In the transect walk, one group travelled from Kudapanikketiyawa tank through Maha Panikketiyawa, Madugaha wewa to Karagaha wewa and the other group from the Bellankadawala wewa through Ralapanawa wewa, kayan wewa, Rambawewa to upper stream Kanthamalawa maha wewa. Information was obtained on 24.05.2023 by 2 groups covering all the main water catchment areas of cascade. Information was collected at 100 by 100 meters of the road and geographical information, geological information, hydrological information, ecological information, socio-economic information about resource degradation and severity of resource degradation were collected through observations and discussions. Beneficiaries, farmer organization members and officials of all government agencies participated in the transect walk and after the walk, a workshop was held with the participation of all the parties involved to further verify the accuracy of the information.

In particular, the information contained in this cascade profile is very important for the preparation of the basic plan for cascade management and will be very helpful for those who study cascade in obtaining information about cascade and planning future development of cascade.

The participatory assessment process is the basic methodology for developing the cascade profile, and appropriate tools were used to identify the bio-physical condition of the cascade area. Focused group discussion, matrix ranking, and transect walk were the main tools. Participants living in the hotspot area and members of Cascade Management Committees (CMCs), members of farmer organizations, and representatives of Government Organizations have participated in this assessment process.

The process of preparation of cascade profile includes the following major activities such as;



The objectives of the cascade profile development and how needful data is to be collected and generated during the interactive and iterative process have been conducted in Focus group discussions. The main intervention was identified and ranked during the discussion.

1.8. Objectives of preparation of a cascade profile and a cascade Management Plan (CMP)

The main objective of the cascade profile is facilitating to learn the cascade status and issues that affect negatively to it, which enables to develop a pragmatic cascade management plan to ensure the sustainability of the cascade and the water productivity of the tank system in the area.

The specific objectives are:

- To identify the water-sharing mechanism of the cascade
- To reduce vulnerability to climate change
- To enhance the restoration of the watershed of the system to enhance biodiversity (Flora & Fauna, Wild animals, etc.) through integrated management
- To address the water scarcity faced by rural communities living in the cascade (addressing the farming, drinking and environmental water requirements of the area)
- To manage water and associated natural resources in a sustainable manner.
- To promote crop zoning programmes and facilitate marketing.
- To enhance the living standards of rural communities on a sustainable basis.

1.9. Importance of preparation of profile and the cascade management plan

A cascade management plan is urgently needed to protect the resources and ensure sustainability of the cascade system. Also, cascade should be managed with an integrated approach through an appropriate institutional structure with the participation of all stakeholders in cascade. For that purpose, a cascade profile and a cascade plan will be prepared to achieve the following objectives.

A detailed Cascade Profile including information on damage to the cascade system mainly due to geographic, hydrological, ecological, cropping patterns and human activities and a map prepared using of Geographical Information System (GIS) for the use of stakeholder organizations and Facilitating stakeholder organizations to save the environment.

Preparation of a basic plan (Cascade Management Plan) that includes the elements of strategic interventions to solve the critical issues and the monitoring system, tentative cost estimates, expected implementation time period and responsible organizations to be involved in the implementation of the plan.

To support policy makers and stakeholders to the identification of the critical issues of the cascade system.

02. Methodology applied in preparation of the Cascade Management Profile and the Basic Cascade Management Plan (CM)

The Climate Smart Agriculture Project, after analysing the current situation of the Rambawewa Cascade, confirmed the need for an institution like the Cascade Management Committee involving all stakeholders to protect the cascade. To achieve this goal, a scientific and participatory cascade management plan is needed as a major task for the cascade management. The Climate Smart Irrigated Agriculture Project also realized that. It helped the Cascade Management Committee to prepare a formal Cascade Profile and Cascade Management Plan. Studying the cascade and collecting secondary and primary data and information, generation of information was a pre requirement for the cascade profile preparation.

Cascade management plan preparation is a multifaceted task that includes field-based activities. For that, before preparing the cascade management plan, cascade profile should be prepared, where participatory and multi-stakeholder methods are used to assess the geological, ecological, hydrological and social aspects of cascade. Data generation, data analysis, report writing, plan preparation and stakeholder validation required multi-skilled personnel. All these tasks were carried out by the Climate Smart Irrigated Agriculture Project officials with guidance of the World Bank staff. For setting up, the Climate Smart Irrigated Agriculture Project and partner institutions have come together and followed the following steps:

- (i) Conduct meetings
- (ii) Collect secondary data
- (iii) Generate primary data using participatory techniques such as transact walk
- (iv) Validate the data
- (v) Developing cascade profile
- (vi) Identifying issues using participatory techniques like problem tree, using participatory techniques like pairwise comparison
- (vii) Identifying critical issues
- (viii) Formulating the cascade plan
- (ix) Validating the correctness of the cascade management plan with stakeholder participation
- (x) Identifying proposed strategic interventions and key activities to address or mitigate the critical issues in a special meeting of the Cascade Management Committee and preparation of tentative estimates for the implementation of the proposed strategic interventions and implementation periods divided into short term, medium term and long term have been included in the cascade management plan so that the cascade management committee can easily implement them.

03. Details of the current profile of the Rambawewa cascade

3.1. Details of geographical aspect

Topographically, the cascade is consisted with undulating terrains, and flat to nearly flat areas including coastal plains and natural flood plains.

The most widely distributed soil group is alluvial soils especially in the Mahaweli delta and on the flood plain. The radish brown earths are really as abundant. This soil group contains red – brown soil with low humic clay, solodized solonates and non – calcic brown soils. Low humic clay is most widespread on the undulating terrain.

The mean annual temperature is 28.5 degrees Celsius. Average monthly temperatures vary by 4.5 degrees Celsius. This indicates that the continentality type is hyper oceanic, subtype truly hyper oceanic. Total annual average precipitation is 1569 mm.

3.2. Details of Geological aspect

By virtue of its geographical location this division receives major portion of annual Rainfall during the period of North East Monsoon. The occasional rainfall experienced during South West Monsoon is not at all adequate to meet crop water demand and hence leads to regular crop damages during yala season. According to Agro Ecological Map compiled by Natural Resource Management Centre of the Department of Agriculture, entire division falls within Low Country Dry Zone (DL), covering 05 Agro Ecological Regions (AER), each with its unique climatic characteristics however, all of which with total annual rainfall of less than 1750mm.

The geographical setting of DL1d agro ecological region is such (adjacent to sea coast) that low rainfall during first inter monsoon period resulting from weak convective activities is the main reason for weak yala rains (Punyawardane). DL1e agro ecological region too follows the same rainfall pattern of distribution but because of its location towards the inland, away from the coastal belt receives a little more rain during first inter monsoonal periods, but not at all adequate for successful yala cultivation

3.3. Details of hydrological aspect

Direct rainfall, Water collected in minor tank cascade systems by rainfall and what is available from Yan oya scheme are supposed as main sources of water supply in this area. Livelihood of village communities entirely dependent upon water availability from the Yan oya river basin

The Rambawewa cascade faces several hydrological concerns and issues. The following hydrological issues were observed during the Focus group discussion and transect walk.

The proposed cascade experiences significant water scarcity due to limited water resources and irregular rainfall patterns. The region relies heavily on monsoon rains, and any deviation from normal precipitation levels can lead to water shortages, especially during the dry season.

The excessive extraction of groundwater for agriculture, domestic and industrial purposes has resulted in the depletion of the groundwater level in the area. Overexploitation of groundwater can lead to saltwater intrusion, making the water unfit for consumption and irrigation.

Pollution from agricultural runoff and inadequate wastewater treatment poses a significant threat to the water quality in the cascade area. Contamination of surface water and groundwater sources negatively affects human health and the ecosystem.

Limited infrastructure for water storage and distribution hampers effective water management in the area. Insufficient river paths, irrigation systems, and canals lead to inefficient water management, hindering agricultural productivity and economic development.

Hydrological Character	Current Status
Mahawewa or Pahala wewa , which is situated in the village for using water for agriculture activities.	Observed all nine tanks in the villages are using for agriculture activities, those tanks are being under reconstruction works in CSIA Project.
Kuluwewa (forest tank) constructed in the upper catchment to capture rain water, provide water for animals and filter debris and silt.	Kuda Panikketiyawa wewa and Madugaha wewa are situated in upper catchment area and capture rain water but paddy lands are available under these tanks.
Kayan wewa built in degraded or cleared upper catchment to trap sediments and control salinity.	Bellankadawala wewa and Ralappanawa wewa are functioning as Kayan wewa in this cascade
Olagam wewa situated closed to village and provide water for seasonal cultivation	Kayan wewa, Rambawewa, Karangaha wewa and Kandamalawa maha wewa are situated closed to villages.
Goda wala (Water hole): constructed for the trapping and deposition of silt, to avoid siltation and sedimentation of the main village tank.	NA
Ihala Wewa (Storage tank): constructed for the storage of water, and is associated with paddy cultivation and other community activities.	Kandamalawa Maha wewa is the storage tank of water and this tank was selected for rehabilitation under CSIAP, construction activities are ongoing

The amount of water received by the tanks of Rambawewa cascade is shown in table 5.

Table 5. Details of Monthly wise water inflow to the tanks

		(Acre feet)											
No	Tank name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Kandamalawa maha wewa	124.6	73.5	47.2	97.5	73.3	10.2	32.7	63.5	107.6	175.7	248.9	250.5
2	Rambawewa	12.5	7.4	4.7	9.8	7.4	1.0	3.3	6.4	10.8	17.7	25.1	25.2
3	Kayan wewa	1.8	1.1	0.7	1.4	1.1	0.1	0.5	0.9	1.6	2.6	3.7	3.7
4	Ralapanawa wewa	108.0	63.6	40.8	84.4	63.5	8.8	28.3	55.0	93.2	152.2	215.6	217.0
5	Bellunkadawala wewa	115.0	67.8	43.5	89.9	67.7	9.4	30.2	58.6	99.2	162.1	229.6	231.2
6	Karangaha wewa	31.4	18.5	11.9	24.5	18.5	2.6	8.2	16.0	27.1	44.2	62.6	63.1
7	Madugaha wewa	54.0	31.8	20.4	42.2	31.8	4.4	14.2	27.5	46.6	76.1	107.9	108.6
8	Maha panikketiyawa wewa	129.8	76.5	49.1	101.5	76.4	10.6	34.1	66.1	112.0	182.9	259.1	260.9
9	Kuda panikketiyawa wewa	48.8	28.7	18.4	38.1	28.7	4.0	12.8	24.8	42.1	68.7	97.4	98.0

The traditional village cascade system was damaged, because of that there is soil erosion, silt deposits in tanks, erosion in tank bunds and salinity in paddy fields are increased in the cascade area.

3.4. Details of Environmental aspect

The effects of climate change, such as rising temperatures and variation of precipitation patterns, further exacerbate hydrological concerns in the cascade system. Erratic rainfall, increased frequency of droughts and intense storms, and sea-level rise pose additional challenges for water resource management and planning.

Addressing these concerns and issues requires a comprehensive approach that includes improved water governance, sustainable water management practices, investment in infrastructure development, and initiatives to promote water conservation and pollution control. It is crucial to prioritize long-term solutions that ensure water availability, quality, and resilience in the Siththan Odai cascade.

There are dense forests in the water catchment areas, there is no soil erosion and silt deposition in the tank is also at a minimum level. It is seen that some of the villagers get the wood required for building houses from these forests. Wood cutting in the forest is not found. Also, earth cutting and sand mining activities are not done in this area. There are several archaeological sites but there is no information that it has been damaged. No rock fragments of any kind were found in this cascade area. no sandbags or temporary embankments have been constructed at the tank sites. The bird species in the forest live safely.

Wild animals have become a major problem in these cultivated areas and inhabited areas. 32 Km of wild elephant fence has been constructed. Local residents say that this is very weak. It is said that due to the poor condition of this fence, elephants often break the fence and enter the residential areas and damage the paddy field and some properties also. In the last six months, 07 human deaths and 02 elephant deaths have been reported. In addition to this, crops are damaged by monkeys, squirrels, woodpeckers, peacocks and wasps.

There are opinions that wild elephants from other parts of the island are brought to the forest area located in Horawapatana area and those elephants invade these areas. Farmers say that the elephant population has increased by 300% for last 10 years.

Some farmers have erected temporary elephant fences and said they often break down the fences and damage the paddy field because they are less strong. There is a need to build permanent elephant fences for paddy fields. Within the enclosure of the Karakaga Wewa Tank Bund, there are permanent elephant fences; rehabilitation activities can be carried out with the help of the department of forests and wildlife.

Environmental aspect focusing on current status of the environment in the Cascade. Ecological services and their values will assess whilst gaining an in-depth understanding of forests and biodiversity in the cascade and its surroundings. Special consideration given to border areas between protected and sensitive areas.

Major terrestrial vegetation/habitat types

1. Vegetation

Dry mixed evergreen forests are the most extensive type of forests and are found in the dry zone. They are characterized by monsoon forests and thorn scrub lands.

These forests are dominated by Palu (*Manilkara hexandra*) (Sinhala – Palu), Satin (*Chloroxylon sweitenia*) (Sinhala – Burutha), *Drypetes sepiaria*, *Feronia limonia*, *Vitex altissima*, *Syzygium spp.*, *Drypetes sepiaria* and *Chukrasia tabularis*.

2. Protected / Sensitive areas

The Kudapanikatiyawa tank bund is situated next to a Hindu temple, and in accordance with guidelines for Environmental and Social Management Plan (ESMP), tank rehabilitation will be carried without causing any damage.

The Madugahawewa tank bund is about 400 meters away from one public residence, and tank rehabilitation will be done without causing any damage in accordance with the Environmental and Social Management Plan (ESMP) criteria.

There is a permanent elephant fence in the tank bund, and rehabilitation work will be done with the approval of the forest department and the wildlife department.

Archaeology site – Archaeology site observed in kayan wewa, with help of Archaeology department support to be carryout rehabilitation works

Bathing sites - There are two bathing areas at the Karagaha Wewa tank. Other tanks not having even a bathing spot.

3. Effects on Flora and Fauna

Several species of flora & fauna are observed on or around the cascade during the transect walk especially foreign birds observed in Bellankadawala wewa.

Due consideration should be given to carefully clearing of vegetation avoiding destruction of habitats of fauna. The removed vegetation matter shall immediately be disposed of to pre-decided disposal sites.

The contractor will take reasonable precaution to prevent workmen or any other persons from removing and damaging any flora (plant/vegetation) and fauna (animal) including fishing in any water body and hunting of any animal.

4. Safety from wildlife

The contractor will educate his staff about possible attacks from wildlife such as elephants and snakes. Protocols to be adopted should be shared with all workers.

Strict instructions and monitoring to be done on worker activities after 6 pm, they should not roam into the wild. Workers should not work in isolation at any time within the project site.

PPEs are essential in land clearing as snakes are present.

If any wild animal is found near the construction site at any point of time, will report to the nearby Forest Department /Department of Wild Life Conservation (range office or divisional office) and will take appropriate steps/ measures, if required in consultation with the forest officials.

5. **Health hazard:** Health hazards could be anticipated in terms of injuries due to rehabilitation activities, including the usage of heavy machinery. However, such incidents can be avoided with proper precautions and exercises for wearing Personal Protective Equipment (PPE) in health & safety aspects.

All workers will be provided with necessary PPEs (basic should include safety helmet, protective footwear, and high visibility jackets). Any visitors to the worksite also need to be provided with PPE. Gloves, ear muffs, goggles, dust masks, safety harness and any other equipment considered necessary should be maintained in stock at the site office.

6. **Trees in the catchment area:** There are number of trees observed in the catchment areas of Ralappanawa wewa.

No animals or plants of any nature shall be removed under any circumstances from the project site or surrounding areas without the consent from the Forest Department.

To remove the trees, the Engineer together with the relevant officers shall be informed in advance to verify and report on the technical justification for the trees that will be required to be removed and the lack of technical alternatives

7. **Declines of forest area:** A gradual forest declines observed in Karangawewa and Madugaha wewa.

8. **Siltation:** There is significant siltation was observed in this cascade area. The rehabilitation of the cascade system will mitigate these impacts.
9. **Encroachment:** Encroachment identified in the Karangawewa and Madugaha wewa.
10. **Soil erosion sites:** In the cascade areas, there are no places of soil erosion.

3.5. Details of Human livelihood activities occurring within the cascade

People enter the forest to extract honey. Although people go in to pick fruits like palu, weera, galziambala, they said that the fruits are less this season and these seem to be eaten mostly by birds. Fresh water fishing in the tanks is done by the community living in the village and around 05 family's livelihood depend on this. There are no water plants like lotus, lily, etc. in these tanks and they are found only in the Bellankadawala tank.

3.6. Details of the socio-economic aspect

Table 6: Details of vulnerable families in the Rambawewa cascade

Name of the GND	Total Number of Families	Total Number of Farm Families	Total Number of Vulnerable families			
			Woman headed	Elders	Samurdhi	Disable
Kandamalawa	416	360	79	16	182	06
Pannikettiyawa	722	657	15	05	246	08

Table 7: Details of FOs functioning in the Rambawewa Cascade

Tank	CBO Name
Kayan wewa	'Nelum' Farmer Organization
Ralapanawa wewa	
Bellikadawala	
Karankaha wewa	'Gemunu' Farmer Organization
Madugaha wewa	
Ramba wewa	'Parakkum' Farmer Organization
Kuda Panketiyawa wewa	
Maha Panikatiyawa wewa	'Parakkrama' Farmer Organization
Maha Kandamalawa wewa	'Mahasen' Farmer Organization

Table 8: Details of Farm families and others

GN Division	GN number	No of Villages	Total Families	Farm families	Fishing families	Women Headed families	Widows
Kandamalawa	232/B	4	416	360	10	79	70
Paniketiya	230	4	722	657	31	102	93

3.7. Details of construction activities within the cascade system

Last thirty years there was no rehabilitation activities in the cascade tank's upstream and downstream, only few maintenance works done by the DAD.

It is observed that, there is a foreign funded grant project “ Wewagam pubuthu” is ongoing in the DS Divisions of Gomarankadawala and Morewewa. Most of the project activities are same like CSIA Project. But that project is covering another two cascades.

Government supported homeless people for the construction of houses in this area through Divisional Secretariats.

A water filter machine was installed in the Madugaha tank for filtering of water for drinking purposes of Kanthamalawa GN Division beneficiaries. And also, there are water filter machines in Gomarankada and Athabedivewa area.

Table 9: Constructions activities under implementation of CSIAP

Nos	Ramba Wewa Cascade Tanks	Work Details	Civil Cost (Rs.Mn.)
1	Kuda Peniketiya Wewa	Improvement Tank Bund,Spill, ,Bathing Steps,Improvements to Spill tail channe, RB Main Channel, RB Branch Channel ,Agro internal road	43.99
2	Ramba Wewa	Improvement Tank Bund,Spill,Sluice Repair,Construction of Sluice ,Bathing Steps, Construction of Access Steps ,LB 1MC Channel,LB 2 MC Channel,MC S1Channel ,Agro internal road	96.2
3	Madugaha Wewa	Improvement Tank Bund,New Spill,Construction of Sluice ,Bathing Steps, Construction of Access Steps ,Main Channel ,Agro internal road ,Construction of 600mm Drop Structure at 0 +840m Construction of New Culvert 0+ 002 m	
4	Ralapanawa Wewa	Improvement Tank Bund,Spill,Sluice Repair,Construction of Sluice ,Bathing Steps, Construction of Access Steps ,LB Channel,RB Channel,FC Channel ,Agro internal road	60.29
5	Kayan wewa	Improvement Tank Bund,Spill,Sluice-LB,RB,LB Channel,RB Channel	93.9
6	Karangaha Wewa	Improvement Tank Bund,Spill,AB Linning Channel,AB Earth Channel,Agro internal road	
7	Bellikadawewa Wewa	Improvement Tank Bund,Spill,Sluice LB,Sluice RB,LB Channel,RB Channel,Agro internal road	
8	Kandamalawa Maha Wewa	Improvements to L.B Main Channel from 0+000m to 1+286.3m Improvements to Fedeed Channel at 0+150m of LB Main Channel Improvements to Fedeed Channel at 0+280m of LB Main Channel Improvements to Fedeed Channel of LB Main Channel Improvements to R.B Main Channel from 0+000m to 0+575m Improvements to Fedeed Channel at 0+104m of RB Main Channel Improvements to LB Farm Road from 0+000m to 0+675m	40.34
9	Paniketiyawa Maha wewa	Improvement Tank Bund,Spill,Bathing Steps,Improvements to Spill tail channel	37.45

3.8. Details of crop pattern within the cascade system

During the transact walk, the cropping pattern of the area also discussed with the farmer leaders. It was found that farmers are cultivating paddy under all nine tanks in the cascade for a long time historically and it is being continued as it is. The soil type is more suitable for paddy as it is regosol soil type which is only suitable for paddy.

Farmers cannot change cropping pattern other than paddy. Because soil contents more clay percentages. At the same time water is only sufficient to paddy cultivation. And also continues ploughing done by tractor in the paddy field for over the long period the paddy field develop hard pan and hence it is only suitable for paddy and not for other crops.

Any how “Pannikettiyawa” tank have some beneficiaries surrounded by the tank 5-7 families having high land crops. The crop consists of fruit tree like mango, pomegranate and banana which are perennial and they do cultivate vegetable cultivation during season too.

In this cascade cropping paddy of tank panikettiyawa people life is little change because they cultivate both paddy and other field crops. They pump water from the common well. This well actually fed by “Panikkettiyawa tank because when water level reduce water is re -charged to the well by tank. So cropping pattern of panikettiyawa farmers is better for sustainable livelihood.

Throughout this Ellanga system, red clay loam occurs and Tiruvana rocks are encountered in the Madugaha tank area. A large number of trees are located in the catchment area. These forest areas belong to the forest department. There are no settlements located near the tanks of kuda panikketiyawa tank, Maha panikketiyawa tank, Bellankadawala tank, Ralapanawa tank and Kayan wewa

About 15 Tamil families have settled in the village of this Maha panikketiyawa weva 40 years ago and they have the right to this land. Due to war conflicts, they have left the area and migrated to foreign countries and other parts of the island. Some of these lands were sold to the settlers and some were cultivated by others under lease schemes. There are no migrant farmers in these areas. Also, a school has been functioning in this village since then. Currently they are not found. There are about 03 abandoned wells.

The tank water is mainly used for paddy cultivation and during the maha season, the entire area is cultivated. During the yala season, as per the water availability 25% – 40 % of the paddy lands only cultivated.

The catchment areas are mainly irrigated by the North-East Monsoon during September to late January. Apart from this, the catchment area belonging to Madugaha tank is mountainous and has very few springs.

The feeding area of cascade is 1199 ac whereas Yala is being cultivated 365 ac and 834 ac during Maha. Any how after rehabilitation it is targeted to cultivate 1519 ac paddy crop and

135 ac of other field crops like Maize, cowpea, green gram, black gram and groundnut. There are around 500 families are getting benefited from this cascade.

In the cascade system the name of the tanks and Farm families benefitted under each tank, cultivable area now and proposed cultivable area after rehabilitation is shown separately for Maha and Yala in the table.

Table 10: Tank wise cultivation area before and after rehabilitation of tanks

No	Name of Tank	No of Farm families	Cultivation area before (Acres)		Cultivation area After (Acres)		
			Yala	Maha	Yala	Maha	OFC
1	Kayan wewa	30	0	0	0	10	5
2	Ramba wewa	14	0	35	8	35	15
3	Karangaha Wewa	45	10	35	35	35	5
4	Madugaha Wewa	40	20	70	70	70	5
5	Ralapanawa Wewa	62	70	107	107	107	20
6	Maha Panikettiyawa Wewa	19	50	100	100	100	25
7	Kuda Panikettiyawa Wewa	20	35	74	60	74	10
8	Bellikadawala Wewa	70	60	117	100	117	20
9	Mahakandamalawa Wewa	200	120	296	195	296	30
	Total	500	365	834	675	844	135

This cascade includes roughly 40 % the forest area and 60 % of the areas are under cultivation. As a annual crop Mango, Coconut tree are cultivated. Anyhow we can see banana cultivation here and there which can be expanded through out of the year.

It is also observed that more density of rainfall received during Maha compare to Yala. The cropping pattern is coupled with livelihood of the people because when Maha or cultivation begins, they cultivate paddy and other field crops. But in between the main season (Yala and Maha) inter seasonal cultivation done with other field crops. In addition, seed production also done with cowpea, green gram. Vegetable like brinjal, Bandakka, bitter gourd and snake gourd also cultivated for their livelihood purpose.

The Home Garden is practised by all farm families in almost all area. The home garden is basic livelihood where they get their day-to-day expenses and nutritional requirement.

3.9. Details of irrigation management within the cascade system

The total production of water (Total water storage of tanks) of this Ramba wewa cascade system is not enough to cultivate all the land in Yala seasons. Around 30% of land are being cultivating in Yala season. The person called Velvedanai, who nominated by the farmers organisation is the responsible person for suppling water to the paddy land. Each of tank has one Velvedanai for this water management purposes. Water supplied to the paddyland ones 10 – 15 days intervals. There is no flow measuring gauges to measure the channel discharges. Therefore, the water losses are very high.

3.10. Details of the current situation of the command areas

There is no proper channel system to entire command area. Most of the land are not flat land.

04. Major Challenges face by the cascade system

The following are the major challenges faced by the Rambawewa Cascade: (i) Soil erosion due to chena cultivation and deposition of silt in the tanks (ii) Unauthorized chena cultivation in the catchment areas and watersheds (iii) Destruction of traditional ecosystems like Kattakaduwa, Gus Gommana etc. (iv) Depletion of forest population due to chena cultivation and deforestation (v) Improper maintenance of tanks, irrigation canals and structures (vi) Destruction of lake ecosystem due to non-performance of farmer organizations established for irrigation and maintenance of irrigation systems, (vii) Increase in siltation of tanks due to lack of tank reserves in almost all the tanks in cascade, (viii) Due to insufficient rainfall, due to the severe water shortage, it is not possible to cultivate yala under the tanks (ix) Crop damage by the elephants is a significant problem faced by farmers in this area (x) There is no proper drainage system in the cascade that leads for the flood and crop damage during the rainy season.

4.1 Critical Issues of the cascade system

Issues and interventions addressed to be urgently to protect the cascade were identified as critical issues. They were identified among the main challenges of the cascade and related to bethe data and information mentioned in the Cascade Profile. Using the key stakeholders, critical issues were identified in a participatory and realistic manner. These critical issues are summarized in Table No. 10 below.

Table 11: Details of critical issues identified

S.No.	Critical Issue	Specific area
01	Crop damage by wild animals specially Elephants damage	Wild animal problem
02	Non availability of quality drinking water (Salinity water)	Salinity in drinking water
03	Poor drainage system cascade area Maha panikkatiyawa to Bellankadawala Bellankadawala to Kanthamalawa mahawewa Ralappanawa to Kanthamalawa maha wewa In proper canal system causes water loses (high conveyance losses) in the cascade area	No Drainage system
05	Shortage of water in the tanks of cascade, it leads to the reduction in Yala season cultivation	Water scarcity for agriculture
06	Delays in receiving technical assistance in water management	Poor technical knowledge
07	Non availability of quality seeds on time	No quality seeds
08	Land encouragement at the catchment area of tanks in the cascade	No proper Land demarcation
09	Improper maintenance of tanks, irrigation canals and structures	Tank maintenance

4.2 Proposed strategic interventions plan by the CMC to resolve/mitigate Critical issues of the cascade system

4.2.1. Goal

All stakeholders are working together effectively for formulate Cascade Management Plan to make Rambawewa cascade as a prosperous and sustainable cascade system.

4.2.2. Objectives (These are considered as strategic interventions used to solve critical problems

- i. Contribute to reduce crop damage by elephants
- ii. Contribute to reduce drinking water related deceases
- iii. Provide facilities to reduce water wastage
- iv. Facilitate for demarcation of tank reservation area
- v. Facilitate to provide water for domestic purposes
- vi. Contribute to reduce land encouragement in the tank reservation area
- vii. Contribute to reduce agricultural water scarcity and encourage farmers to adopt climate smart irrigation practices
- viii. Contribute to develop routine tank system maintenance mechanism
- ix. Facilitate for the quality seeds availability on time

4.3 Key activities suggested by the Cascade Management Committee to address or mitigate critical issues

Critical issues are the issues that need to be solved by policy makers, the cascade management committee and stakeholder organizations need to addressed urgently. Critical issues can be solved or minimized through the implementation of strategic interventions. Critical issues can be solved/minimized through the realistic action plan through the key activities including technical interventions in collaboration with the stakeholders and community-based organizations. They are shown in Table No. 11 below.

Table 12 - Proposed key activities to overcome the identified issues

Sub No.	Objective	Proposed Activities
1	Contribute to reduce crop damage by elephants	1.1.Establishment of seasonal elephant fences in the selected area
		1.2.Farmer awareness program for deforestation

		1.3. Make arrangement for the repairing of damaged elephant fences
2	Contribute to reduce drinking water related diseases	2.1. Make arrangement to establish water treatment plants
		2.2. Make arrangement for the maintenance of available water treatment plants
		2.3. Farmer awareness program for the water related health diseases
		2.4. Getting the active participation of farmer organizations for the re-establishment and sustainable maintenance of Kattakaduwa, Gasgommana and sewage canals in needed tanks in cascade
3	Provide facilities to reduce water wastage	3.1. Construction of drainage canals in Mahapanikketiyawa to Bellankadawala and bellankadawala to Kanthamalawa maha wewa. Likewise, Ralappanawa to Kanthamalawa maha wewa
		3.2. Construction and maintenance of canal system in all tanks in the cascade
		3.3. Introducing micro irrigation system for the OFC cultivation
		3.4. Introduce less water consumption crops in yala season
4	Facilitate for demarcation of tank reservation area	4.1. Make arrangement for demarcation of tank reservation area for all 9 tanks in the cascade
5	Facilitate to provide water for domestic purposes	5.1. Study the water availability in the Madugaka wewa area
		5.2. Make necessity for the water supply to Madugaka wewa area
6	Contribute to reduce land encouragement in the tank reservation area	6.1. Make arrangement for demarcation of tank reservation area
		6.2. Make awareness of land ownership and land management
		6.3. Facilitate to get agricultural lands for the promotion of agriculture production

7	Contribute to reduce agricultural water scarcity and encourage farmers to adopt climate smart irrigation practices	7.1. Construction and maintenance of proper canal system
		7.2. Introduction of climate smart agriculture practices, modern as well as improved agro-technical methods through producer societies
		7.3. Provision of modernization technology and ASC digitalization facilities to the farmers.
		7.4. Formation and strengthening of producer societies and producer associations to deal with public and private sector organizations to secure higher prices for farm produce.
8	Contribute to develop routine tank system maintenance mechanism	8.1. Make awareness for the maintenance of tank and canal system to the members of FOs
		8.2. Prepare an action plan for the O & M system of tanks in the cascade
		8.3. Create fund raising mechanism for O & M system of tanks in the cascade
		8.4. Provide basic assistance/ equipment to FOs for tank O & M activities
9	Facilitate for the quality seeds availability on time	9.1. Make awareness for the importance of seeds production
		9.2. Establish seed growers for paddy and OFC in the cascade area
		9.3. Organize technical training programs on seed production of paddy and OFC
		9.4. Assist to link Producer Societies with Department of seed production in the area
10	Facilitate to establish sustain cascade system	10.1. Aware among stakeholders regarding benefits of cascade management
		10.2. Strengthening of Cascade Management Committee (CMC)
		10.3. Assist to prepare cascade profile and cascade development plan

05. Cascade Management (Basic) Development Plan

The participatory assessment process is the basic methodology for developing the Cascade Management (Basic) Development Plan (CMBDP), and appropriate tools were used to identify the bio-physical condition of the cascade area. CMBDP leads to more appropriate actions to protect the landscape of the cascade. All stakeholders have been re-intervened and identified the acute cases.

5.1: Total estimated cost for implementing interventions and contribution expected from the stakeholder agencies

Table 13: Gannt Chart for proposed activities and responsible entities for implementing

No.	Proposed Activities	Budget (Rs. Mn.)	Time Frame														Responsibility of Implementation
			Short Term (Jul - Dec 2023)						Mid Term (Jan - Dec 2024)				Long Term (Jan - Dec 2025)				
			Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	1.1.Establishment of seasonal elephant fences in the selected area	19.43															DAD, FO
	1.2.Farmer awareness program for deforestation	0.05															Dept. of forest
	1.3.Make arrangement for the repairing of damaged elephant fences	1.00															Dept. of wildlife
2	2.1. Make arrangement to establish water treatment plants	2.00															Water board, Dept. of Health
	2.2. Make arrangement for the maintenance of available water treatment plants	0.50															DS office
	2.3. Farmer awareness program for the water related health diseases	0.05															Dept. of Health
	2.4. Getting the active participation of farmer organizations for the re-establishment and sustainable maintenance of Kattakaduwa, Gasgommana and sewage canals in needed tanks in cascade	1.00															DAD, Dept. of forest
3	3.1. Construction of drainage canals in Mahapanikketiyawa to Bellankadawala and	10.00															DAD & PID

	bellankadawala to Kanthamalawa maha wewa. Likewise, Ralappanawa to Kanthamalawa maha wewa															
	3.2. Construction and maintenance of canal system in all tanks in the cascade	10.00														DAD & PID
	3.3. Introducing micro irrigation system for the OFC cultivation	3.00														DOA
	3.4. Introduce less water consumption crops in yala season	0.30														DOA
4	4.1. Make arrangement for demarcation of tank reservation area for all 9 tanks in the cascade	0.50														DAD
5	5.1. Study the water availability in the Madugaka wewa area	0.10														Water board
	5.2. Make necessity for the water supply to Madugaka wewa area	9.00														Water board
6	6.1. Make awareness of land ownership and land management	0.05														DS Office
	6.2. Facilitate to get agricultural lands for the promotion of agriculture production	0.03														DS office
7	7.1. Introduction of climate smart agriculture practices, modern as well as improved agro-technical methods through producer societies	0.05														DOA
	7.2. Provision of modernization technology and ASC digitalization facilities to the farmers.	1.00														DAD

5.2. Total estimated cost for implementing interventions and contribution expected from the stakeholder agencies

Table 14: Interventions and contribution expected from the stakeholder agencies

No.	Proposed Activities	Est. Cost (Rs. Mn.)	Expected budget contribution (Rs. Mn.)			
			Private	Line agencies	Farmer	Funding Agencies
1	1.1.Establishment of seasonal elephant fences in the selected area	19.43				19.42
	1.2. Farmer awareness program for deforestation	0.05				0.05
	1.3. Make arrangement for the repairing of damaged elephant fences	1.00		1.00		
2	2.1. Make arrangement to establish water treatment plants	2.00		2.00		
	2.2. Make arrangement for the maintenance of available water treatment plants	0.50	0.50			
	2.3. Farmer awareness program for the water related health diseases	0.05		0.05		
	2.4. Getting the active participation of farmer organizations for the re-establishment and sustainable maintenance of Kattakaduwa, Gasgommana and sewage canals in needed tanks in cascade	1.00		1.00		
3	3.1. Construction of drainage canals in Mahapanikketiyawa to Bellankadawala and bellankadawala to Kanthamalawa maha wewa. Likewise, Ralappanawa to Kanthamalawa maha wewa	10.00				10.00
	3.2. Construction and maintenance of canal system in all tanks in the cascade	10.00		10.00		
	3.3. Introducing micro irrigation system for the OFC cultivation	3.00				3.00
	3.4. Introduce less water consumption crops in yala season	0.30				0.30
4	4.1. Make arrangement for demarcation of tank reservation area for all 9 tanks in the cascade	0.50		0.50		
5	5.1. Study the water availability in the Madugaka wewa area	0.10		0.10		
	5.2. Make necessity for the water supply to Madugaka wewa area	9.00		9.00		
6	6.1. Make awareness of land ownership and land management	0.05				0.05
	6.2. Facilitate to get agricultural lands for the promotion of agriculture production	0.03		0.03		

7	7.1. Introduction of climate smart agriculture practices, modern as well as improved agro-technical methods through producer societies	0.05				0.05
	7.2. Provision of modernization technology and ASC digitalization facilities to the farmers.	1.00				1.00
	7.3. Formation and strengthening of producer societies and producer associations to deal with public and private sector organizations to secure higher prices for farm produces.	0.03				0.03
8	8.1. Make awareness for the maintenance of tank and canal system to the members of FOs	0.05		0.05		
	8.2. Prepare an action plan for the O & M system of tanks in the cascade	0.03				0.03
	8.3. Create fund raising mechanism for O & M system of tanks in the cascade	-				
	8.4. Provide basic assistance/ equipment to FOs for tank O & M activities	0.45				0.45
9	9.1. Make awareness for the importance of seeds production	0.03		0.03		
	9.2. Establish seed growers for paddy and OFC in the cascade area	0.03		0.03		
	9.3. Organize technical training programs on seed production of paddy and OFC	0.05		0.05		
	9.4. Assist to link Producer Societies with Department of seed production in the area	0.01			0.01	

5.3. Implementation Methodology of the Cascade Management Plan

CMBDP should be submitted to the Divisional Agriculture Committee and the District Agriculture Committee for approval. After getting the approval, it will be implemented.

The sub project proposals (Attachment No. 04) will be prepared by CMC with the support of the relevant implementing agencies for obtaining capital assistance

Major partner institutions are committed to implementing the proposed activities, preparing and supporting existing investment plans, budget reports and implementation plans, and assisting CMC in submitting grant funding proposals to be provided.

Social Audit Committees of sub-project implementation effectiveness. CMC appoints Social Audit Committees and gives active contributions to the beneficiaries to enhance the quality of work performed by the CMC



ගොවිජන සංවර්ධන දෙපාර්තමේන්තුව
கமநல அபிவிருத்தித் திணைக்களம்
DEPARTMENT OF AGRARIAN DEVELOPMENT

මගේ අංකය
எனது இல.
My No.

7/3/9/CMC/2023

ඔබේ අංකය
உமது இல.
Your No.

දිනය
திகதி
Date

2023.08.03

වික්‍රමේ අංකය - 06/2023

සියලුම දිස්ත්‍රික් ලේකම්වරුන් සහ ප්‍රාදේශීය ලේකම්වරුන් වෙත,

එල්ලංගා පද්ධති කළමනාකරණ කමිටු පිහිටුවීම හා පවත්වා ගෙන යාම.

Cascade Management Committee (CMC) Establishment & Continuity

රට අභ්‍යන්තරයේ සිට මුහුදට ගලා බසින ප්‍රධාන ගංගා (Rivers) කෘතීමය ජල මාර්ග ලෙසත්, එම ප්‍රධාන ගංගා වලට එකතුවන අතු ගංගා (Tributarite) ද්විතීක ජල මාර්ග ලෙසත්, එම අතු ගංගා වලට ජලය සපයන කුඩා ජල මාවත් (Small water ways) ප්‍රාථමික ජල මාර්ග ලෙසත් හැඳින්වේ. ග්‍රාමීය වැව් හා අමුණු වැඩි ප්‍රමාණයක් ප්‍රාථමික ජල මාර්ග හරහා ඉදිකර ඇති අතර භූමිය මතුපිට ජලය ගබඩා කර පහළට ගලා යාමට සැලැස්වීමට සකස් කර ඇති වැව් ද මීට ඇතුළත් වේ.

02. මෙරට අභ්‍යන්තරයේ පවතින ප්‍රාථමික ජල මාර්ගයක් හෝ ප්‍රථමික ජල මාර්ග ජාලයක පිහිටා ඇති, ජල විද්‍යාත්මක වශයෙන් එකට බැඳුණු කුඩා හා මධ්‍යම ප්‍රමාණයේ වැව් පද්ධති හෝ වැව් හා අමුණු පද්ධති හෝ අමුණු පද්ධති වලින් සමන්විත, මධ්‍යම ප්‍රමාණයේ ජල පෝෂක ප්‍රදේශයක් (Meso-catchment) එල්ලංගා පද්ධතිය ලෙස හැඳින්වේ.

03. ශ්‍රී ලංකාවේ එල්ලංගා පද්ධති 1166 ක් දැනට හඳුනාගෙන ඇත. මෙම එල්ලංගා පද්ධති ආශ්‍රිතව භූ විද්‍යාත්මක, ජල විද්‍යාත්මක, පරිසර විද්‍යාත්මක සහ සමාජ ආර්ථික ප්‍රගමණය උදෙසා සම්පත් භාවිතය කාර්යක්ෂමව හා නිරසරව පවත්වාගෙන යාම ඉලක්ක කරගනිමින් 1968 අංක 48 දරන වාරිමාර්ග (සංශෝධන) ආඥා පනතින් සංශෝධිත 1946 අංක 32 දරන වාරිමාර්ග ආඥා පනතේ 1 (අ) 1, 2, 3, 4 වගන්ති ප්‍රකාරව ගොවිජන සංවර්ධන කොමසාරිස් ජනරාල් වෙත පැවරී ඇති බලතල අනුව සහ උක්ත පනත යටතේ පවත්වනු ලබන දිස්ත්‍රික් කෘෂිකර්ම කමිටුවේදී වාරි කර්මාන්ත ආශ්‍රිත වී වගාව ඇතුළු කෘෂිකර්මයට බලපාන හෝ අනුෂාංගික සියලු කරුණු සම්බන්ධව කටයුතු කිරීමට උක්ත පනතෙන් ඔබ වෙත පැවරී ඇති බලතල අනුව එල්ලංගා පද්ධති කළමනාකරණ කමිටු [Cascade Management Committee (CMC)] පිහිටුවීම හා පවත්වාගෙන යාම සම්බන්ධයෙන් කෘෂිකර්ම කමිටුවේදී සමාලෝචනය කරන ලෙසත් ඊට පහත සඳහන් කරුණු මාර්ගෝපදේශ වශයෙන් යොදාගන්නා ලෙසත් කාරුණිකව දන්වා සිටිමි.

3.1. එල්ලංගා පද්ධති කළමනාකරණ කමිටු පිහිටුවීමේ පරමාර්ථ

- i. එල්ලංගාවක පිහිටි සියලු ස්වාභාවික සම්පත්, එනම් පස, ජලය, වන සම්පත, ජෛව පද්ධති, ඉඩම් හා වාරිමාර්ග පද්ධති කළමනාකරණය කිරීම සඳහා ප්‍රතිලාභීන් සහ අදාළ රාජ්‍ය නිලධාරීන් ඒකාබද්ධ ප්‍රවේශයකින් කටයුතු කිරීම සඳහා ආයතනික ව්‍යුහයක් සකස් කිරීම.
- ii. වාරි කෘෂිකර්මය, පශු සම්පත් කටයුතු සහ මිලිදියා ධීවර කර්මාන්තය, සඳහා ජලය සැපයීම, වන සම්පත හා වන ජීවී අවශ්‍යතා තුළනාත්මකව පවත්වාගෙන යාම, භූගත ජල මට්ටම ප්‍රශස්ත ලෙස පවත්වාගෙන යාම, ගෙවතු වගාව ඇතුළු ගෘහස්ථ ජල අවශ්‍යතාවයන් විධිමත් ලෙස කළමනාකරණය කිරීම.

ගොවිජන සංවර්ධන දෙපාර්තමේන්තුව, පංත 42, ශ්‍රීමත් මාර්කස් ප්‍රනාන්දු මාවත, සැ. පො. 537, කොළඹ 07.
 கமநல அபிவிருத்தித் திணைக்களம், இல: 42, சீர் மார்கஸ் பெர்னாந்து மாஸ்த்ளத், அ. பெ. 537, கொழும்பு 07.
 DEPARTMENT OF AGRARIAN DEVELOPMENT, No. 42, SIR MARCUS FERNANDO MAWATHA, P. O. BOX 537, COLOMBO 07.

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ගොවිජන සංවර්ධන කොමසාරිස් ජනරාල්
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එදුල් පෘථිවි
 தருளி
 Telegram

ගොවිජනසේවා
 கொள்வனவு
 Agraservis

- iii. කෘෂිකාර්මික කටයුතු සඳහා ජලය භාවිතා කරන්නන් ඇතුළුව එල්ලංගා පද්ධතිය නඩත්තු කිරීම සඳහා අවනතුන් පරිශීලකයන්ගේ සහ පාර්ශ්වකරුවන්ගේ ආයතනික ලබාගැනීම.

3.2. එල්ලංගා පද්ධති කළමනාකරණ කමිටු පිහිටුවීමේ අරමුණු

- i. එල්ලංගා පද්ධති කළමනාකරණය හා තිරසර පැවැත්ම සඳහා නීතිමය පිළිගැනීමක් සහිත ආයතනික ව්‍යුහයක් ඇති කිරීම.
- ii. එක් එක් එල්ලංගා පද්ධති වලට අදාළව එහි ක්‍රියාකාරීත්වයට හා තිරසර පැවැත්මට අදාළ වන ගැටළු හා යෝජිත විසඳුම් ඒකාබද්ධ ප්‍රවේශයකින් යුක්තව සාකච්ඡා කර නීතිමය වශයෙන් පිළිගත් ක්‍රමවේදයක් ඇති කිරීම.
- iii. එල්ලංගා පද්ධතිය තුළ පිහිටි වාරි කෘෂිකාර්මික, ජල කළමනාකරණ, පාරිසරික, සමාජ ආර්ථික හා භූ විද්‍යාත්මක සාධක පද්ධතියේ මනා ක්‍රියාකාරීත්වය සඳහා අඛණ්ඩව හා සක්‍රීයව පවත්වාගෙන යාමට ක්‍රමවේදයක් ඇති කිරීම.
- iv. එල්ලංගා පද්ධතියේ සංවර්ධන කටයුතු වලදී, මුළු පද්ධතියට සිදුවන හානියෙන් වලක්වා ගනිමින් අවශ්‍යතා තහවුරු කිරීම, ජල සම්පත් කාර්යක්ෂමව පරිහරණය සඳහා වගා කන්න පදනම් කර ගනිමින් සැලසුම් සකස් කිරීම.
- v. එල්ලංගා පද්ධතිය සඳහා ඒකාබද්ධ කෘෂිකාර්මික නිෂ්පාදන සැලැස්මක් සකස් කිරීම හා එම සැලැස්මේ ක්‍රියාත්මක තත්ත්වය පසුපරම් කිරීම.
- vi. එල්ලංගා පද්ධතියක පැවතිය යුතු අංශෝපාංග ප්‍රතිස්ථාපනය සඳහා අවශ්‍ය කටයුතු කිරීම.
- vii. එල්ලංගා පද්ධති හා බැඳුණු සමාජ ආර්ථික සම්බන්ධතා ආරක්ෂා කිරීම හා ඒ පිළිබඳව පාර්ශ්වකරුවන් දැනුවත් කිරීම.

3.3. එල්ලංගා පද්ධති කළමනාකරණ කමිටුවේ කාර්යභාරය

- i. එල්ලංගා පද්ධතිය සඳහා වන සැලසුම් සකස් කිරීම, ක්‍රියාත්මක කිරීම හා පසුපරම් කිරීම.
- ii. එල්ලංගා පද්ධති කළමනාකරණ කමිටු සාමාජිකයන් විසින් ඉදිරිපත් කරනු ලබන ගැටලු, යෝජනා සහ සැලසුම් සඳහා විසඳුම් ලබාදීම සහ විසඳිය නොහැකි ගැටලු අදාළ වන පරිදි ප්‍රාදේශීය / දිස්ත්‍රික් කෘෂිකර්ම කමිටුව වෙත යොමු කර විසඳා ගැනීම.
- iii. එල්ලංගා පද්ධති කළමනාකරණයට අදාළ වාර්තාවක් අවස්ථානුකූලව ප්‍රාදේශීය / දිස්ත්‍රික් කෘෂිකර්ම කමිටුව වෙත ඉදිරිපත් කිරීම.
- iv. ග්‍රාමීය වැව් එල්ලංගාවක් තුළ පිහිටි සියලුම ජල මූලාශ්‍ර හා ජල පාරිභෝගිකයින් එක්ව එල්ලංගාව අයත් මධ්‍යම ජල පෝෂක ප්‍රදේශය (Meso-Catchment) සඳහා ඒකාබද්ධ කෘෂිකාර්මික සැලැස්මක් පිළියෙල කොට ක්‍රියාත්මක කිරීම.
- v. එල්ලංගාවක් තුළ කටයුතු කරන සියලුම ජල පාරිභෝගිකයන්ගේ අවශ්‍යතා අනුව ජල පෝෂක ප්‍රදේශය තුළ පවතින ස්වභාවික සම්පත් කළමනාකරණයට අදාළ තීරණ ගැනීම හා ක්‍රියාත්මක කිරීම.
- vi. ස්වභාවික ආපදා, වාසනා හා භෞතික මානව ක්‍රියාකාරකම් අවම කරගැනීමට හැකිවන පරිදි සියලු ජල මූලාශ්‍ර කළමනාකරණය කිරීම.
- vii. එල්ලංගාව තුළ පිහිටි සියලු ජල මූලාශ්‍ර ආශ්‍රිත ජල පාරිභෝගිකයන් අතර කාර්යක්ෂම තොරතුරු සන්නිවේදන ක්‍රමයක් ස්ථාපිත කිරීම.
- viii. එල්ලංගාව තුළ ඇති පරිසර පද්ධති වලට අදාළ යෙදවුම් හා නිමවුම් ප්‍රශස්ත ලෙස කළමනාකරණය සඳහා විධිමත් ක්‍රමවේදයක් ස්ථාපිත කිරීම.
- ix. පවතින හා ඉදිරියේදී ඇතිවිය හැකි බවට අනාවැකි පල කරන දේශගුණික විචලනයන් සඳහා යෝග්‍ය වූ දේශගුණික සුහුරු උපායමාර්ගික සැලසුම් ක්‍රියාවට නැංවීම සහ ජල පාරිභෝගිකයන් එවැනි දේශගුණික අනුගත වීම් වලට හුරු කිරීම.
- x. එල්ලංගා පද්ධතිය තුළ ජල පාරිභෝගිකයන් අතර දැනුම, ආකල්ප, කුසලතාවයන් සහ සම්පත් එලදායි ලෙස හුවමාරු කරගැනීම.
- xi. ජල පාරිභෝගිකයන්ගේ ඉඩම්, ජලය හා පරිසර පද්ධතිවල එලදායිතාවය ඉහළ නැංවීමට කටයුතු කිරීම.

- xii. කෘෂිකර්මයට හා ජල පරිභෝජනයට අදාළ වන පරිසර පද්ධති හා සම්බන්ධ සාම්ප්‍රදායික නීති හා පනවන ලද නීති බලාත්මක කිරීමට අවශ්‍ය සහය ලබා දීම.
- xiii. ඉඩම් හිමි ගොවීන්ගේ හා බුක්කිකරුවන්ගේ රැස්වීම් (වගා කන්න රැස්වීම්) පැවැත්වීම සඳහා අවශ්‍ය මූලික තීරණ ගැනීමට ගොවීන්ට සහාය වීම, ඊට අදාළ සම්බන්ධීකරණ කටයුතු සිදු කිරීම සහ පසුපරම් කිරීම.
- xiv. එල්ලංගා පද්ධති බල ප්‍රදේශය තුළ සියලු ජල මූලාශ්‍ර සහ ඊට අනුබද්ධ අනිකුත් පරිසර පද්ධති වල තීරසර බව සඳහා අදාළ රාජ්‍ය ආයතනවල මහ පෙන්නීම හා උපදෙස් අනුගමනය කරමින් සංරක්ෂණය කරවීමට ක්‍රියාමාර්ග ගැනීම.
- xv. එල්ලංගා පද්ධතියට හානිකරන පාර්ශවයන්ට එරෙහිව නීතිමය පියවර ගැනීමට අවශ්‍ය කටයුතු කිරීම.
- xvi. එල්ලංගා පද්ධතියේ සෑම සංවර්ධන ක්‍රියාවලියකදීම ඒ සඳහා ක්‍රියාකාරී ලෙස දායකත්වය ලබාදීම හා ප්‍රගති සමාලෝචනය කිරීම.
- xvii. එල්ලංගා පද්ධතියේ වාරි කර්මාන්ත වල කන්න රැස්වීම් තීරණ ක්‍රියාත්මක කිරීමේ තත්ත්වය පසුපරම් කිරීම.
- xviii. එල්ලංගා පද්ධතියේ වාරි කර්මාන්ත වල මෙහෙයුම් හා නඩත්තු වැඩසටහන පසුපරම් කිරීම.

3.4. එල්ලංගා පද්ධති කලමනාකරණ කමිටුවේ සංයුතිය

3.4.1 ප්‍රාදේශීය මට්ටම

මෙම කමිටුව අදාළ ප්‍රාදේශීය ලේකම් බල ප්‍රදේශයේ පහත නිලධාරීන්ගෙන් සමන්විත වේ.

- i. ප්‍රාදේශීය ලේකම්
- ii. ගොවිජන සංවර්ධන ප්‍රාදේශීය නිලධාරී
- iii. කෘෂිකර්ම උපදේශක
- iv. පළාත් වාරිමාර්ග දෙපාර්තමේන්තුව නියෝජනය කරමින් ඉංජිනේරු / තාක්ෂණික නිලධාරී
- v. ගොවිජන සංවර්ධන දෙපාර්තමේන්තුව නියෝජනය කරමින් ප්‍රාදේශීය ඉංජිනේරු / තාක්ෂණික නිලධාරී
- vi. කෘෂිකර්ම පර්යේෂණ හා නිෂ්පාදන සහකාර
- vii. ග්‍රාම නිලධාරී
- viii. සමෘද්ධි සංවර්ධන නිලධාරී
- ix. ආර්ථික සංවර්ධන නිලධාරී
 - x. ඉඩම් පරිහරණ හා ප්‍රතිපත්ති සැලසුම් දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
 - xi. පළාත් ධීවර දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
 - xii. ජලජීවී වගා සංවර්ධන අධිකාරියේ නියෝජිතයෙකු
 - xiii. පරිසර අධිකාරියේ නියෝජිතයෙකු
 - xiv. පොලිස් පරිසර ඒකකයේ නියෝජිතයෙකු
 - xv. සත්ත්ව නිෂ්පාදන හා සෞඛ්‍ය දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
 - xvi. කෘෂිකාර්මික හා ගොවිජන රක්ෂණ මණ්ඩලයේ නියෝජිතයෙකු
 - xvii. වාරි මාර්ග ඉංජිනේරු/තාක්ෂණ නිලධාරී
- xviii. වන ජීවී සංරක්ෂණ දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
- xix. වන සංරක්ෂණ දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
- xx. භූ විද්‍යා හා පතල් කැණීම් කාර්යාංශයේ නියෝජිතයෙකු
- xxi. ජාතික ජල සම්පාදන හා ජලපවාහන මණ්ඩලයේ නියෝජිතයෙකු
- xxii. පුරාවිද්‍යා දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
- xxiii. සිවිල් ආරක්ෂක දෙපාර්තමේන්තුවේ නියෝජිතයෙකු
- xxiv. පළාත් පාලන ආයතන නියෝජනය කරමින් බලයලත් නිලධාරියෙකු
- xxv. ගොවි සංවිධාන, කාන්තා ගොවි සංවිධාන, නිෂ්පාදන ගොවි සංවිධාන නියෝජනය කරමින් එක් එක් ගොවි සංවිධානයේ සභාපති හෝ ලේකම්
- xxvi. ප්‍රජා ජල සංවිධානයක නියෝජිතයෙක්

3.5. එල්ලංගා පද්ධති කළමනාකරණ කමිටුවක නිලධාරී මණ්ඩලය - ප්‍රාදේශීය මට්ටම

- i. එල්ලංගා පද්ධතියට ප්‍රාදේශීය ලේකම් කොට්ඨාස එකකට වැඩි ගණනක් පවතින අවස්ථාවක දී සහභාගී වන සෑම ප්‍රාදේශීය ලේකම්වරයෙක්ම කමිටුවේ සම සභාපති ලෙස නිල වශයෙන් කටයුතු කළ යුතුය.
- ii. එල්ලංගා පද්ධතියට අදාළ ගොවිජන සේවා බල ප්‍රදේශයේ ගොවිජන සංවර්ධන ප්‍රාදේශීය නිලධාරී කමිටුවේ ලේකම් ලෙස නිල වශයෙන් කටයුතු කළ යුතුය. එල්ලංගා පද්ධතියට ගොවිජන සේවා බල ප්‍රදේශ එකකට වැඩි ගණනක් පවතින අවස්ථාවන්හි දී වැඩි පෝෂිත අක්කර ගණනක් පවතින බල ප්‍රදේශයේ ගොවිජන සංවර්ධන ප්‍රාදේශීය නිලධාරී ලේකම් ලෙස කටයුතු කළ යුතුය.
- iii. කමිටුවේ සභාපතිවරයාගේ උපදෙස් පරිදි ලේකම්වරයා විසින් රැස්වීම කැඳවීම සිදු කළ යුතුය.

3.6. එල්ලංගා පද්ධති කළමනාකරණ කමිටුවක නිලධාරී මණ්ඩලය - දිස්ත්‍රික් මට්ටම

- i. එල්ලංගා පද්ධතියට දිස්ත්‍රික් එකකට වැඩි ගණනක් පවතින අවස්ථාවක දී සහභාගී වන සෑම දිස්ත්‍රික් ලේකම්වරයෙක්ම කමිටුවේ සම සභාපති ලෙස නිල වශයෙන් කටයුතු කළ යුතුය.
- ii. එල්ලංගා පද්ධතියට අදාළ දිස්ත්‍රික් නියෝජ්‍ය / සහකාර කොමසාරිස්වරුන් කමිටුවේ ලේකම් ලෙස නිල වශයෙන් කටයුතු කළ යුතුය. එල්ලංගා පද්ධතියට ගොවිජන සේවා බල ප්‍රදේශ එකකට වැඩි ගණනක් පවතින අවස්ථාවන්හි දී වැඩි පෝෂිත අක්කර ගණනක් පවතින දිස්ත්‍රික් නියෝජ්‍ය / සහකාර කොමසාරිස්වරුන් ලේකම් ලෙස කටයුතු කළ යුතුය.
- iii. කමිටුවේ සභාපතිවරයාගේ උපදෙස් පරිදි ලේකම්වරයා විසින් රැස්වීම කැඳවීම සිදු කළ යුතුය.

04. ශ්‍රී ලංකාවේ කෘෂිකර්මාන්තයේ නිරසර බව රඳා පවතින ප්‍රධාන අංගයක් වන ජෛව පද්ධති කළමනාකරණය සඳහා එල්ලංගා වාරිමාර්ග කළමනාකරණය විධිමත් කිරීම සඳහා පිහිටවනු ලබන එල්ලංගා පද්ධති කළමනාකරණ කමිටු [Cascade Management Committee (CMC)] තුළින් අපේක්ෂිත කාර්යභාරය ඉටුකරගැනීම සඳහා ඒකාබද්ධ ප්‍රවේශයකින් කටයුතු කරනු ඇතැයි අපේක්ෂා කරමි.


 ඒ.එම්.එම්.එල්.අබේරත්න
 ගොවිජන සංවර්ධන කොමසාරිස් ජනරාල්

පිටපත් :-

- i. ලේකම්, රාජ්‍ය පරිපාලන, ස්වදේශීය කටයුතු, පළාත් සභා හා පළාත් පාලන අමාත්‍යාංශය
- ii. ලේකම්, කෘෂිකර්ම අමාත්‍යාංශය
- iii. සියලුම පළාත් ප්‍රධාන ලේකම්වරුන්
- iv. විගණකාධිපති, ජාතික විගණන කාර්යාලය
- v. පොලිස්පති, ශ්‍රී ලංකා පොලිස් දෙපාර්තමේන්තුව
- vi. අධ්‍යක්ෂ ජනරාල්, කෘෂිකර්ම දෙපාර්තමේන්තුව
- vii. අධ්‍යක්ෂ ජනරාල්, වාරිමාර්ග දෙපාර්තමේන්තුව
- viii. අධ්‍යක්ෂ ජනරාල්, සමෘද්ධි සංවර්ධන දෙපාර්තමේන්තුව
- ix. අධ්‍යක්ෂ ජනරාල්, වනජීවී සංරක්ෂණ දෙපාර්තමේන්තුව
- x. වන සංරක්ෂක ජනරාල්, වන සංරක්ෂණ දෙපාර්තමේන්තුව

- xi. අධ්‍යක්ෂ ජනරාල්, සත්ත්ව නිෂ්පාදන හා සෞඛ්‍ය දෙපාර්තමේන්තුව
- xii. අධ්‍යක්ෂ ජනරාල්, ඉඩම් පරිහරණ හා ප්‍රතිපත්ති සැලසුම් දෙපාර්තමේන්තුව
- xiii. අධ්‍යක්ෂ ජනරාල්, පුරාවිද්‍යා දෙපාර්තමේන්තුව
- xiv. අධ්‍යක්ෂ ජනරාල්, සිවිල් ආරක්ෂක දෙපාර්තමේන්තුව
- xv. අධ්‍යක්ෂ ජනරාල්, ජලජීවී වගා සංවර්ධන අධිකාරිය
- xvi. අධ්‍යක්ෂ ජනරාල්, මධ්‍යම පරිසර අධිකාරිය
- xvii. අධ්‍යක්ෂ ජනරාල්, භූ විද්‍යා හා පතල් කැණීම් කාර්යාංශය
- xviii. සභාපති, කෘෂිකාර්මික හා ගොවිජන රක්ෂණ මණ්ඩලය
- xix. සමාන්‍යාධිකාරී, ජාතික ජල සම්පාදන හා ජලපවාහන මණ්ඩලය
- xx. සියලුම පළාත් ලේකම් වරුන්, පළාත් කෘෂිකර්ම අමාත්‍යාංශය
- xxi. ලේකම්, පළාත් වාරිමාර්ග අමාත්‍යාංශය
- xxii. සියලුම පළාත් කෘෂිකර්ම අධ්‍යක්ෂකවරුන්, පළාත් කෘෂිකර්ම දෙපාර්තමේන්තුව
- xxiii. සියලුම පළාත් සත්ව නිෂ්පාදන හා සෞඛ්‍ය අධ්‍යක්ෂකවරුන්, පළාත් සත්ත්ව නිෂ්පාදන හා සෞඛ්‍ය දෙපාර්තමේන්තුව
- xxiv. ව්‍යාපෘති අධ්‍යක්ෂකවරුන් - CSIAP/ CRIWMP/ SARP
- xxv. සියලුම ගොවිජන සංවර්ධන නියෝජ්‍ය/සහකාර කොමසාරිස් වරුන්

(කාරුණික දැනගැනීමට සහ අවශ්‍ය කටයුතු සඳහා)

Annexture 2

Attendance of Transact walk

MINISTRY AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date: 21/05/2023 Time: 3:30 - 4:30 Venue: Rambewa Cesside
Subject: Transact walk.

අ.අ.කය නිල.	සහභාගිවන්නාගේ නම පෙරුම	ජාති/ප්‍රදේශ ප්‍රාන්ත	ලිපිනය මුහුණත	දුරකථන අංකය මොබයිල් නිල.	අත්සන සහතිකය
01	R. Jaganwardan	MR.	1 Karalegama rd. 20 main road	0784624062	
02	L.F.L.J Fonseka	M	Kandamulawa	0772819604	
03	P.R. Premathilaka	M	Kandamulawa	0713736940	
04	අනුමාල	M	අනුමාල එළවලු	-	අනුමාල
05	සුචන්ද්‍ර	අය	අනුමාල එළවලු	0715473001	
06	D.R. චන්ද්‍රසේන	M	මුහුණත එළවලු	0760869922	

MINISTRY AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date: _____ Time: _____ Venue: _____
Subject: _____

අ.අ.කය නිල.	සහභාගිවන්නාගේ නම පෙරුම	ජාති/ප්‍රදේශ ප්‍රාන්ත	ලිපිනය මුහුණත	දුරකථන අංකය මොබයිල් නිල.	අත්සන සහතිකය
07	S.S. චන්ද්‍රසේන	අය	අනුමාල එළවලු	0764471700	
08	K.S. අනුමාල	M	අනුමාල		අනුමාල
09	M. චන්ද්‍රසේන	M	අනුමාල		චන්ද්‍රසේන
10	බිබිසා විජේසේන	අය		0783214646	
11	Sathiyakumar			0866003828	S. Sathiyakumar
12				0752228519	



MINISTRY AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date:
Subject:

Time

Venue

අ.අ.කය இல.	සහකාරවිද්‍යාගේ නම பெயர்	ස්ත්‍රී/පුරුෂ ஆள்/ பெண்	ලිපිනය முகவரி	දුරකථන අංකය தொலைபேசி இல.	අත්සන கையொப்பம்
13	B.m. Dikk				
14	m D-C Ary				
15	P.V. Gencmille	Male	Wijethu Gramadam Rendagga Junction Mannar.	071 8203035	
16	අනුප	male	අනුපාතියා		
17	A. A. K. S. S. S.	y/m	අනුපාතියා අනුපාතියා	0711769936	
18	අ.අ. අනුපාතියා	n	අනුපාතියා	0734264848	

අ.අ.කය இல.	සහකාරවිද්‍යාගේ නම பெயர்	ස්ත්‍රී/පුරුෂ ஆள்/ பெண்	ලිපිනය முகவரி	දුරකථන අංකය தொலைபேசி இல.	අත්සන கையொப்பம்
19	M. Ariyathosa	m	Koraklawewa	072922370	
20	M.H. Somanathirath	f	"	-	



MINISTRY OF AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date:
Sub:

Time:

Venue:

S.No	Name of the Officer	Male/ Female	Institution	Designation	Phone No	E-Mail address	Signature
21	T. Kammurajal	Male	P/Irrigation Dept	Inspection Assistant	0718161761	tkammurajal@yahoo.com	
22	E. Mohamed Rinas	Male	P/Irrigation Dept	Technical Officer	772254767	ehigamrinas@gmail.com	
23	P. Gowderathen	Male	Agriculture Department	Technical Assistant	077867856	Gowderathen@gmail.com	
24	A.S.W. Nethaneem	M	CSIAP	T.O	0772613716		
25	T. Sankaran	M	CSIAP	SSO	0775228955		
26	S.T. Kanyalady	F	CSIAP	GDD			
27	P.G.L. Maheshika	F	CSIAP	D'Person	0715633722		
28	A.S. Ayeshika	F	CSIAP	Trainee	0776023000		
29	R. Lokubanth	M	CSIAP	AF	0766882013		



MINISTRY OF AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date:
Sub:

Time:

Venue:

S.No	Name of the Officer	Male/ Female	Institution	Designation	Phone No	E-Mail address	Signature
30	H.M. Ashika Pragasanthan	Male	PS Office	EDC	0785362903	ashika.pragasanthan@gmail.com	
31	Anil Withanachchi	Male	Forest Department	B.F.O. Monrovia	071-8210652		
32	A.J.M. Rosan	M	AF - Gammamank	AF	0760664012		
33	T. Suthakran	M	CSIAP Technical Officer	T-O	0741063457		
34	R.M. Nawshad	M	CSIAP-EP	AF	078913994		
35	M. Thushyanthan	M	DS Office Marag wewa 3 Gogaran	DDP	0776179134		
36	A. Hafeel	M	DS Office Gammamank	DO	07111712		
37	M. Irajandran	M	"	DO	077607200		
38	A. Asadullah	M	"	DO	0778623455		



MINISTRY OF AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date:
Sub:

Time: 02:30 p.m

Venue:

S.No	Name of the Officer	Male/ Female	Institution	Designation	Phone No	E-Mail address	Signature
39	V. Suvantharshini	Female	D.S. Office, C/monaruvu	Do	0776120764	-	V. S.
40	A.L.M. Manthosh	m	D.S. office	Do	0998709845		A.L.M.
41	K. Pabitharan	M	D.S. office, Demarsh	Do	0778305261		K.P.
42	M.F.M. Rifaiheen	m	" "	"	0778457610		M.F.M.
43	K.M. Musammil	"	"	"	0997488924		K.M.
44	N. Jegarajah	m	"	Do	0719182659		N.J.
45	N.Amal Kishor	M	"	D.O. Agr.	0767124794		N.A.
46	S.M. Sugath	m	"	D.O	0702060660		S.M.
47	H. Tharshini	F	" "	CMSO	0716006228	dsgopanning@gmail.com	H.T.



MINISTRY OF AGRICULTURE
CLIMATE SMART IRRIGATED AGRICULTURE PROJECT (CSIAP)
PROVINCIAL DEPUTY PROJECT DIRECTOR'S OFFICE, EASTERN PROVINCE

Date:
Sub:

Time:

Venue:

S.No	Name of the Officer	Male/ Female	Institution	Designation	Phone No	E-Mail address	Signature
48	W.M.S. Kapilashan	male	DAD	WS	0767431392	indika.kapilashan12@gmail.com	W.M.S.
49	S. Navarathnam	M	CSIAP	EDCS	0773283062		S.N.

Annexure 3: List of officials and members of the first CMC.

Climate Smart Irrigated Agriculture Project (CSIAP) Deputy Project Director’s Office – Eastern Province			
District: - Trincomalee		ASC: - Gomarankadawala	
Name of the Cascade Management committee: Rambawewa			
Date of Formation: 15/03/2023			
Position	Nominated Person	Position & Department/ Organization	Conduct No
Secretary (ADO)	I.L.M.Kaizar	ADO Gomarankadawala	074-034-2755
Chairman (Rep. of DS)	M.Thushyanthan	DDP Gomarankadawala	077-617-9134
Treasurer	R.Jeyavarthana	Madukawewa Karakawewa FO President	070-276-5963
CO- Chairman (Rep. of FO)	L.E.L.S. Ponsheha	President Kanthamalawa Mahawewa	077-281-9604
Vice Secretary (Rep. of FO)	H.M.Meththanantha	RDS Secretary	076-767-5731
Committee Members 1	W.S.K.Vijayathna	GS Kathmalwa	071-556-9738
2	S.D.Clament	AI Gomarangadawala	071-890-5570
3	K.Deepika Pushpamala	WFO	078-632-0682
4	A.Janushan	DO Central Irrigation, Trincomalee	078-438-7477
5	R.Rahunan	Provincial Irrigation Department	077-513-3213
6	H.Tharshini	DS Office Gomarankadawala	071-600-5227
7	M.Kajendra	DS Office Gomarankadawala	077-607-0001

Annexure 4: Guidance format for preparation of subproject proposals to raise funds to implement interventions and major activities

Format for preparing a Subproject Proposal (SPPs) to obtain funds for implementation of interventions.

1. Administrative Details:

No	Matters	Details
1	Contact details of proposal submitting agency: (postal, e-mail, telephone etc	
2	Contact Details of the implementing agency: (postal, e-mail, telephone etc.)	
3	Contact details with the position of the person responsible for providing information of the proposal (e-mail, telephone – land/mobile:	
4	Sector of the proposal (rehabilitation of tanks/catchment treatment/agriculture practices/ marketing/ institutional development/technology transferring/training/other (specify etc.).	
5	Ref. no of the concurrence of the Divisional Agriculture Committee (DAC).	

2. Sub-Project Details:

2.1. Title of the Sub-Project (Please note that the name may be very similar to that of the project development objective, but not in all time):

.....

2.2. Summary of the sub-project (please give a very brief paragraph answering the questions of what it is, why it is, who it is, where it is and when it is implemented? The estimated total cost is also needed).

.....

2.3. Project Location (details such as cascade, Agrarian Service Centre, Local Government Ward, GN Division etc. If the project location is considered as a highly vulnerable area to flood or drought, please indicate that too).

.....

2.4. Project issue/rational/justification (This is very important and is considered as the main part of the proposal. Therefore, please highlight what the issue, how it is impacted on the farmers, how it was identified and what bad effects would happen, if it is not resolved).

.....

2.5. How the critical issue was identified? (through community consultations, requests from farmer organisations, cascade management plan etc.).

.....

2.6. Objective of the sub-project (please formulate this in very rational manner since it is important for the monitoring purpose).

.....

2.7. Specific Objectives (Specific objectives need to be developed according to SMART form and this is also very important for the monitoring purpose).

1.

2.

2.8. Proposed sub- project activities (This part needs to be described very rationally and what actions the implementing agency proposed to address the critical issue and how it contributes to achieve the project objective?

.....

2.9. Expected results (these may be economic, political, social, environment, cultural, nutritional etc.).

1.

2.

2.10. Beneficiaries (The nature of the beneficiaries – In addition to number of male and female, please indicate other characteristics also such as belonging to low-income or indigenous groups, affected by war etc.).

.....

2.11. Who of the beneficiaries will participate in implementation?

2.12. How do women get benefited?

.....

2.13. Who will be responsible for operation and maintenance (O&M) including estimated cost for O&M?

.....

2.14. Potential Risks and strategies propose to minimize the risks

2.15. Does the project fall either under the negative list or prescribed list?

(a) If, Yes, please explain whether IEE or EIA is required.

.....

(b) If No, IEER/EIS format will be required.

2.16. Name/names of the proposed farmer organizations or producer organizations that could be got involved in implementing the sub-project (if applicable, details need to be annexed).

.....

3. Implementation methodology

3.1. How the project is planned to be implemented and with what stakeholders etc? (describe with adequate details).

.....

3.1. Tendering process (explain how it is planned to procure required materials).

3.2. Activity plan (describe the activity plan with the time frame and the responsible agencies/persons in implementation. This need to be describe using a Gantt chart).

4. Subproject Monitoring Mechanism: (This is very important. Therefore, please describe how the monitoring activities are taken place providing adequate details).

.....

5. Subproject Evaluation Mechanism: (please indicate how the implementing agency plans to evaluate the project and at what intervals).

.....

6. Reporting arrangement (please describe who will take the responsibility of making both financial and progress reporting and also the expected time period).

7. Estimated Cost:

No	Major Activity	Total estimated cost in LKR	Community Contribution (LKR)	Other sources(spe cify) (LKR)	Amount expected from donor agency (LKR)
1					
2					

8. Submission

8.1. Authorized person to submit the sub-project proposal on behalf of the Cascade Management Committee (CMC).

8.2. Position, contact details, frank, date of submission

09. Annexes:

(please annex all relevant additional details to provide adequate information to justify the subproject proposal and thereby to expedite the approval process.

Annex 5: Any other appropriate information

Pictorial Perspective of Transact walk

