16.12.2015

Social Screening Report:
Rehabilitation and Construction of
Silt Traps of Kandy Lake
Strategic Cities Development
Project, Kandy City Region

MINISTRY OF MEGAPOLIS AND WESTERN DEVELOPMENT Sethsiripaya, Battaramulla

Contents

1. Background	3
2. Sub-Project Description	3
1.1 Introduction: Kandy Lake Silt Traps Improvement	3
1.2 Existing Conditions of Facility	5
1.2.1 Scope of Proposed Civil Works	θ
3. Justification of Project Design and Alternative Analysis	10
3.1 Importance of Proposed Activity	10
3.2 Resilience to Natural Disasters	11
4. Corridor of Impacts	12
4.1 Impact Area	12
4.2 Impact Identification and Assessment	12
4.3 Significant Impacts	16
4.3.1 Impact Mitigation	17
4.3.2 Public Disclosure and Information Dissemination	22
4.3.3 Grievance Redress Mechanism	22
4.4 Socio-Economic Profile	22
4.5 Social Acceptance of Sub-Project	24
5. Social Screening Checklist	25
6. Estimates of Specific Impacts	26
7. Information on Affected Persons	27
8. Decision on Categorization	28
Annex 3: Newspaper Article on Odour from Dead Fishes in Kandy Lake	31
Annex4: Stakeholder Identification and Consultation	32
Annex 5: Stakeholder Consultations: Views, Decisions and Outcomes	33
Annex 6: Community Consultations: Names, Places and Representations	35
Annex 7: Consent Letter from The Temple of Tooth	38

Tables

Table 1. Frequency and Maintenance Cost of Existing Slit Traps	5
Table 2. Basic Details of Proposed Civil Works	8
Table 3. Participation in Community Consultations	13
Table 4. Impact Identification and Assessment	14
Table 5. Potential Environmental and Social Impacts and Proposed M	itigation Measures 18
Table 6. Basic Social Profile of Area of Sub-project Area	23
Figures	
Figure 1. Location Map of Proposed and Existing Silt Traps	4
Figure 2. Mahamaya Lower	29
Figure 3. Red Culvert Lower	29
Figure 4. Red Culvert Upper	29
Figure 5. Hillwood Upper	29
Figure 6. Mahamaya Upper	29
Figure 7. Effect of Pollution in Kandy Lake	30
Figure 8. KMC Staff Removing Dead Fishes in Kandy Lake	30
Figure 9. Newspaper Article on Kandy Lake Pollution	31

1. Background

Strategic Cities Development Project has been initiated by the Government of Sri Lanka to respond to some of the current urban problems and the emerging needs of a Middle Income Country that it aspires to achieve in the medium term whilst addressing the long term goals of sustainability, inclusion and poverty reduction. The total project cost amounting to USD 192.08 MN is co-financed by the GOSL with USD 45.08 MN and the IDA credit facility of USD 147 MN managed by the World Bank (Project ID: P130548).

The above objective is to be materialized through developing a system of competitive and strategically linked cities of Sri Lanka to improve urban services and public urban spaces contributing to improved livability and investment attractiveness. This concept of systemic urban development underscores triggering strategic or purposive linkages between and among the selected cities towards achieving the stated development outcomes of the project over and above the physical outputs and thereby contributing to cause or reinforce positive impacts. In this connections the cities are placed within a framework of City Region instead of confining interventions to administrative boundaries of the local government authorities under whose jurisdiction the cities are situated.

2. Sub-Project Description

1.1 Introduction: Kandy Lake Silt Traps Improvement

KSCDP focuses on relieving traffic congestion and upgrading municipal services to enhance livability and to sustain world heritage city and its agglomeration areas. It envisages two broad categories of strategic investments: (1) Integrated urban services improvement thereby enhancing functional aspects of the city, and (2) Public urban spaces enhancement thus enhancing the attractiveness and livability of the city.

The interventions encompass the following activity areas:

- a) Traffic improvements (rehabilitation of selected by-pass roads, establishment and improvement of selected public transport facilities, and traffic management measures
- b) Augmentation and rehabilitation of Kandy municipal water supply system
- c) Rehabilitation of major drains
- d) Urban upgrading (enhancement of selected streetscapes and public spaces, restoration and adaptive reuse of historic and landmark buildings, and development of an integrated master plan).

Under the Activity Area 'C' above, a sub-project involving the rehabilitation and redesigning of the existing silt traps and the construction of additional silt traps with better facilities for de-silting has been identified. It is one among several major

investments that will improve on the city's major drainage infrastructures and flood control system, including upstream silt traps rehabilitation and construction.

Under this particular sub-project the following activities have been prioritized:

- Rehabilitation of 2 Nos. of existing sit traps (Lower Mahamaya, and Lower Red Culvert)
- Construction of 3 Nos. of silt traps (Upper Red Culvert, Upper Hilllwood, and Upper Mahamaya)

The above structures are small in size and located in five different places that come within three GNDs: Ampitiya North, Ampitiya South and Malwatte GN Divisions.

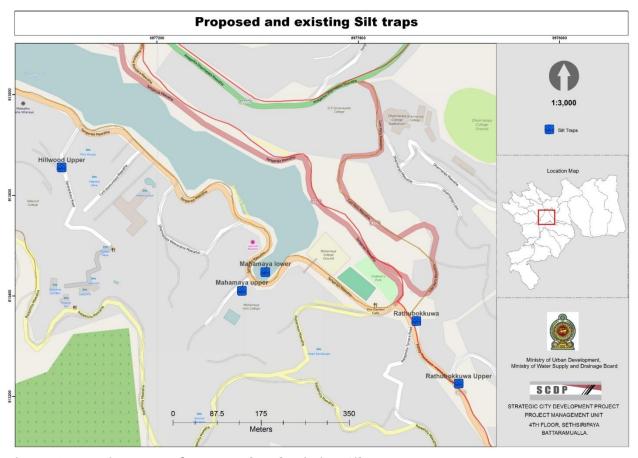


Figure 1. Location Map of Proposed and Existing Silt Traps

The sub-project will directly benefit the city population totaling 108,000 including in particular the residents around the identified locations of silt traps totaling about 370 persons, and an estimated 350,000 commuters to the city including tourists. The district's

population of 1.37 MN would be among the indirect beneficiaries. The beneficiary population is multi-ethnic and multi-religious.

1.2 Existing Conditions of Facility

There are five silt traps constructed upstream of Kandy Lake around the time when the lake was constructed. Three of these structures are small while two are of medium scale. They are aging and show signs of potential threats to their safety. The silt traps located near Mahamaya College and the 'Red Culvert' in particular are damaged, silted up, undersized and have structural deficiencies, and therefore have been identified for rehabilitation (Annex 1). Once complete, the silt trapping system will consist of eight structures, together with the three silt traps that are in good order.

In terms of institutional responsibilities, the KMC has entrusted the Department of Irrigation (ID) with the responsibility of maintenance of the silt trapping structures. ID spends Rs. 12.4 Mn annually for upkeep of the silt traps.

Table 1. Frequency and Maintenance Cost of Existing Silt Traps

Location	Frequency	Cost (Rs. Mn)
Red Culvert Silt Trap	Once in 3 months	3
Mahamaya Silt Trap	Once in 4 months	2
Other Three Silt Traps	Monthly	6.4
Total		12.4

The silt traps in place do not have adequate capacity to cope with the current needs because of design limitations. The current needs are heightened by land development related to human settlements expansion. The existing silt traps can neither effectively control the velocity of the storm water communicated through the steep terrain nor contain the silt accompanied by erosion that find its way to the iconic Kandy Lake thus reducing the lake capacity.

Unregulated and unplanned human settlement expansion upstream in combination with sub-standard practices of household wastewater management and environmental management have exerted pressure on the silt traps and contributed to water pollution in the lake. Many households and business premises have chosen to connect the sewers and wastewater outlets to the canals connected to the silt traps.

Situated in a hilly terrain and in an environmentally sensitive region, Kandy City is faced with a serious challenge in environmental protection. Fresh water Kandy Lake, constructed in 1807, is silted due to erosion and remains in a state of pollution due to increased volumes of grey water and contaminated water entering the lake, presenting a threat to

human wellbeing as well as fish species. For example, in 1999 Mahamaya College was declared closed for one week due to the rotten fishes in the tank resulting from contaminated water that caused students to fall sick. From time to time the city population and the school community experience difficulties due to worsened pollution in the lake. On these occasions the KMC deploys boats and staff to collect dead fishes before they get rotten.

The latest occurrence of large scale death of fishes was in July 2015 that was telecast on ITN News. This news telecast has been uploaded in the official website of the Kandy City Wastewater Management Project.¹ Pictures dead fishes floating, KMC staff engaged in cleaning and scanned copy of a newspaper article on the subject are annexed to this report (Annex 2 and 3). No heavy machinery for extended periods is anticipated for deployment at the construction sites. The materials required would be of such quantities that could be organized on site.

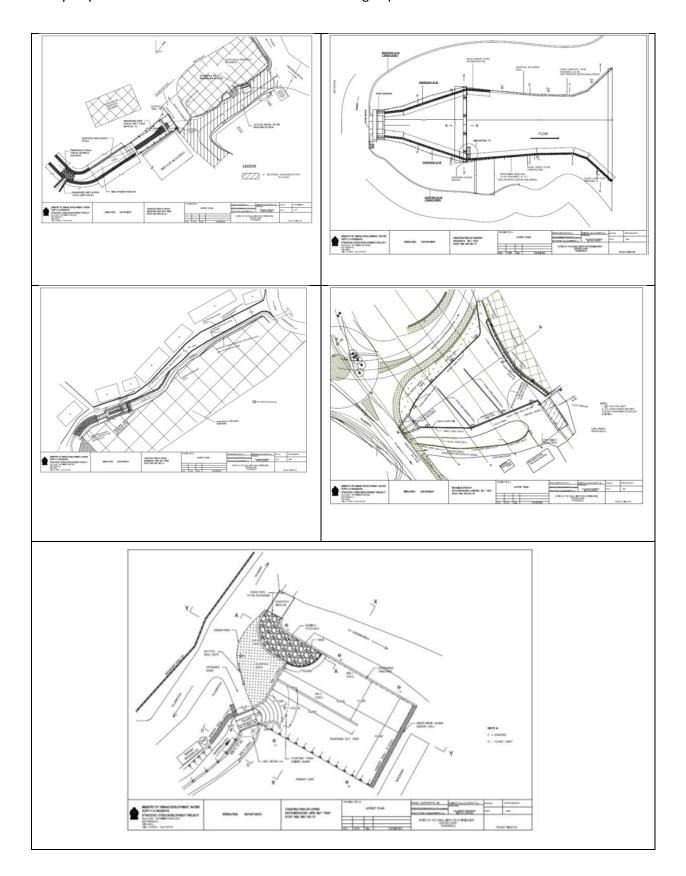
1.2.1 Scope of Proposed Civil Works

ID has prepared the designs, incorporated comments and suggestions including those of WB Mission, and secured approval by the authorities for the revised designs.

The silt traps are to be constructed according to different specifications and shapes depending on the engineering responses required to meet the specific needs of drainage under conditions of the particular terrain.

6

 $^{^{1}\}underline{https://www.facebook.com/kandywastewater/videos/vb.810485075679614/944363695625084/?type = 2\&theater$



The scope of work involves deepening and widening, de-silting, rehabilitation of construction of concrete structures, rubble / boulder packing, construction of Gabion walls for embankment protection, landscaping, handrails, trash booms, floodlights etc.

Table 2. Basic Details of Proposed Civil Works

Component	Hillwood Upper	Red Culvert Upper	Mahamaya Lower	Mahamaya Upper	Red Culvert Lower
	Qty	Qty	Qty	Qty	Qty
Thick Rubble Packing	375mm				
Retaining Wall	1 No. (52.6m length 3m height)	6 Nos. (RW1- 42m/6m, RW2-23m, RW3-15m, RW4-7m, RW5-10m and RW6-15m)	RHS - 114.08m; LHS - 36.4m		41.60m and 29.6m; on left side of existing road at 26.5m, 11.5m and 11m long; On Louis Peiris Mawatha 54.5m long
Removable Handrail	20.25m	J		94m	
Fixed Handrail	J		J		
Floating Debris Trash Boom	J	J		J	15m length
Boulder packing	J			J	
Sediment trap	13.8m length and 3m height				
Flood Lights	4 Nos.	6 Nos.	6 Nos.	4 Nos.	9 Nos.
Access Road	50m				
Culvert	5m width				

Rubble pitching	I			
Sediment trap	with 3.6m sediment depth		J	
Gabion Walls	2 Nos. (GBI- 12m and GBII-23m)		40m length	
Weir	10m			
Green mesh	l			
Dumping Area	l			
Grill Gate	5m×3m			
Foot bridge (trash removal)		10m		
Access bridge across the trap		25.30m		
Steps closer to Access Bridge		I		
Improvements to access road				I
Collapsible pavement on one side		1		
Gabion Canal Profile			20m	
Thick Screed Concrete			75mm	
Platform for excavation (Gravel Road)				1

Existing road metaling & tarring					J
Green mesh around the silt trap					2.35m height
Landscaping and turf making					J
Barrier Walls					23.20m and 20m length
Repair to existing walls					J
Cost of Work	Rs. 12.1 mn	Rs. 16.21 mn	Rs. 36.40 mn	Rs. 36.397 mn	Rs. 55.14 mn

The proposed activity concerns rehabilitation of two existing facilities with enhanced capacity and better facilities and the construction anew of three additional similar facilities.

This project is not linked to any other activity not funded by SCDP. However, the project sustainability is enhanced by the implementation of Kandy Wastewater Management Project in the Municipality that will result in a centralized and modern standard wastewater collection, treatment and disposal system that will also contribute to improved water quality in Kandy Lake.

No ancillary impacts or activities away from the sub-project site are anticipated.

The sub-project has a timeline of 18 months for completion, effective 15 January 2016.

Start Date of Construction	15 January 2016
End date of Construction	16 July 2017

3. Justification of Project Design and Alternative Analysis

3.1 Importance of Proposed Activity

The proposed activity is undertaken to rehabilitate two existing silt traps located just above the Kandy Lake and construct three additional ones upper stream with enhanced capacity to augment the existing silt trapping system capacity thereby effectively controlling silt deposition in the Kandy Lake to which storm water will be released in a

controlled manner. These structures will be capable of withstanding pressure from storm water gushing down the steep hills during rain as they are located at progressively higher locations. The sub-project also involves landscaping, embankment protection, and measures to enhance public safety whilst ensuring protection of the structures.

The existing silt traps identified for rehabilitation are worn out, have limited capacity to serve the principal function of trapping silt and release only fresh storm water to the lake. They had been built over 200 years ago and designed to control storm water drained through vegetation covered hills that were maintained as watershed under monarchical rule. During the modern period, the haphazard, unplanned and unregulated advances in land development and human settlement expansion have resulted in increased land erosion during rain that the existing silt traps are incapable of controlling. Some households (e.g. urban poor households in Hillwood Upper area) have diverted the wastewater drains to the canals. Together they present a threat to the integrity of the ecosystem, environmental sustainability and human social wellbeing. According to the Irrigation Department that is responsible for silt trap maintenance points out that it has difficulties in responding to the service needs given the capacity limitations as well as design weaknesses of the existing silt traps.

Identified locations for the construction of silt traps do not have adverse impacts on the people or their livelihoods because three sites are already existing silt traps and the balance two locations are already on the drainage path where no livelihood or any other human activity is involved.

Project will ensure that only fresh water will be drained to the lake, thus contributing to improved quality of water leading to healthy environment for the fish species in the lake as well as the people in the neighbourhood. Livability in the city will be significantly improved due to the freshwater lake being eventually restored to the original quality.

3.2 Resilience to Natural Disasters

Resilience to natural disasters of the sub-project is ensured by the adoption of best engineering practices guaranteeing quality of all construction ns including the overflow steps and Gabion walls to protect the banks from erosion. The existing silt traps will have enhanced capacity due to redesign and the construction of additional silt traps with better facilities for de-silting. Institutional capacity enhancement realized through the sub-project will ensure effective maintenance.

4. Corridor of Impacts

4.1 Impact Area

The extent of land covered by the five silt traps is about 150 perches, 30 perches each. Out of this extent, 120 perches belong to the Irrigation Department – the Project Partner Agency. This extent is constituted by the area under the two existing silt traps and one to be constructed.

The proposed land for the silt trap known as Red Culvert (Upper) located at Uguressapitiya, Nuwarawela, belongs to The Temple of Tooth. The land parcel is marshy, and has not been used for any activity as it is on the drainage path. The Municipal Commissioner has officially requested the Most Venerable Maha Nayaka for permission to do the construction and obtaining the particular land parcel on a long term lease leaving the possession intact with the Temple of the Tooth. The Temple authorities have consented to the proposed sub project and issued a letter addressed to the Municipal Commissioner enabling him to authorize the Department of Surveys to survey the land and prepare a block out plan to facilitate the land lease (Please refer Annex 07).

The Department of Surveys has been instructed to mark an area within five meters beyond the water spread as the reservation for the silt traps. For social screening, the immediate surroundings within 10 meters beyond the outer boundary of the pond spread was considered.

4.2 Impact Identification and Assessment

The silt traps are small structures located at different elevations along the drainage path of natural streams. Inclusive of the reservation the extent of land covered by these structures approximates 150 perches. These land parcels are no sites for economic, social or cultural activity. They are not of archaeological importance. It thus becomes at one clear that the proposed sub-project does not carry adverse social impacts where the specific construction sites are concerned. However, access to the construction sites are through the existing roads that pass through settlements and service centres. Therefore, there will be certain temporary inconveniences and disturbances to the public.

Early on steps were taken by the PMU to inform and consult the stakeholders – the highest administrative, political and religious authorities including the Heritage Committee² of the district and the province – and obtain their concurrence for implementation of the project. Eight levels of stakeholders were engaged in this process (Annex 4 and 5).

12

² Kandy Heritage Committee consists professionals, government officials, local political leaders, civil society organizations and community leaders

The social team commenced community consultations soon after the above event. They also had an audience with the Most Venerable Anu Nayaka Thero (Deputy Prelate of The Temple of Tooth) to explain about the project and obtain his concurrence for the project implementation. The team also discussed with other stakeholders such as the embers of the Heritage Committee, the GN and KMC field level officers. The community consultations were motivated by the need to (a) establish community contacts, (b) make the community aware of the proposed activity including potential impacts, and, (c) obtain community support for the project, and ideas on impact mitigation. These consultations took place at the household level, visits to institutions such as Buddhist temples and schools, key informant interviews and business owners / operators as well as informal interviews with commuters, parents at school gates, school van drivers and three wheel operators. In all, about 65 persons³ representing various groups of the community including the residents, service providers and commuters in three GN Divisions were engaged in the community consultation process (Annex 6). Project technical staff joined the social team to explain the designs and technical details to the community. Physical observation visits were undertaken.

Table 3. Participation in Community Consultations

5. No.	GN Division	Name of Silt Trap	No. of Males		Total No. of Participants
1	Ampitiya	Red Culvert Lower	09	04	13
2	North	Red Culvert Upper	14	03	17
3	Ampitiya	Mahamaya Upper	05	02	7
4	South	Mahamaya Lower	08	00	8
5	Malwatte	Hillwood Upper	11	09	20
	Total		47	18	65

The above consultations concluded that the identified sub-project locations are located on natural drainage path where there are no human settlements, built structures or agriculture or livelihood activities. Where land ownership is concerned, four out of the five identified sites belong to the KMC/ID whereas one location belongs to The Temple of Tooth. The temple authorities have consented to the providing the land parcel on a long-term lease and authorized the Municipal Commissioner to take the necessary steps. The community whilst welcoming the development activity expressed certain concerns about temporary disturbances from contractors engaged in the constructions that should be addressed during the project implementation. Some of these are perceptions and reflect

13

³ Details of 50 consultations are available in records, as summarized in Annex. Further community consultations are being organized, and attendance will be marked and documented.

general experiences. Nevertheless, they are important from social safeguards perspectives and are summarized in Table 4.

Table 4. Impact Identification and Assessment

Item of Impact	Core Impact	Indirect	Anticipated	Remarks
	Area	Impact Area	Impacts	
Obtaining Land	+	-	Due to the requirement for 30 perch land for construction of new silt trap Red Culvert Upper	Land belongs to Temple of Tooth; No agriculture, human habitation or livelihood activity; Temple Authorities agreed offer land on long lease
Infrastructure	_	+	Roads, utilities might be damaged accidentally by vehicles or workers	Other than Hillwood Upper, all sites are accessed through public roads with utility lines on sides
Noise & Vibration	++	++	Due to construction technology at sites and on transportation routes	
Transportation	++	++	Due to traffic congestion, increased risk of accidents, interruption of services and access to	in city centre area while others are in residential

			schools, pirivena, and parking spaces	Mahamaya Upper and Lower has no alternative routes; Hillwood Upper main road usage by construction vehicles (including parking) may affect the school girls and student monks who access the school and pirivena though this road
Public Security	+	++	Labour camps close to the sites needed for labour management to ensure timely completion of work; Inflow of workers may endanger public security	Worker behaviours may not be approved by community; students to Mahamaya and Hillwood girls' schools and Sngharaja pirivena may be vulnerable
Muck Disposal	-	++	May be left over in the neighbourhood or dumped in sensitive areas	ID has been depositing removed silt all this while, but new constructions may involve excavations / removal of earth; land available at

		F	Red	Culvert
		ι	Jpper	and
		1	.ower	

Code: +++ Major Impact; ++ Moderate Impact; + Minor Impact; - No Impact

4.3 Significant Impacts

(i) Improved Quality of Public Health

The implementation of the sub-project will lead to positive health outcomes and impacts due to environmental improvement realized through effective control of silt deposition in the lake that serves to restore the water level. With improved water quality in fresh water Kandy Lake, the aesthetic value of the city landscape will be enhanced contributing to improved quality of mental health in particular and quality of life of the population including the city residents, commuters and visitors / tourists. In the meantime the residential and business premises that presently have wastewater lines connected to the streams and canals would be encouraged to connect these to a centralized system being constructed under Kandy City Wastewater Management Project.

(ii) Improvement in Visual Quality of Landscape

Permanent, positive impact will occur in the visual setting of the landscape in the impact area due to the silt traps constructed anew with additional facilities according to improved designs of different shapes to merge with the particular terrain. They will create a system of shallow retention ponds upstream the natural drainage path that would be regularly maintained by the ID. Freshwater communicated to the Kandy Lake without sediments and muck will enhance the aesthetic value and environmental quality of the lake including the spill water flowing through the central canal.

(iii) Improved Property Safety and Sustainability of Drainage Infrastructure

Rehabilitation of drainage system as envisaged in the sub-project involving improved carrying capacity of the silt traps serves the city community in Kandy by way of relieving threats to private property from storm water induced floods and further impairment of silt trapping structures and the adjoining embankments. With increased number and capacity of silt traps in place the effectiveness of controlling the flow of storm water movement is enhanced. With improved maintenance systems the individual propensity for disposal of solid wastes and wastewater to these structures is unlikely thus contributing to safety of structures and clean environment. Further, soil erosion will be contained by the protection measures in the embankments where necessary.

(iv) Risks to Public Safety and Security

Although there is no resettlement or livelihood impairment, during the period of construction the public will be inconvenienced by dust, noise, disturbances, interruption of vehicular movement, traffic congestion, constrained access to vehicle parking places etc. Inflow of workers with temporary interests may disturb people's sense of personal security and safety of property.

(v) Loss of Land / Livelihood

Land in an extent of 30 perch that belongs to The Temple of Tooth is required to erect a silt trap at Red Culvert Upper. There is no structure, agriculture or any other livelihood activity or human habitation on this land. Keeping the possession intact, the land will be obtained on long term lease.

(vi) Land Instability

The presence of a system of silt traps also creates retention ponds. However, the proposed structures are small and include embankment protection via Gabion walls and improved turf and landscape as well as controlled spills. They are located in the existing drainage path. There is no case of formation of enhanced inundated area. Therefore, the chances for land instability due to the creation of silt traps are a remote possibility.

4.3.1 Impact Mitigation

Pursuant to the adoption of Social Management Framework that sets out the principles, guidelines and procedure for identification and assessment of potential social impacts and risks, and prepare mitigation plans as appropriate for different sub-projects, the PMU arranged for awareness creation targeting the primary and secondary stakeholders to prepare the mindset and ensure broad community support in favour of the proposed interventions including for social screening and potential impact assessment. The idea was to eventually prepare social management action plans to mitigate impacts with inputs from the Project Affected Community and institutional stakeholders.

Adoption of the above process resulted in the identification of impact locations, direct and indirect impacts as well as temporary and permanent impacts. Whereas the negative impacts were minimal, the positive impacts were overwhelming. The main impact is the permanent loss of land due to the siting of additional silt traps. Although loss of land could be a major impact, other intervening variables made it minor or negligible in this particular case. First of all, the land parcels are in the drainage path where no economic use is made of. Second, one land parcels belong to no private party but to institutions – the government (the ID or the project implementing agency) and The Temple of Tooth that is the main Buddhist institution in Sri Lanka that welcomes this type of interventions.

Third, the piece of land that is required for the construction covers 30 perches only and it forms a negligible part relative to the total land that belongs to The Temple of Tooth. At any rate, the land will be obtained on a long term lease with no incursions on ownership and possession.

Other impacts are temporary and generally minor or moderate. They are related to or incidental to the process of construction. The structures are of small scale. As such, they are confined to the specific sites and the period of construction. Some of the impacts identified by the community are perceptions based on general experiences of private contractors' behaviours. The social team has explained that other than concrete mixers and tippers no heavy machinery will be used. However, construction activities in the proximity of educational institutions, the usage of lanes and main roads for transport of construction materials, and the construction schedule of the individual contractors will continue be of particular concern to the public who are generally more informed, assertive and connected to the system than rural communities of Sri Lanka. To ensure timely completion of the scheduled work the contractors will organize temporary labour camps close to the construction sites. Water, sanitation and health needs of this group as well as community apprehensions arising from certain behaviours of such transitory groups should be properly managed and monitored by the contractor and the project authorities.

Table 5. Potential Environmental and Social Impacts and Proposed Mitigation Measures

Item of Impact	Anticipated Impact	Proposed Mitigation Measure	Responsibility
Land Loss / Restrictions on Uses	Requirement of land of 30 perches belonging to The Temple of Tooth.	Explain the project in detail to the Chief Monks, Diyawadana Nilame and Registrar; Obtain 'No Objection' letter to undertake proposed development; Enter into long term lease of the property; Follow guidelines in SMF and relevant government procedures	Municipal Commissioner DPD APD/ Social

Damage to Infrastructure	Public and private utilities may be damaged accidentally	Discuss with KMC, NWSDB regarding restoration of services on payment; Have skilled workmen and materials with the contractors to respond immediately; Conduct community consultative meetings before and during constructions; Involve community contact persons to inform of any damages to PMU – Kandy, and the latter to inform agencies and contractors and give feedback to complainant and community contact person	DPD / Kandy; Chief Engineer/ KMC; Chief Engineer/ ID; APD/ Social; Director/ NWSDB, Kandy; Contractor; Community volunteer coordinator
Transportation / Access limitations	Due to contractors' machinery, vehicles transporting materials and workers; Use of public and private spaces and main roads for parking machinery and vehicles; Heaping of materials silt and earth removed until cleared; Traffic congestion	Community consultative meetings before and during construction; Educate public on construction schedule and locations; Identify storage facilities and parking facilities away from main roads and lanes; Carry out construction work at night; Employ more workers and complete work early; Employ no heavy machinery	Contractor under supervision of the project consultant engineer; Contractor to inform the APD/ Social and obtain community support

Noise & Vibration	Drilling, Unloading construction materials, Vehicle movement and construction work may increase the noise level and dust	Control noise generation sources according to the approved standards; Avoid activities producing noise during sensitive periods (night, school opening and closing time); Develop a mechanism to record and respond to complaints; Use low noise vehicles; Cover removed earth before it rains; Use manual labour as much as possible	Contractor supervised by PMU and consultant engineer; APD/Social
Dust		Wet the area before and during working; Clean the roads and vegetation of dust after work	Contractor under supervision of PMU and Consultant Engineer and KMC
Public Safety	Communities may be exposed to risk in the event of structural failure or damage to property, and during the construction process due to movement of machinery and vehicles transporting construction materials etc. that may cause accidents; Presence of outsiders / workers temporarily resident may be risky for the neighbourhood communities	Make the drivers and worker aware of community concerns; Adopt best practices in engineering designs including for embankment protection; Introduce speed limits; Sound warning signals and sirens; Place traffic signs along access roads; Obtain traffic police assistance in place at schools for traffic management; Register the workers with authorities and employ supervisor;	Contractor supervised by PMU and consultant engineer and KMC

Property Damage	Private and public property may be accidentally damaged	Reinstate/ repair at contractor's cost under supervision of owner	Contractor supervised by Engineer in consultation with owner
Health and Sanitation	Increased interaction between workers and community may cause health issues; Worker camps without adequate sanitation could introduce health issues; Alcohol taking and other social behaviours of workers could create problems	Worker education and awareness building; Locate worker camps outside the residential areas; Consult KMC for locating labour camps; Subject workers for supervision	Contractor; APD/ Social; Community volunteer work; KMC PHI
Muck Disposal / Wastes Pollution	Wastes may be left at construction sites, especially upstream or dumped in sensitive areas	Get KMC to dispose some materials; Dispose silt at sites ID identifies; Dispose solid wastes appropriately; Allow contractor to identify dumping sites and come to arrangements with owners; Send project social team with environment officers for suitability checks	Contractor under supervision of project consultant engineer; KMC environmental officer; APD/ Social; Community volunteer work; KMC PHI

Although there is no land loss, structural loss or loss of livelihood due to the sub-project there could be temporary social impacts during the period of construction as described above. Continued community consultation and engagement would be necessary which should be part of the responsibility of the contractor. Spontaneous public protests and individual complaints should be averted for the planned constructions to be implemented without any hindrance. Based on the SSR therefore a schedule of activities in respect of mitigation of identified adverse social impacts would be prepared that will be treated as an essential part of the Contracts to be entered with the service providers.

4.3.2 Public Disclosure and Information Dissemination

Disclosure of information and maintenance of transparency is a cardinal principle of the SCDP governance ideology, the National Involuntary Resettlement Policy and the World Bank Resettlement Policy Framework. The main social significance of the Information Disclosure Policy is that when the Project Authorities maintain transparency in project implementation it produces mutual trust outcomes between the PAPs and the Stakeholders. Problems that occur in the implementation process can thereby be effectively and efficiently resolved and implementation delays circumvented. It contributes to local ownership of externally initiated projects as well as convergence by the time the project is concluded and commissioned. SCDP is taking every step to disclose information to the public. SSR, once complete, will be public document containing accurate, updated and reliable information

4.3.3 Grievance Redress Mechanism

Though all signs are positive in terms of social soundness of the project, the PAPs may raise questions of eligibility and entitlements. It is extremely important to address such grievances in a timely and transparent manner to ensure smooth implementation of the sub-project. An institutional mechanism with step by step procedures has been identified and will be streamlined in due course.

Further, the public will be informed about the sub project level GRM to lodge complaints in the event of project created inconveniences or interruption of utility services. Measures have been proposed to address construction related temporary impacts. The proposed GRC will be represented a representative from the Irrigation Department, Representative from KMC, Engineer representative from the contractors side, Grama Niladai,APD/Social-SCDP and three community coordinators to represent five silt traps. (The GRC will be planned to orient with the contract awarding)

4.4 Socio-Economic Profile

The sub project involving the construction of five silt traps will cover a small extent of land (150 perches) that come within three GN Divisions – Ampitiya North, Ampitiya South and Malwatta that come under the authority of the Gangawatakorale Divisional Secretariat Division. In these sites there are no human activity or settlements. Therefore, the socioeconomic profile here is painted with a broad brush and going beyond the defined impact area of 10 meters above the water spread of the silt traps.

According to the knowledgeable persons, the total population of the resident households in the vicinity of the project area is about 420 persons. Majority of the population is Sinhalese who are mostly Buddhist. There are several households that belong to Muslim and Tamil ethnic groups. Starting from the uppermost silt trap location of Hillwood Upper, the area is inhabited by people who constitute a low end sub-stratum of the Kandy business community. This area is relatively heavily populated. Further down the drainage path, the area comprises of residential and commercial establishments, varying in scale, and institutions such as temples, educational establishments and government administrative service centers. Leading hotels and various other business establishments including banks are also located in the area. Generally, the livelihoods of the residents of the area surrounding the locations identified for construction are closely linked with the day to day affairs of the city. None of these households or establishments are affected in terms of loss of land, structures or livelihood. Table 6 profiles the individual silt trap surroundings in social terms.

Table 6. Basic Social Profile of Area of Sub-project Area

Silt Trap Location	No. & Type of Structures in the Vicinity
Hillwood Upper	Dhamma School of Sangaraja Piriwena (1 No.) Hillwood College and Gothami Balika Vidyalaya (2 Nos.) Guest Houses (5 Nos.) Residential Houses (Nos.)
Mahamaya Upper	School Hostel (1 No.) nearby Government Office (1 No.), Residential Houses (12 Nos.)
Red Culvert Upper	Population (150 persons, including three wheel stands, school vans, visitors etc) Residential Houses (20 Nos.) Temples (2 No.) Retail Shops (7 No.) "Sanasa" Bank (1 No.) Concrete brick manufacturing place (1 No.) temporay Land owned by Dalada Maligawa
Mahamaya Lower	Population (100 persons) Residential Houses (8 Nos.) Government Office (1 No.) Private Education Centre (1 No.) Mahamaya College Hostel (1 No.)
Red Culvert Lower	Population (120 persons) Houses (25 Nos.) Guest house (1 No.) Government building (1 No.)

Shops (3 Nos.)
Playground (1 No.)
Children's park (1 No.)

4.5 Social Acceptance of Sub-Project

The sub-project earned community acceptance as a result of the interactions that took place between the project authorities and the community as represented by various groups. Before the consultations, generally, the people interviewed did not know about the presence of the silt traps, location or their functions though they had seen the structures. The PMU initiated key stakeholder consultations and continued with awareness building as the sub-project design process was on-going. The PMU Social Development Team together with the project technical staff members visited the specific sites to explain about the details of the construction works planned and the best practices that would be adopted to ensure quality standards in construction works. The discussions as a rule began with the less than satisfactory existing conditions that need durable solutions. The temporary disturbances to public life during the period of construction were discussed including ideas for impact mitigation. People were also informed that the construction work will be so organized or packaged enabling local service providers to undertake them.

At the beginning the people were puzzled because they have not had such organized meetings or encounters with authorities before. Especially, they regularly witness the workers removing the silt accumulated in the silt traps. On such occasions no special arrangements had been made to alert the people or provide any special assistance. However, with the common experience in terms of impacts from water pollution, contamination in the Kandy Lake, soil erosion, floods mixed with dirt and polluted wastewater, traffic congestion in the city, the people appreciated the SCDP intervention to improve the upstream silt traps that will contribute to enhance water quality of the Kandy Lakeand the action taken to inform and consult the public.

The upstream communities in particular were appreciative of the construction of silt traps in the particular locations. Downstream inundation of the road near Mahamaya Lower during rain is a nuisance to the public including the school community. People are aware that as individuals they are incapable of addressing the issues and appreciated the implementation of the sub-project.

Further, the proposed activities would take place on the existing drainage pathways where some structures are already in place. One of the sites identified for construction of a silt trap, however, is a lowland that belongs to The Temple of Tooth. In a discussion that was carried out to inform the proposed development the Most Venerable Maha Nayaka

voluntarily agreed to offer the required extent of 30 perches to contribute public welfare. Other than this case, there was neither land nor property acquisition, resettlement, nor archaeological sites, artefacts, symbols affected due to the designed sub-project. There are no households or families rendered vulnerable by the proposed activity that would require Resettlement Action Plan. The area has no indigenous people. Apart from temporary disturbances, community livelihoods are not impacted by the implementation of the sub-project. Therefore, the communities of the impact area including the religious institutions, educational institutions and business establishments in the neighborhood have agreed with the implementation of the proposed activity and pledged cooperation to ensure smooth implementation.

Kandy Heritage Committee at its meeting on 27 November 2015 was exposed to the finalized designs of the sub-project and a discussion on the relevant details. Following discussions at this forum the Heritage Committee resolved to endorse the implementation of the sub-project.⁴

Community expects that the sub-project will offer employment opportunities in the unskilled category and certain categories of skilled labor. However, the people are aware that only a limited number of labor work will be available.

5. Social Screening Checklist

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Details
Will the sub-project include any physical construction work?	٧			
Does the sub-project include upgrading or rehabilitation of existing physical facilities?	٧			
Is the sub-project likely to cause any damage to or loss of housing, other assets, resource use?		٧		
Is the site for chosen for this work free from encumbrances and is in possession of the government/Municipality?	٧			1 site owned by temple
If the site is privately owned, will this be purchased or obtained through voluntary donation?		٧		30 perches on long term lease
If the land parcel has to be acquired, is the actual plot size and ownership status known?	٧			
Is land for material mobilization or transport for the civil work available within the existing plot/ Right of Way?	٧			

⁴ Official minutes of the meeting will be annexed to the SSR upon receipt of the same and before public disclosure.

25

Are there any non-titled people who living/doing		V	
business on the proposed site for civil work?			
Will there be loss of /damage to agricultural lands,		٧	
standing crops, trees?			
Will there be loss of incomes and livelihoods?		٧	
Will people permanently or temporarily lose access to	√ ⁵		Temporary
facilities, services, or natural resources?			access
			provided as
			needed
Does the Urban Local Body have its own procedures		V	needed
,		V	
for land acquisition?			
Are there any previous land acquisitions I under this		٧	
subproject?			
Any indigenous people affected?		٧	
Whether the affected land/structure owners likely to	٧		
lose less than 10% of their land/structure area.			
If so, are these land / structure owners willing to		√ ⁶	
voluntarily donate the required land for this sub-			
project?			
Is any temporary impact likely?	٧		

6. Estimates of Specific Impacts

Components of the Sub Project	Site Clearing	Earthwork	Construction of Structures
Private land required (Sq. m.)	0	0	30 perches
No. of land owners losing more than 10% of land area	0	0	0
Government land required (Sq. m.)	0	0	0
Forest land required (Sq. m.)	0	0	0
No of houses affected	0	0	0
No of shops affected	0	0	0
No of other structures affected	0	0	0
No of squatters affected	0	0	0
Public utilities affected	0	0	0

26

 $^{^{\}rm 5}$ Only confined to brief periods when civil works are undertaken in the neighborhood

⁶ Land belonging to the Buddhist Order will be obtained under a long term lease as permitted by Law.

7. Information on Affected Persons

Any estimate of the likely number of households that will be affected by the sub project?

- [] No. [X] Yes. If yes, approximately how many? One (Malwatte Temple)
- No. of HHs losing <10% of their productive assets:
 - o (land/cowshed/shops): **None**
- No. of HHs losing 10% or more of their productive assets? **None**

Are any vulnerable households affected? [X] No. [] Yes.(If yes, please briefly describe their situation with estimated numbers of HHs.)

What are the needs and priorities for social and economic betterment of vulnerable people who are affected by this project?

No person is rendered vulnerable due to the implementation of the sub-project.

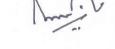
8. Decision on Categorization

After reviewing the answers above, it is determined that the sub project is:

- [] Categorized as an 'A' project, a full resettlement plan is required
- [] Categorized as a 'B' project, a short resettlement plan is required

 $[\mathbf{X}]$ Categorized as an 'C' project, no RP is required, Only Due Diligence Report is required

Prepared By:

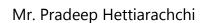


Dr. Gamini Wickramasinghe

(Consultant)

Date: 11th .Dec. 2015

Recommended by:



Deputy Project Director / Social, SCDP

Date: 15th Dec. 2015

Approved By:

Archt. Anura Dassanayake

Project Director / SCDP

Date: 15th Dec. 2015

Annex 1: Identified Locations for the Sub Project



Figure 2. Mahamaya Lower



Figure 3. Red Culvert Lower



Figure 4. Red Culvert Upper



Figure 5. Hillwood Upper



Figure 6. Mahamaya Upper

Annex 2: Pollution of Kandy Lake



Figure 7. Effect of Pollution in Kandy Lake



Figure 8. KMC Staff Removing Dead Fishes in Kandy Lake

Annex 3: Newspaper Article on Odour from Dead Fishes in Kandy Lake



Figure 9. Newspaper Article on Kandy Lake Pollution

Annex4: Stakeholder Identification and Consultation

Name	Institution	Jurisdiction	Position
Ven. Thibbatuwawe Sumangala	Malwatte Chapter	Sri Lanka	Maha Nayaka
Ven. Ven.	Udarata	Up Country	Maha Nayaka
Niyangoda Vijithasiri	Amarapura Sngha Sabhava		
Mr. Nilanga Dela	Sri Dalada Maligawa	Central Province	Diyawadana Nilame
Mr. Gamini Senevirathne	District Secretariat, Ministry of Home Affairs	Kandy District	District Secretary
Hon. Mahendra Rathwatte	Municipal Council	Kandy Municipality	Mayor
Mr. Chandana Tennekoon	Municipal Council	Kandy Municipality	Municipal Commissioner
Mr. Palitha Abeykoon	Municipal Council	Kandy Municipality	Chief Engineer
Mr. Thalgahagoda	Municipal Council	Kandy Municipality	Land Officer
Mr. Palugaswewa	Irrigation Dpt.	Kandy Region	Provincial Director
Mr. Mediwaka	Irrigation Dpt.	Kandy Region	Chief Engineer
Mr. R.M.S.B.	Dpt. of Surveys	Kandy	Senior Survey
Rathnayake			Superintend
Mr. Chamika Perera	Police Department	Kandy Division	ASP - Traffic
Mr. Bandara	Divisional	Gangawata Korale	Divisional
	Secretariat		Secretary
Mr. J. Ratnayake	UDA	Kndy	Chief Engineer
Mr. Namal	KMC-Solid Waste	Kandy Municipality	Chief Engineer
Dissanayake	Management Unit		

Annex 5: Stakeholder Consultations: Views, Decisions and Outcomes

Institutional	Date of	Officials	Matters Discussed	Decisions/
Stakeholders	Consultation	Consulted		Outcomes
Department of Irrigation	03/09/2014	Chief Engineer	Information on existing silt traps, Maintenance and related issues	Accessed information
Sri Dalada Maligawa	09/09/2014	Hon. Diyawadana Nilame	Explain project; Obtain 30 perch land for silt trap construction;	No objection; Organized meeting with Dy. High Prelate
Kandy Municipal Council	14/09/2014	Hon. Mayor	Meeting with Anu Nayaka; Arrangements; Consent letter pending formal agreement with KMC	Consent to meet Temple Authorities to get required land; Obtained consent letter
Kandy Municipal Council	19/09/2014	Municipal Commissioner	Land Survey and block plan	Instructions to Land Division to survey the land prepare plan
Divisional Secretariat	16/10/2014	Grama Niladari	Identification and Confirmation on land boundary for Rathu Bokkuwa silt trap	Determined boundary for silt trap
Kandy Municipal Council	16/11/2014	Chief Engineer, Land Officer	KMC cooperation to survey temple land to facilitate lease	Initial work for land survey started
Malwatta Temple	10/12/2014	Registrar and Land Officials	Explain project; Obtain clarification on land ownership; Facilitate lease	Agreed to meet Hon. DN to explain arrangements
Asgiriya Temple	10/12/2014	Registrar and Land Officials	Explain project; Obtain clarification on land ownership; Facilitate lease	Agreed to meet Hon. DN to explain arrangements

Heritage Committee	27/12/2014	Members	Explain project; Convince project involves no impacts on culture and heritage sites; Obtain cooperation	Members gained knowledge of the project and expressed support pending formal designs
Farmer Organization		Chairman	Observations on land use of wetland area; Explain project	Confirmation no farming practiced

Annex 6: Community Consultations: Names, Places and Representations

Ailliex U.			-	Representations
Date	Name and	Place of	Representatio	Decisions/Outcom
	Position	Consultation	n	es
5/6/2015	Most Ven. Niyangoda Vijithasiri Anunayake Thero of Malwatta Chapter, Siyam Nikaya	Bhikshu Pirivena	The Temple of The Tooth	Anunayake Thero gave concurrence and consented to release the required parcel of land for the silt trap
	Mr.R.M.Kithsiri	Residence, Nuwarawela	Household	Agreed to support
	Mr. Hewarathne	Residence	Household	Agreed to support;
	Mr.Waruna Dissanayake, Member/KMC	Rathubokkuwa ground	Local Politial Authority	Noted need for impact mitigation
5/7/2015	Most Ven. Thibbatuwawe Sri Sumangala, Maha Nayaka of Malwatta Chapter, Siyam Nikaya	Nila Aramaya	The Temple of Tooth	Gave concurrence and blessings; Expressed satisfaction over improved service by KMC; Consented to give land
14/7/201	S.P. Bandara	Residence	Household	Agreed to support;
5	W.B.K.C. Weerasinghe A.P. Chandrasekara A.S.C. de Silva Shiroma de Silva S.V.N de Silva			Noted need for impact mitigation
	President, Sanasa Bank, Nuwarawela	Sanasa Bank,Nuwarawel a	Business Premises	
	H.M. Punchihewa (GN)	GN Office	Local Administration	
	Manager, Nuwarawela Co- operative	Nuwarawela Co- operative	Business Premises	

	Manager, LITRO GAS, Nuwarawel a Manager, Rural Bank Nuwarawela T.S.P. Thalewela J.P.K. Rajapathirana Gunaratne Madarasinghe	LITRO GAS,Nuwarawel a Rural Bank Nuwarawela Residence	Business Premises Business Premises Household	
7/8/2015	Most Ven. Thibbatuwawe Sri Sumangala, Maha Nayaka of Malwatta Chapter, Siyam Nikaya	Nila Aramaya	The Temple of Tooth	Consented to offer land and advised to take necessary steps for leasing
10/8/201 5	S.B. Rideemahaliyadd a Chandana Perera Samantha Nawaratne L.Karunaratne Weerakoon, Bus Driver Dassanayaka, Bus Driver	Three Wheel Park Vehicle Parking Area	Transport Service	Expressed satisfaction over the proposed improvement; Warned on Traffic congestion due to construction vehicles; Suggested night work for construction
7/9/2015	Principal	Mahamaya Girls School	School Community	Expressed satisfaction over improved silt traps; Agreed to support; Suggested school community awareness before construction, and Scheduling construction for school vacation

10/9/201 5	H.G. Maarasinghe Asanka Kumara Ekanayake	Three wheel Park	Transport Service	Expressed satisfaction; Warned of impacts during construction
	Gunasena, Lorry Driver	Work Place		
	A.A. Munasinghe	Residence	Household	
11/9/201 5	L.K.I.A. Kumara	Three wheel	Transport Service	Three-wheeler parking space will be affected
	S.U.S. Bandara C. Ramachandran	Park		
	R.M.A. Madhushanka			
	R.K.L Aruna Kumara			
	Sunil Wickramasinghe			
	K.W.A.I. Wijwsiri			
	E.M. Anes			
	A.U.Fernando		Farming	
	T.S.P.Thalewela		Community, Nuwarawela	
	D.M.S.B.			
	Dissanayake			
	Nimal			
	Siriwardhane			
	Wijekoon Banda			
	B.B. Jayasundara	5 111		
4/11/201 5	P.L.L. Liyanage	Bus Halt	Commuters	Community welcomed
	P.G. Premaratne	Mahamaya Girls School	Security Service	the project; Staff of the nursing
	P.M. Nawaratne	Three wheel Park	Transport Service	home expressed concern over access
	S. Gettapola	Mahamaya Girls Shool		and traffic congestion, and
	Dilrukshi Dissanayake	Lakeside Hospittal		requested attention

Annex 7: Consent Letter from The Temple of Tooth

මල්වතු මහා විස	වාරය – මහනුවර – ශු ලංකාව VIHARAYA - KANDY - SRI LANKA			
COMORG :				
අංකය : ඔබේ	Telephone:			
මගේ	@. <u>2</u> . 205 :			
	000000 000 2014.12.17.			
් , ගරු නගරාධිපතිතුමා, මහනගර සභාව, මහනුවර.				
	වර, මත නගර සීමාව තුළ පිහිටි 			
නුවරවෙල උගුරැ	ස්සපිටිය වගුරුබිමෙහි පොකුණක් ඉදිකිරීම			
උක්ත කාරණය සම්බන්ධයෙන් වූ ඔබතුමාගේ 2014-11-24 දිනැති ලිපියේ මා වෙත එවන ලද පිටපතට පිළිතුරු වශයෙනි.				
මේ සම්බන්ධයෙන් ආරක්ෂක අමාත්තාංශයේ නිලධාරීන් සිව්දෙනෙකු අප හමුවී කරුණු දන්වා සිටින ලදී.				
මෙම වගුරු බිමෙහි පර්චස්	30ක පමණ පුමාණයක සකස් කරන පොකුණට අවශා වීම්			
කොටස මැන පිඹුරු පත සකස් කිරීම සඳහා අපගේ කැමැත්ත පුකාශ කරන බව මෙයින් දන්වා සිටිමු.				
මුබතුමාට පෙ	තරුවන් සරණයි. දළඳා සමිඳු පිහිටයි.			
පිටපත්:	මේ වගට,			
1 අතිගුරු ශීමත් මහානායක මාහිමිය	හාණන් වහන්සේ, මල්වතු මහා විහාරයම් මි හිනුවර් ලදෑම් වැන්සේ, සාණන් වහන්සේ, අසිගිරි මහා විහාරය, මහනුවර් ඇ ති නු විතාරය. ආණන්			