

## **A Study on Infrastructure Development in the Muthur Divisional Secretariat Division Trincomalee**

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### **Abstract**

The main objective of the study is to identify the infrastructure facilities brought down from outside and maintained and the ones locally available in selected areas in the Muthur Divisional Secretariat Division and to upgrade their living standards to the people in urban areas under long term plan. The factors which stimulate me to take this title as the people living in areas where the samples have been collected are lack of almost all basic infrastructure facilities in the millennium world where every thing has been computerized.

It struck in my mind that a qualitative questionnaire only can bring the actual position of the infrastructure facilities available and accessible to the people in the area because these areas have been backward areas for a long period. The questionnaire has been designed with the motive of collecting the actual situation of the infrastructure facilities and their availability to all people living in these areas with the conceptualization framework based on the 5 dependent variables water, shelter, transport, electricity and telecommunication. Data collected by various methods viz. issuing printed questionnaires and interaction with the people of these areas, interviews with relevant authorities, independent observation

etc. and the scope of the area selected and covered has been 15 Grama Niladhari Divisions in Muthur Divisional Secretariat Division. And various mode of analysis are able to perform to a fundamental using the packages of SPSS & EXCEL.

Most of the people living in the areas use well water for drinking and domestic purposes and salt water for bathing, washing etc. Most of the houses are made out of clay and thatched with hadjans or corrugated tin sheets. Only a very few public/private transport services are available. Electricity supply is not available to many areas and many people do not use electricity due to high cost. Many people have mobile phones very recently introduced but land phone users are a very few. Maintenances of all these services are very poor. Other essential services such as Hospital, Market, Banks and Post Office are far away from these villages.

Undoubtedly, Water and Shelter are very important for every human being other things such as transport, electricity and telecommunications come later. Most of the people are depending mostly on well water and have houses made of clay and thatched with hadjans or corrugated tin sheets. Most of the electricity users use the minimum for lighting purpose alone due to heavy electricity charges. Transport is very poor compared to other areas all sections of people are suffered as far as transported is concerned. Most of the younger generations are using cell phones as they are available abundantly and easily. Permanent and reliable lines telephone services are very poor and not gettable easily.

Purification of water from water reservoirs and wells is very important to supply hygienically good drinking water to residents of these areas. Clay and Hadjan/Tin sheet houses should be converted into safety shelters made out of Cement Block and Asbestos or tile houses to safe the people from rainy season from leaks and washing away by rainwater. Transport facilities to be increased more omni buses should ply on the roads and inroads. Action should be taken to provide uninterrupted power supply to the existing consumers and places. Usage of wire phones should be increased as they are the permanent and reliable ones.

## **Introduction**

### **1.1 Background**

This chapter explains about each infrastructure, a brief description of the sample area, problem statement, significance of the study and the assumptions and limitations. After the independence from the Britishers' colonial rule Sri Lanka started to develop its own economy through various developmental programmes under different Governments using different economic policies such as, Capitalist, Socialist and Mixed economy. The GDP rate in 1999 was 3.7% and in 2003 it was 5.2%. Insufficient infrastructure facilities have been one of the factors that have affected the growth of the Sri Lanka's economic expansion. Resource constraints caused by the continuing military conflict in East since 1983 curtailed the development of key economic infrastructure sectors to a large extent.

For a rapid growth of economy, a well structured system of infrastructure is required to generate a series of tradable services and supports poverty alleviation by increasing access to both input and output markets.

#### **Infrastructure includes:**

- ◇ Transport
- ◇ Electricity
- ◇ Water supply
- ◇ Telecommunication
- ◇ Shelter

#### **Water Supply**

The demand for water supply is growing rapidly due to the expansion in the population as well as due to the escalating demand from the commercial and industrial sectors.

The National Water Supply & Drainage Board is the prime institution responsible for planning, designing, constructing, operating and maintaining the water supply facilities in the country. The proportion

of households with access to an improved water sources was about 71 per cent in 2004, of which, only about 28 per cent had access to pipe borne water.

### **Electricity**

Electricity involves in the production and delivery of electrical energy. In short all machines the gadgets that work with startling speed and accuracy to make our life and living worthwhile need electricity. In 2004, the electricity sector suffered from the twin shocks of the drought and high petroleum prices, which increased cost of production. Sri Lanka needs to increase the power generating capacity by over 10 per cent annually to meet the growing demand for electricity to achieve the anticipated medium term economic growth rate of above 6 per cent to increased thermal power from existing plants as well as from energy plants.

### **Transport**

Transportation is a vital component of economic infrastructure, having strong linkages to economic and social development by providing access to input and output markets as well as to public services throughout the country. The transport network comprises highways, bus routes and railways, shipping network and air transportation. Air transport and maritime transport are used mostly for international and regional transport. In Sri Lanka, the transport sector contributes about 8 per cent to the GDP.

**Road Development:** Roads in Sri Lanka are in need of significant improvements in quality. They are in a poor condition mainly due to the lack of regular maintenance, excessive delays in implementing planned projects of road construction and rehabilitation and insufficient funds. The Road Development Authority (RDA) is responsible for the development of the national road network.

Benefiting from the ceasefire, both internal and international air travel increased during the last three years. Three domestic airlines continued to operate during 2004.

**Telecommunication**

Telecommunication has been one of the fastest growing sectors in the economy. The traditional forms of telecommunication such as Fixed phone, telegraphs, cables etc. are being replaced by more sophisticated telecommunication devices and computer-based methods of information transfer, such as e-mail, internet, video-conferencing, wireless technology etc. in recent years. Telecommunication services grew remarkably in 2005 supported by the introduction of Code Division Multiple Access (CDMA) technology and the rapid expansion of mobile telephones.

Several telecommunications projects were in progress in 2005 to further expand telecommunication facilities in the country. Construction of a submarine cable system between India and Sri Lanka was initiated in September 2005.

**Housing**

The demand for houses and the expansion of the urban sector increases with continuing population growth and economic development. The demand for new houses in Sri Lanka is rising at around 100,000 units per year. In addition, there is a need for meeting a large pent up demand and a large number of sub-standard houses require upgrading. As per the latest Census of Housing and Population survey conducted in 2001, the shortage of housing was 218,295 units with an additional 1,325,880 sub-standard units requiring improvements.

Further, the Tsunami disaster of December 2004 completely destroyed 70,637 houses while another 30,839 units were partially damaged.

The Government plays a facilitator role in the housing sector. The Ministry of Housing and Construction pays attention to issues such as land for housing, resource mobilization for housing finance, developing infrastructure and other services, cost effective technology development and simplification of approval procedures. The government is also

### **A Brief Description of Muthur Divisional Secretariat Division**

Muthur is one of the 11 Divisional Secretary's Divisions in Trincomalee District. It covers the land area of 179.4 square kilometers and it comprises 42 Grama Sevaka Divisions in 48 villages. Muthur is bounded by border villages on the North: Sudakkuda; East: Nallur South: Kiliveddi and West: Iralkuli. Compared with other areas the living standard of the people in the selected 10 G.S Divisions are at very low level and the economic development is also very poor. There are various communities such as Tamils, Muslims and Sinhalese. Many of them are under poverty line and Samudhi recipients. Infrastructure facilities are inadequate to serve the population in a wide area like this.

#### **1.2 Problem Statement**

In this area, the selected 15 G.S Divisions no new investment have been taken place for years. The infrastructure facilities already available were also discarded and not maintained properly. They are unaware of new technologies and latest development of technological advancement due to non availability of educational facilities. Though the area is wide owing to irrigation problems such as non availability of irrigation channels or water reservoirs to irrigate the lands the cultivators of this area are completely depending on rain water and they grow only seasonal crops depending on the availability water. Due to the prolonged civil war many people lost their houses, assets, jobs and dear ones and became refugees and depending of charity funds and living in rehabilitation camps. Furthermost this area was one of the worst hit Tsunami areas in the Eastern Province.

#### **1.3 Significance of the Study**

The purpose of the study is to develop the infrastructure facilities in order to create a conducive environment to start development projects in the fields of Education, Industries, Modernization of Fishing and Agriculture etc., to find employment to the village people to get jobs and permanent income and thereby uplift their living standards. Initially, it is the infrastructure that should be developed to bring in the investors to start their projects. The infrastructures are mainly Transport and Telecommunication, Electricity and Water Services and Shelters. While

initiating and establishing the infrastructure it automatically provide job opportunities to the educated and uneducated people of this area and giving them chances to learn the technologies to enable them to engage in maintaining the infrastructure for future developments and prolong use. In the development of infrastructure the resources available locally could be utilized to enable the people living in these areas to make money as well as to develop their knowledge.

#### **1.4 Objectives**

- ❖ To identify the infrastructure facilities locally available in the selected area in the Muthur Divisional Secretariat Division and to develop them under short term and long term plans.
- ❖ To recommend strategies for the infrastructure development in the Muthur Divisional Secretariat Division.

#### **1.5 Limitations**

- The research considers only 15 G.N. Divisions due to difficulty in completely identifying the areas.
- The sample size restricted to 150. This size has been taken from the population for my convenience. Therefore, it would be difficult to ensure that the final solution would be an accurate one.
- Time was insufficient to collect all the information required in order to cover the entire infrastructure. Such as, electricity, transport, telecommunication, water supply & housing.
- Traveling to all relevant institutions to collect information was very difficult due to the prevailing unsettled conditions i.e. intermittent civil disturbances.
- Questionnaires will be issued only in Tamil language because; native language of the people living in these areas is Tamil.

#### **Assumptions**

- The data collected from all resources are true and correct.
- No changes in Government policies.

- No changes in economic conditions; interest rate, inflation and living standard.
- The samples received from 15 G.N. Divisions in Muthur Divisional Secretariat Division.
- The structure of the administrative set up in Departments. (Centrally, Provincially and Regionally)

### **Conceptualization and Methodology**

#### **3.1 Introduction**

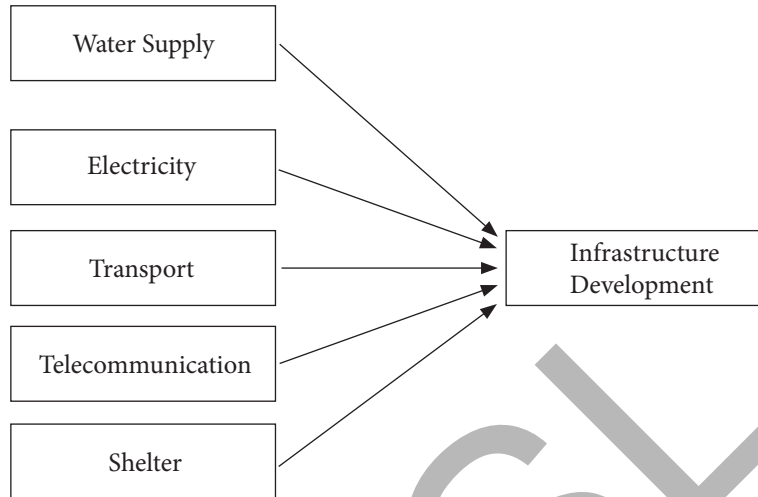
This chapter describes the qualitative research approach specifically designed to evaluate proper data of Infrastructure in Muthur Divisional Secretariat Division. The necessary and relevant data is collected to study and analyze infrastructure in Muthur.

It is a model which entails theoretical principals as well as framework. A descriptive methodology tells about the technical aspects of the study. It tells us what was done to solve the problems. It aims at satisfying the criteria of reliability – that is, providing so much information. Such as, what samples, were used, how sample was conducted (type of samples, its size and a brief description of the methodology), why they were selected, how and where the data were collected, what were the techniques used and what was their outcome, etc. In this study the dependent variable is induced Development of infrastructure in the Muthur Divisional Secretariat Division. And the dependent variables are the Electricity, Transport, Telecommunication, Water Supply and Shelter.

#### **3.2 Conceptualization**

Generally, the infrastructure development is a dependent variable with influencing factors. In this study concerned water supply, electricity, transport, telecommunication and shelter are the variables which influences on infrastructure development. These variables, which are contributing to the infrastructure development. In this study the conceptualization is developed by using 5 groups of dimensions that have been linked to infrastructure development.





(Source: Developed for the research purpose)

**Fig : 3.1** Conceptualization Framework

Conceptualization has two variables one is dependent variable and other one is independent variable.

**Development of Infrastructure:** Development includes expanding and improving existing Infrastructure and introducing new Infrastructure.

**Infrastructure:** Infrastructure can be defined as stock of fixed capital equipment in a country. For Example Roads, Railways, Power stations and water supply are included in the infrastructure of a country.

**Development:** Growth of positive changes in different elements of a society. Such as, economic, social, political and cultural elements. Development refers to both economic growth and social changes.

**Telecommunications:** devices and systems that transmit electronic or optical signals across long distances. Telecommunications enables people around the world to contact one another, to access information instantly and to communicate from remote areas.

**Housing (shelter):** permanent shelter for human habitation. Because shelter is necessary to everyone, the problem of providing adequate housing has long been a concern, not only of individuals but of governments as well.

**Transport** : movement of people and goods from one location to another. Throughout history, the economic wealth and military power of a people or a nation have been closely tied to efficient methods of transportation.

**Water:** (in its pure form) is a tasteless, odorless substance that is essential to all known forms of life, is known as the universal solvent and is the main natural resource said to be affected by Global Warming.

**Electricity:** one of the basic forms of energy. Electricity is associated with electric charge, a property of certain elementary particles such as electrons and protons, two of the basic particles that make up the atoms of all ordinary matter. Electric charges can be stationary, as in static electricity, or moving, as in an electric current.

### 3.4 Population & Sampling

A sampling frame is a comprehensive list of people, business, & organizations from which the researcher intended to select a sample. All of the persons or organizations making up researcher's market of interest are referred to as the population. The subset of person / organizations is selected for surveying the sample.

#### (I) Sampling Process

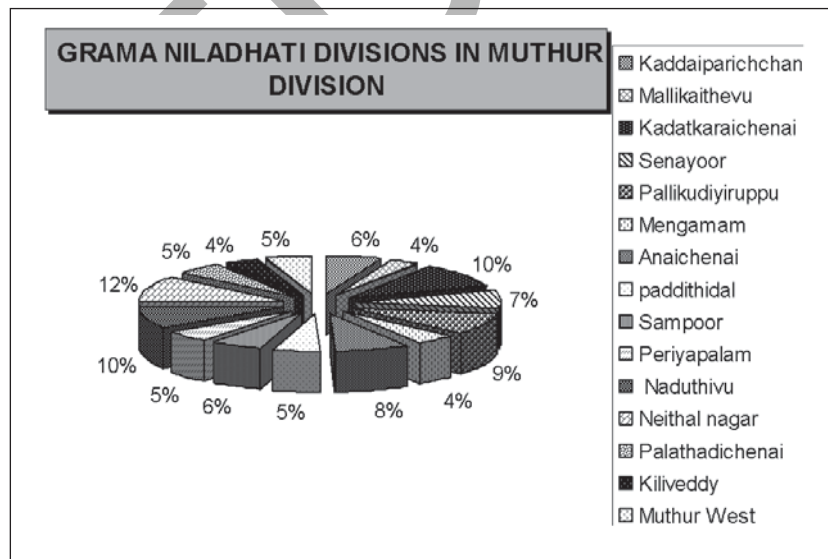
Stratified Random sampling method has been utilized to do the research from 15 G.S areas identified from the Muthur Divisional Secretariat Division. Approximately 150 questionnaires will be issued to residents of the selected GS areas:

**Table: 3.2**

No.	Strata	No. Of Families	No. of sampling data	Percentage (% of population +No. of sampling data)
01	Kaddaiparichchan	343	10	5.99
02	Mallikaithevu	201	6	3.51
03	Kadatkarachenai	595	13	10.39
04	Senayoor	425	11	7.43

05	Pallikudiyiruppu	539	13	9.42
06	Mengamam	251	8	4.39
07	Anaichenai	470	12	8.21
08	paddithidal	303	10	5.29
09	Sampoor	338	10	5.90
10	Periyapalam	285	8	4.98
11	Naduthivu	544	15	9.50
12	Neithal nagar	614	14	10.73
13	Palathadichenai	306	10	5.35
14	Kiliveddy	215	4	3.76
15	Muthur West	295	6	5.15
	<b>TOTAL</b>	<b>5724</b>	<b>150</b>	<b>100</b>

Source: Developed for the research purpose (Administrative Report, D.S. Muthur)



#### 4.6 FINDINGS

- ❖ In this area most of the people use the well water for both domestic and drinking purpose.
- ❖ More of the water is salt in this area.
- ❖ The people can get sufficient water from this area.
- ❖ June, July and August are the draught months in this area.
- ❖ In the draught season most of the people get water Waiting at the common pipe tab.
- ❖ In this area most of the people do not have the electricity facility, because of the high charges.
- ❖ Most of the people in this area facing problem while paying the electricity bill, the Bank/ Post – office is far away from their homes.
- ❖ Even in normal days also power cut has been held there.
- ❖ When there is no electricity most of the people use lamps.
- ❖ Due to the high charges most of the people in this area use electricity between 15-20 units.
- ❖ Even though there are telephone lines in the area, but half of the sample have phone at their homes.
- ❖ Most of the people have mobile phones.
- ❖ Most of the people said that land phone is more suitable for their life.
- ❖ Except Sri Lanka Telecom, Dialog GSM provides more services in this area.
- ❖ The charges for telecommunication are not reasonable.
- ❖ Sri Lanka Telecom does not care about the customers complaints.
- ❖ Most of the people in this area use bicycle as a transport mean.
- ❖ There is no convenience and sufficient transport.

- ❖ The responsible authority does not care about the repair of roads.
- ❖ There is need for additional transport means.
- ❖ There is no perfect management in road transport.
- ❖ The passengers have to wait long hours to traveling.
- ❖ Road is the suitable mode of transport to go to Trincomalee.
- ❖ There is no emergency transport services both road and sea transport.
- ❖ Most of the people in the area live in clay/cadjan house.
- ❖ Most of the people live in their relatives'/rental house for the purpose of financial problem.
- ❖ Most of them use their own money to build their house.
- ❖ Most of the people get loan from People's Bank.
- ❖ Most of the people get loan between Rs.50000 – Rs.75000.
- ❖ And the installment of 120 months.
- ❖ Difficulties faced living in clay/hadjan most people said leaks in the hadjan roof.
- ❖ To overcome the above problem most of them using asbestos sheets.
- ❖ Most of the houses were situated far away from hospital, bus stand, markets etc.

### **Conclusion and Recommendation**

#### **6.1 Introduction**

There are about 150 families in Muthur had been selected randomly without considering their background for the interrogation. In order to find out the infrastructure development the presentation of data, facts and figures are based on the presented questionnaires and answers for the interviews and observations. This chapter deals with the Strategy Formulation in order to achieve each sub objective and Action plan for each variable and conclusion.

## **6.2 Strategy Formulation**

In this chapter the recommendations are shown by formulating strategies. The Strategy Formulation in order to achieve each sub objective. Strategies are the ways to achieving the desired objectives and there will be a number of alternative strategies in order to ensure a single objective or a target.

The following are the alternative strategies to ensure a sub objective and among those some could be selected and implemented. In the next chapter an Action Plan has been drawn to point up the selected strategies.

### **WATER SUPPLY**

#### **Objective:**

1. Increase the no. of tube wells where water supply is inadequately supplied at present

#### **Strategies :**

- 1.1 Find out suitable places area-wise and dig more tube wells.

#### **Objective:**

2. Providing sufficient purified water for drinking and domestic purposes.

#### **Strategies :**

- 2.1 Distributing water in mobile water bowsers.
- 2.2 Construction of another source wells and put up powerful water pump.
- 2.3 Purify well water using chlorine.
- 2.4 Introduction of boiling technologies to purify.
- 2.5 Construction of sub tank and pump water from this to main tank.
- 2.6 Construction of Overhead Water Tanks in remote area to provide water.
- 2.7 Introduction of boiling technologies to purify.

**Objective:**

3. Providing additional water supply.

**Strategies :**

- 3.1 Using Ellakanthai/Ullai Kulam as source water and implement a major project.
- 3.2 Purifying lagoon water and use as source water.
- 3.3 Establishment of overhead tanks in each area.
- 3.4 Unused wells to be purified.
- 3.5 Establishment of new water reservoirs.
- 3.6 Clean the contaminated water.

**ELECTRICITY****Objective:**

1. Improve the existing electricity supply – hydro power

**Strategies:**

- 1.1 Establishing a 132 KV sub-station increasing the number of transformers (Erecting electric posts and drawing wires with fittings and fixtures.

**Objective:**

2. Providing uninterrupted power supply to whole area.

**Strategies:**

- 2.1 Introducing electricity saving devices or mechanism.
- 2.2 Establishing a sub station and increase the number of transformers.
- 2.3 Increase the number of solar power systems and its domestic usage.
- 2.4 Increase the capacity of solar power systems to use in small industries.
- 2.5 Installing small turbines across irrigation channels to produce small quantum of electricity.
- 2.6 Increase the use of Generators.
- 2.7 Increase the usage of high capacity solar power energy.
- 2.8 Allow more competitors in this field.

**Objective:**

3. Providing Street Lights for all the streets and continuous lighting.

**Strategies:**

- 3.1 Erection electric posts in all streets in suitable places.
- 3.2 Drawing wires
- 3.3 Purchase and fixing powerful street lamps.
- 3.4 Providing street lamps in new places.

**Objective :**

4. Reasonable electricity charges

**Strategies:**

- 4.1 Reduce the administrative cost
- 4.2 Reduce the monthly rental charges when the electricity is not in use.
- 4.3 Reasonable unit price should be charged whenever no meter is installed.
- 4.4 Take action to reduce the cost of power generation, transmission and distribution.

**Objective :**

5. Avoid electric short-circuit and shortages.

**Strategies:**

- 5.1 Proper & periodical checking of wires on electric posts
- 5.2 Cut the tree branches of trees which touch the wires
- 5.3 Cut the trees that touch the wires

**Objective:**

6. Maintain proper electricity supply

**Strategies:**

- 6.1 Advise consumers not to waste the electricity in order to eliminate the wastage of electricity.
- 6.2 Control consumption of electricity in small industries in peak hours.



- 6.3 Consumers should be notified to inform CEB regarding illegal electricity users.
- 6.4 Do not waste the electricity especially in drought season.
- 6.5 Inform consumers not to delay the electricity bill payments.
- 6.6 Instruct all users to keep the switch off whenever there is no need of electricity.

**Objective:**

- 7. Establish new electricity services

**Strategies:**

- 7.1 Construct new substation and connected to National Grid

**Objective:**

- 8. Provide Services to Public/Customers

**Strategies:**

- 8.1 Maintain stock of lamps and replace the burnt lamps on street lights.
- 8.2 In case any electrical appliances are damaged due to power fluctuation compensation should be paid to consumers.

**Objective:**

- 9. Establishing a Sub grid at Muthur immediately.

**Strategies:**

- 9.1 To increase the electricity supply.
- 9.2 To maintain continuous supply.

**Objective:**

- 10. Providing constant voltage

**Strategies:**

- 10.1 Installation of transformers to cope up with the voltage requirements.

**Objective:**

- 11 Providing additional electricity supply,

**Strategies:**

- 11.1 Construction of thermal power plant for generating electricity.

11.2 Introduction of wind power for domestic & agricultural purposes.

11.3 Using turbine rotated by current under the sea to produce electricity

## **TRANSPORT**

Transport between Muthur and Trincomalee are carried out in two ways such as Sea Transport and Road Transport.

### **Objective:**

1. Improve the existing transport – Sea Transport

### **Strategies:**

- 1.1 Increase the numbers of the sea transport services – 5 per day.
- 1.2 The vessels engaged in service have to be modernized to accommodate passengers.
- 1.3 Improvement to existing Jetty and maintenance.
- 1.4 Periodical repairs and maintenance of vessels for continuous service.

### **Objective:**

2. Improve the existing transport – Road Transport

### **Strategies :**

- 2.1 Allow more duty free vehicles especially omnibuses to be imported
- 2.2 Create a fixed time schedule in peoplised transport and regularize the services such as School Service, Office Staff Service and General Public Service. Particularly between 7.00 a.m to 5.00 p.m. to ease their travelling.
- 2.3 Purchase of more buses by the peoplised transport service in the funds allocated by the Government.
- 2.4 Allowing only road worthy vehicles to engage in public transport.
- 2.5 Condemned and uncomfortable vehicles should be disposed by the respective authority and the peoplised transport service

board should be provided comfortable buses, introducing semi luxury buses into service.

**Objective:**

3. Improve the corporate image

**Strategies :**

- 3.1 Improve the quality of transport service
- 3.2 Reduce the ticket fare
- 3.3 Issue Season Tickets to all students in these divisions.
- 3.4 Improve the available service

**Objective:**

4. Increase the number of transport buses/introduce modern transport system.

**Strategies :**

- 4.1 Eliminate the scarcity of buses
- 4.2 Maintain quality of buses
- 4.3 Engage luxury bus services
- 4.4 Engage ladies buses
- 4.5 Engage modern buses
- 4.6 Intercity bus service

**Objective:**

5. Increase the employment opportunities in the transport sector

**Strategies :**

- 5.1 Selection of employees could be done on the job training.
- 5.2 Provide workshop training to educated youth in mechanical engineering.

**Objective:**

6. Provide convenient transport service

**Strategies :**

- 6.1 Comfortable seats
- 6.2 Issuing of Season Tickets

- 6.3 Reasonable bus fare
- 6.4 Safety transport
- 6.5 Modern facilities such as TV, A/C etc.
- 6.6 Time schedule
- 6.7 Behaviour of Driver and the Conductor

**Objective:**

- 7. Develop the Transport Facilities

**Strategies :**

- 7.1 Engage more comfortable buses
- 7.2 Ensure the road worthiness of vehicles
- 7.3 Increase bus depots
- 7.4 Increase the bus routes
- 7.5 Dispose condemned buses
- 7.6 Construction of Highway (Asphalt road) from Muthur town to Colombo, Batticaloa etc.
- 7.7 Maintaining of all classes of roads
- 7.8 Widening the roads
- 7.9 Upgrading the classes of roads
- 8.0 Construction of Bridges, Culverts and Drainage System

**Objective:**

- 8. Construction of new roads

**Strategies :**

- 8.1 Construct new roads on Shramadana basis
- 8.2 Construct more roads in the villages (remote areas)

**Objective:**

- 9. Efficient management of transport system

**Strategies :**

- 9.1 Qualified and experienced staff personnel [Engineers/Managers]
- 9.2 Properly Trained Drivers & Conductors

### 9.3 Skilled Labourers

**Objective:**

10. Eradicate misuse in the administrative section

**Strategies :**

- 10.1 Employing unqualified personnel in the jobs
- 10.2 Not effecting punishments to wrong doers
- 10.3 Not supervising and overseeing the proper function of the system

**Objective:**

11. Expand road up to highway roads

**Strategies :**

- 11.1 Convert C, D class roads in to "A" class roads
- 11.2 Ensure continuous maintenance
- 11.3 Immediate repairs
- 11.4 Convert the metal, gravel paved roads into tar road

### TELECOMMUNICATION

**Objective:**

1. Improving the existing telecommunication system to whole area and to provide uninterrupted services.

**Strategies :**

- 1.1 Privatizing the SLT.
- 1.2 Introducing more mobile phones.
- 1.3 Increase payphone booths
- 1.4 Convert the analog system into digital
- 1.5 Using full capacity of the existing cable lines.

**Objective:**

2. Introducing more mobile phones and SLT phones.

**Strategies :**

- 2.1 Constructing a major telephone project providing 10000 lines in Muthur.

- 2.2 Permit more Mobile telephone service providers.
- 2.3 Reduce the establishment cost
- 2.4 Reduce the telephone rates.
- 2.5 Clear the coverage dialog system in all places in Muthur.
- 2.6 Employing foreign aids in developing TP cable lines.
- 2.7 Establishing sub telecommunication centers and makes link each other with antenna.

**Objective:**

3. Providing mobile phone coverage in all areas.

**Strategies :**

- 3.1 Establishing mobile phone towers in suitable areas.
- 3.2 Put up more mobile phone towers to increase the coverage.

**Objective:**

4. Using full capacity of the existing cable lines.

**Strategies :**

- 4.1 Engaging private agencies to carry out this task
- 4.2 Assistance from foreign funding institution to develop cable lines.

**Objective:**

5. Encouraging public to make use of SLT phones.

**Strategies :**

- 5.1 SLT has to provide telephone connection very quickly.
- 5.2 Service and maintenance should be done properly.
- 5.3 Increase the facilities such as reducing of telephone call charges, rental charges, etc.
- 5.4 Providing interrupted telephone services.
- 5.5 Providing modern facilities telephones to public
- 5.6 Introducing wireless telephones.
- 5.7 Increase the number of Payphone Booths.

**Objective:**

6. Providing additional telephone connections.

**Strategies :**

- 6.1 Establishment of a major telephone project.
- 6.2 Permit more Mobile Phone Service Providers.

**HOUSING****Objective:**

1. Improving the existing housing system

**Strategy:**

- 1.1 Convert houses with clay walls and hadjan roof into brick walls and tin/asbestos sheet or tiled roof.

**Objective:**

2. Solving housing problems of those who have no land and houses.

**Strategies :**

- 2.1 Find state bare land and building houses.
- 2.2 Bank loan facilities to purchase land and build houses or purchase house.

**Objective:**

3. Solving housing problems of those who have land but no houses

**Strategy:**

- 3.1 Build houses on their own with the assistance of financial institutions and funding agencies.

**Objective:**

4. Providing housing facilities to those who displaced due to on-going war and live in other areas/ refugee camps.

**Strategy:**

- 4.1 Allocating land in safety places and assisting to build houses providing building materials or build housing schemes to settle them.

**Objective:**

5. Providing housing facilities to tsunami affected persons

**Strategy:**

- 5.1 Allocating land in safety places apart from the Tsunami Buffer Zone and assisting to build houses by providing building materials or build separate houses to settle them

**Objective:**

6. Providing Building materials on control price.

**Strategy:**

- 6.1 Establishment of B.M.C. Branch at Muthur.

**Objective:**

7. Providing financial assistance under Rehabilitation Programme

**Strategies :**

- 7.1 Not only govt. Servants and business people but also the low income people can get the loan facilities from the banks for building their houses/other business purposes.
- 7.2 A sum of Rs. 15,000/- to be granted under Rehabilitation Programme to each family whose monthly income is below Rs. 1,000 to start construction of a house.

**Objective:**

8. Providing loan facilities for housing.

**Strategies :**

- 8.1 Encourage people to get housing loan from banks, on low interest.
- 8.2 Advise them to that they can resettle the payment in installment basis and they have dome discount when repaying loans.
- 8.3 Rural Development Bank also held meetings for poor farmers to tell them about the banking loan facilities, interest and even if they have not use lands/properties then they can mortgage them and can get loan.



**Objective:**

9. Providing helps to poor people

**Strategies :**

- 9.1 Convert all clay hadjan/tin sheet houses into brick wall and tile roof.
- 9.2 Till convert into brick house replacing the hadjans.
- 9.3 Providing Asbestos Roof Sheets.
- 9.4 Making drainages properly
- 9.5 Use polythene bags.
- 9.6 Establish hospitals with the basic facilities in each area like wise bus-stand, market and other essential places.

**Objective:**

10. Providing benefits under Housing projects.

**Strategies :**

- 10.1 Implementing 100000 Housing construction schemes.
- 10.2 Implementing Rehabilitation Projects for construction of houses.
- 10.3 Granting Housing loans on low interest.

**6.4 CONCLUSION**

Indisputably, Water and Shelter are very important for every human being other things such as transport, electricity and telecommunications come later. In the case of water most of the people living in the areas subjected to analysis are depending mostly on well water for drinking and domestic purpose and sea water for bathing and washing. Water is further contaminated due to various other reasons also such as cleaning agricultural implements and dumping small industries wastages, wastages from rice mills and garages in the water reservoirs and irrigation channels. Electricity is used only by a few people to the optimum and most of the electricity users use the minimum for lighting purpose alone due to heavy electricity charges. Since the electrical connections to houses are costly there are electricity piracies here and there. Since this is backward area in Muthur CEB does not take much care

to keep the stock of required items such as electric posts, wires, electric meters etc and the ignorance of the authorities is also an important reason for this plight. Transport is very poor compared to other areas all sections of people are suffered as far as transported is concerned. Roads are damaged and irreparable conditions so that buses cannot be driven speedily. Most of the problems faced by the people are due to lack of perfect management. Telecommunication most of the younger generations are using cell phones as they are available abundantly and easily. Permanent and reliable lines telephone services are very poor and not gettable easily. Maintenances of all these are poor. Under these circumstances people go to Telecommunication Service Centers where SLT line connection facilities are available and these lines are working properly. . If we take shelter most of the people have houses made of clay and thatched with hadjans or corrugated tin sheets. They are facing many problems. Such as, Hadjans get soaked and getting damaged, clay or sand washed out due to flood water, leaks in the hadjan roof. People have not built up their own houses due financial problems and land problems or both. And people are affected by natural disaster they have lost their livelihood and beloved ones due to Tsunami in this area.

INFRASTRUCTURE - ELECTRICITY SERVICE				
Objective No.	Strategy No.	Responsible Person	Duration	Results
1	1.1	Electricity Board	3 Years	Electricity requirement of whole division will be fulfilled. Power supply could be provided all the time without any interruption to all domestic and commercial purposes and street/road lighting. Illegal connection could be thwarted.
2	2.1	Consumers	Immediately	It will reduce the power consumption
	2.2	C.E.B	1 Year	Electricity requirement of whole division will be fulfilled. Power supply could be provided all the time without any interruption to all domestic and commercial purposes

	2.3	Residents	6 months	To fulfill the domestic power requirement of individuals and families.
	2.4	Small & Medium Entrepreneurs	1 year	Electricity requirement to small & Medium Industries
	2.5	C.E.B	2 years	To fulfill the Electricity requirements
	2.6	Small & Medium Entrepreneurs	Immediately	Electricity requirement to small & Medium Industries .
	2.7	Small Entrepreneurs	Immediately	Electricity requirement to small Industries.
	2.8	Private Electricity producers	1 Year	Provide electricity to more customers easily and quickly and expect reduced charges and well maintained services. When the production is more the unit price for consumers will be less.
3	3.1 3.2 3.3 3.4	C.E.B	immediately	Convenience to public during night times.
4	4.1 4.2 4.3 4.4	C.E.B.	immediately	When cost is lower most of the people will require electricity supply
5	5.1 5.2 5.3	C.E.B.	Immediately	Protect public from dangers.
6	6.1 6.2 6.3 6.4 6.5 6.6	C.E.B/ Small Entrepreneurs/ Residents	immediately	To safe electricity consumption
7	7.1	C.E.B	2 years	Electricity supply will be increased.
8	8.1	C.E.B.	Immediately	For the benefit of customers.
9	9.1 9.2	C.E.B.	2 years	To fulfill the electricity requirement at Muthur.

10	10.1	C.E.B.	Immediately	Avoid voltage drops.
11	11.1	Electricity Board	3 Years	Avoid electricity fluctuation and uninterrupted power supply when the water level of reservoirs go down. Cost of production will be higher than hydropower.
	11.2	Electricity Board/Govt.	1 Year	More production and low cost. When cost is lower most of the people will require electricity supply
	11.3	Electricity Board/Govt	3 Years	More production and low cost. When cost is lower most of the people will require electricity supply
<b>INFRASTRUCTURE TELECOMMUNICATION SERVICES</b>				
<b>Objective</b>	<b>Strategy</b>	<b>Responsible Person</b>	<b>Duration</b>	<b>Results</b>
1	1.1	Government	6 months	Privatizing will enable effective operation of Telecom
	1.2	Telecom, Private Mobile Telephone services	6 months	No need to put up cable lines to provide electricity and quality of telephone service also increase
	1.3	Telecom	6 months	Pay phone booths will provide telephone services at a lower rate
	1.4	Telecom	6 months	This will solve the engaging problem of '2' series numbers
	1.5	Telecom	3 months	Additional 1000 phones can be provided.
2	2.1 2.2 2.3 2.4 2.5	Telecom	02 years	Providing more telephone connections in Muthur and increase the usage of phones.
3	3.1	Mobile service providers	immediately	Private mobile telephone service will provide more telephones to public
4	4.1 4.2	Govt. Telecom	2 years	Providing more telephone connections in Muthur and increase the usage of phones

5	5.1 5.2	Telecom	1 year	When reduce the establishment cost, more people will get telephone services. Using antenna can provide more telephones because, cable lines limits the number of telephones
6	6.1	Telecom	2 Years	Providing at least 10000 telephones additionally
	6.2	Govt.	Immediately	Private mobile telephone service will provide more telephones to public.
<b>INFRASTRUCTURE - WATER SERVICES</b>				
<b>Objective</b>	<b>Strategy</b>	<b>Responsible Person</b>	<b>Duration</b>	<b>Results</b>
1	1.1	National Water Supply & Drainage Board	6 months	This will solve water problems in the remote villages
2	2.1	National Water Supply & Drainage Board	6 months	Shortage of water supply can be fulfilled
	2.2	National Water Supply & Drainage Board	2Years	Additional wells provide more source water
	2.3	National Water Supply & Drainage Board/ Residents	Frequently.	Protect from water borne diseases
	2.4	National Water Supply & Drainage Board	immediately	Protect from water borne diseases
	2.5	National Water Supply & Drainage Board	5 Years	Water can be collected in a sub tank and from this sub tank water can be pumped into main tank
	2.6	National Water Supply & Drainage Board	2 years	Shortage of water supply can be fulfilled

3.	3.1	Government	5 Years	A major project using some water from ..... tank will solve water problems prevailing in this division
	3.2	National Water Supply & Drainage Board	Immediately	By purifying wells additional water supply is expected to be provided.
	3.3	National Water Supply & Drainage Board/NGOO	6 months	To provide pipe borne water
	3.4	National Water Supply & Drainage Board	3 months	Distribution of water for drinking and domestic purposes
	3.5	Irrigation Dept.	3 years	Agriculture and other purposes
	3.6	National Water Supply & Drainage Board/NGOO	frequently	

#### INFRASTRUCTURE TRANSPORT SERVICES

##### Sea Transport

Objective	Strategy	Responsible Person	Duration	Results
1	1.1	Government & private Enterprises	6 months	No. of services will be increased between west side and east side of the division
	1.2 1.3	Government & private Enterprises	Periodically	Regular uninterrupted services Increase transport between Trincomalee & Muthur
	1.4	Govt.	1 Year	Provide safety and convenience to passengers

##### Road Transport

Objective	Strategy	Responsible Person	Duration	Results
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2	2.1 2.2 2.3 2.4 2.5	Government, Peoplised Transport Service	3 months	More vehicles will ply on the roads, PTS will collect more money by selling these unused buses and with that money more buses can be purchased. At the same time private enterprises will purchase these buses and they repair them cheaply and will employ on transport services
3	3.1 3.2 3.3	Peoplised Transport Service,Pvt. Transport Services	Immediately	The quality of transport service will be improved, ticket fare will be reduced, all available services will be improved
4	4.1 4.2 4.3 4.4 4.5 4.6	Peoplised Transport Service	1 Year	More buses will provide more transport facility to public, More vehicles are possible to be imported, the quality of buses will be improved, engaged more luxury buses, ladies only buses and intercity services
6	6.1 6.2 6.3 6.4	Government, Peoplised Transport Service, Traffic Police	Immediately	Convenience transport facility will be provided to public, issue season tickets immediately, time schedule transport, Good behaviour of conductors and drivers, reduce the accidents
7	7.1 7.2 7.3 7.4 7.5 7.6	Government, Peoplised Transport Service,	2 Years	Maintaining the existing roads, Lack of road facilities in the village side will be solved, roads will be upgraded, widening of roads, Bridges, Culverts and Drainage System will be constructed
9	9.1 9.2 9.3 9.4	Ministry of Transport, Government & Private	3 months	Qualified and trained staff will be appointed, skilled labourers and give training to drivers.
8	8.1 8.2	Road Development Authority, Ministry of Transport,	5 Years	With foreign aids, roads can be developed, Lack of road facilities in the village side will be solved, This will allow convenience transport

10	10.1 10.2 10.3	All the related bodies, Government	Periodically maintained.	a) To avoid appoint unqualified persons b) supervising and overseeing the proper function of the system c) effecting punishments to wrong doers
11	11.1	All the related bodies	2 Years	Continuous maintenance of roads, roads will be repaired Immediately, the metal, gravel paved roads are converted into tar road
	11.2 11.3 11.4	Government/ NGOO, All the related bodies, Road Development Authority	1 Year	With foreign aids road can be developed. Lack of road facilities in the west side will be solved
<b>INFRASTRUCTURE HOUSING FACILITIES</b>				
<b>Objective</b>	<b>Strategy</b>	<b>Responsible Authority</b>	<b>Duration</b>	<b>Results</b>
1	1.1	Assistance from NHDA & NGOs	1 year	Protected house from rain and flood.
2	2.1 2.2	Govt./State Banks/NGOs	1 year	People will have their own houses.
3	3.1	Banks/NGO/ NHDA	2 years	People will have their own houses.
4	4.1	Ministry of Rehabilitation/ NHDA, NGOs, Financial Institutions and Funding Agencies.	2 Years	People will have their own houses in safety places.
5.	5.1	Ministry of Rehabilitation/ NHDA, NGOs, Financial Institutions and Funding Agencies.	2 Years	Assisted 1300 families fully affected by Tsunami with housing grant and loan



6	6.1	Government, BMC, Chief engineer	3 years	Obtaining building materials at control price
7	7.1 7.2	Ministry of Rehabilitation/ NHDA, NGOs, Financial Institutions	2 years	Assisted 1500 families fully affected by Tsunami with housing grant and loan
8	8.1 8.2 8.3	Ministry of Housing & Public Utilities, State Banks - People's Bank Bank of Ceylon, Rural Development Bank	3 Years	Provided credit facilities for housing to 1000 low/middle income level families.
9	9.1 9.2 9.3 9.4 9.5	National Housing Development Authority, D.S & NGOO	1 year	Provided 750 poor income level families with permanent houses, People will have their own houses in safety places as they had earlier.
10	10.1 10.2 10.3	Govt. Secretary, Housing Loan(NHDA), Co- ordinator, Secretary	2 years	Reduce shortage of housing for poor families,